Rotterdam Fire District #1 Firehouse Upgrades
Environmental Assessment

April 23, 2016

Project Name:	Rotterdam Fire District #1 Firehouse Upgrades
Project Location:	1215 Main Street, Rotterdam Junction, New York 12150
HTFC SHARS #:	N/A
Federal Agency:	US Department of Housing and Urban Development
Responsible Entity:	New York State Homes and Community Renewal
Responsible Agency's Certifying Officer:	Thomas J. King, Assistant General Counsel and Certifying Officer
Project Sponsor:	Rotterdam Junction Fire District No. 1
Primary Contact:	Dormitory Authority of the State of New York (DASNY) 515 Broadway Albany, New York 12207-2964
Project NEPA Classification:	24 CFR 58.36 (Environmental Assessment)

Environmental Finding:	**X** Finding of No Significant Impact - The project will not result in a significant impact on the quality of the human environment.
	☐Finding of Significant Impact - The project may significantly affect the quality of the human environment.
Certification	The undersigned hereby certifies that New York State Homes and Community Renewal has conducted an environmental review of the project identified above and prepared the attached environmental review record in compliance with all applicable provisions of the National Environmental Policy Act of 1969, as amended (42 USC Sec. 4321 et seq.) and its implementing regulations at 24 CFR Part 58.
Signature	Thomas J. King

Environmental Assessment Prepared By:	Consultant: Tetra Tech, Inc. Address: 1999 Harrison Street, Suite 500 Address: Oakland, CA 94612

CERTIFICATION OF NEPA CLASSIFICATION

It is the finding of the New York State Housing Trust Fund Corporation that the activity(ies) proposed in its 2015 NYS CDBG-DR project NYS CDBG-DR project, Rotterdam Fire District #1 Firehouse Upgrades are:

Check the applicable classification.

☐ Exempt as defined in 24 CFR 58.34 (a).

☐ Categorically Excluded as defined in 24 CFR 58.35(b).

☐ Categorically Excluded as defined in 24 CFR 58.35(a) and no activities are affected by federal environmental statues and executive orders [i.e., exempt under 58.34(a)(12)].

☐ Categorically Excluded as defined in 24 CFR 58.35(a) and some activities are affected by federal environmental statues and executive orders.

☒ "Other" neither exempt (24 CFR 58.34(a)) nor categorically excluded (24 CFR 58.35).

☐ Part or all of the project is located in an area identified as a floodplain or wetland. For projects located in a floodplain or wetland, evidence of compliance with Executive Orders 11988 and/or 11990 is required.

For activities excluding those classified as "Other", attached is the appropriate Classification Checklist (Exhibit 2-4) that identifies each activity and the corresponding citation.

Signature of Certifying Officer — April 23, 2016 Date

Thomas J. King
Assistant General Counsel and Certifying Officer

CERTIFICATION OF SEQRA CLASSIFICATION

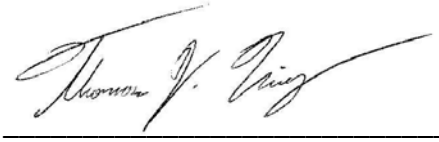
It is the finding of the New York State Housing Trust Fund Corporation that the activity(ies) proposed in its 2015 NYS CDBG-DR project NYS CDBG-DR project, Rotterdam Fire District #1 Firehouse Upgrades constitute a:

Check the applicable classification:

- ☐ Type I Action (6NYCRR Section 617.4)
- ☐ Type II Action (6NYCRR Section 617.5)
- ☒ Unlisted Action (not Type I or Type II Action)

Check if applicable:

- ☐ Environmental Impact Statement (EIS) Prepared
  - ☐ Draft EIS
  - ☐ Final EIS



_____ April 23, 2016

Signature of Certifying Officer Date
Thomas J. King
Assistant General Counsel and Certifying Officer

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]**:**
The Proposed Project is located on a 1.6-acre parcel at the Rotterdam Fire District #1 firehouse at 1215 Main Street, Town of Rotterdam, Schenectady County, New York. (See **Appendix A**, Figures). The Proposed Project is comprised of several component upgrades and improvements required for the firehouse to meet federal- and county-recommended standards as a functional emergency operations center for the Western Mohawk River Valley Region of Schenectady County. These upgrades and improvements include providing an approximately 3,126 square feet addition on the east side of the existing firehouse, comprised of a multi-purpose area, a triage area, and an emergency vehicle storage room that also would include a switchgear generator room. (See **Figure 1**, Site Plan, at the end of this narrative and **Appendix B**, Site Plans.) Approximately 16 parking spaces would be added to the east of the additions to replace the 17 parking spaces displaced by the proposed additions. The parking area would include dedicated handicap parking and a ramp to the new sidewalk. The Project would be constructed on the existing Rotterdam Fire District #1 property. No land acquisition is anticipated.

The multi-purpose area and restrooms would include two aluminum storefront entrances; three floor-mounted commercial water closets; one urinal; four lavatories; two Americans with Disabilities Act (ADA)-compliant modular showers; standard toilet partitions and accessories; and two drinking fountains. The exterior of the building would be clad with brick and concrete masonry veneer. The roof would have a sloped metal deck and would be covered with a rubber roofing membrane. In order to enable the firehouse to serve as a shelter for responders and an assembly area for storm victims, particularly those needing emergency medical treatment, the new construction also would house an emergency operations command center, triage area, and storage space. The generator room would be at the southeast corner of the building, away from the triage area and the existing building and separated from the addition by a fire-rated wall to protect the users of the facility.

Other improvements incorporate mechanical, electrical, and plumbing upgrades. Mechanical improvements to the interior environment of the firehouse include the installation of an energy efficient roof-mounted air conditioning system. Gas fired unit heaters, a roof mounted exhaust fan at the generator room, and a new roof mounted exhaust fan for toilet rooms for the addition also would be provided. Establishment of a power system backup would entail acquisition and installation of a 125kva natural gas-powered generator at the exterior of the building, connection of the generator to the firehouse electrical system with required upgrades, an automatic transfer switch and increased electrical feed to 400-amp service from standard power supply to support required electrical upgrades. In addition to new plumbing fixtures, the Project would provide an oil separator for floor drains in the garage; furnish an instantaneous gas-fired, direct-vent hot water heater; and modify the existing water service to be used only for filling of tanker trucks.

Removal of existing building components would be required in order to make the proposed changes. These removals include: one hollow metal door and frame; four windows; two four feet by four feet concrete pads; approximately 74 feet of roof edge and soffit at the junction with the proposed addition; eight concrete parking stops; one aluminum door canopy; two two-feet

concrete bollards; one air conditioner condenser unit; and three exterior wall-mounted light fixtures. Two vent pipes to the exterior of the existing building would require sealing during construction and rerouting through the new roof, and miscellaneous television cables and air conditioning condenser would require protection and reinstallation above the existing roof.

The subsurface below the footprint of the proposed addition is a layer of fill composed of black cinders, or black cinders with layers of brown silt, extending 3 to 5 feet below the pavement surface. To adequately support the addition to the firehouse, the cinder fill would be removed and replaced with structural fill material (compacted soil). Additional site work would include grading the new parking area, installing concrete sidewalks and curbs, installing new bollards, adding a storm water infiltration bed, and adding topsoil and seeding disturbed areas to establish a lawn.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:
Flood waters from Hurricane Irene and Tropical Storm Lee inundated Rotterdam Junction in the Town of Rotterdam, Schenectady County, New York. Due to flooding on Route 5S and storm damage to the Route 103 Bridge, Rotterdam Junction was effectively turned into an island surrounded by debris-laden flood waters. At the center of the island, the Rotterdam Fire District #1 firehouse provided survivors with a safe place for meals, medical treatment, shelter, showers, donations, and recovery assistance. Because of the ad hoc use of the firehouse as an emergency shelter and command center, its capacity to operate was severely challenged during the flooding and demonstrated a need for improvements to the facility.

The purpose of this Project is to develop the firehouse as an emergency center. Upgrades and improvements are required to meet recommended standards of the Federal Mass Care Service Delivery System and Schenectady County Emergency Operations Plan so that the Rotterdam Fire District #1 firehouse can be established as a functional emergency operations center for the Western Mohawk River Valley Region of Schenectady County.

This Project would increase the efficiency of the response effort and the safety of residents and volunteers and would allow the fire district to serve the community more effectively.

Existing Conditions and Trends [24 CFR 58.40(a)]:
Rotterdam was settled by the Dutch in 1661. It was formally established as a Town in 1820. The Town contains a mix of residential neighborhoods, retail, service corridors, industry, open spaces and agriculture. Because Rotterdam has historically been oriented toward the Mohawk River, many of its critical natural, economic, recreational, historic, and residential assets are located in the flood-prone portions of the community. (Source: 2.)

Rotterdam has instituted regulatory reforms to protect lives and property in the event of flooding. Rotterdam has zoning, and periodic updates have designated waterfront areas that restrict new development in the flood zones. Updates to the zoning code have been instituted to protect wellhead areas and foster recreational enhancements. (Source: 2). As with other

municipalities and planning agencies, the Town of Rotterdam is seeking to increase the resiliency of its infrastructure and its capability to provide essential services during emergencies and abnormal climatic events. Similar projects, including installing emergency generators, upgrading emergency operation centers and shelters, raising roads that serve as evacuation routes, and improving stormwater management facilities, are being planned and implemented throughout the state.

Funding Information

Estimated Total HUD Funded Amount: $1,403,000
Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**:** $1,403,000

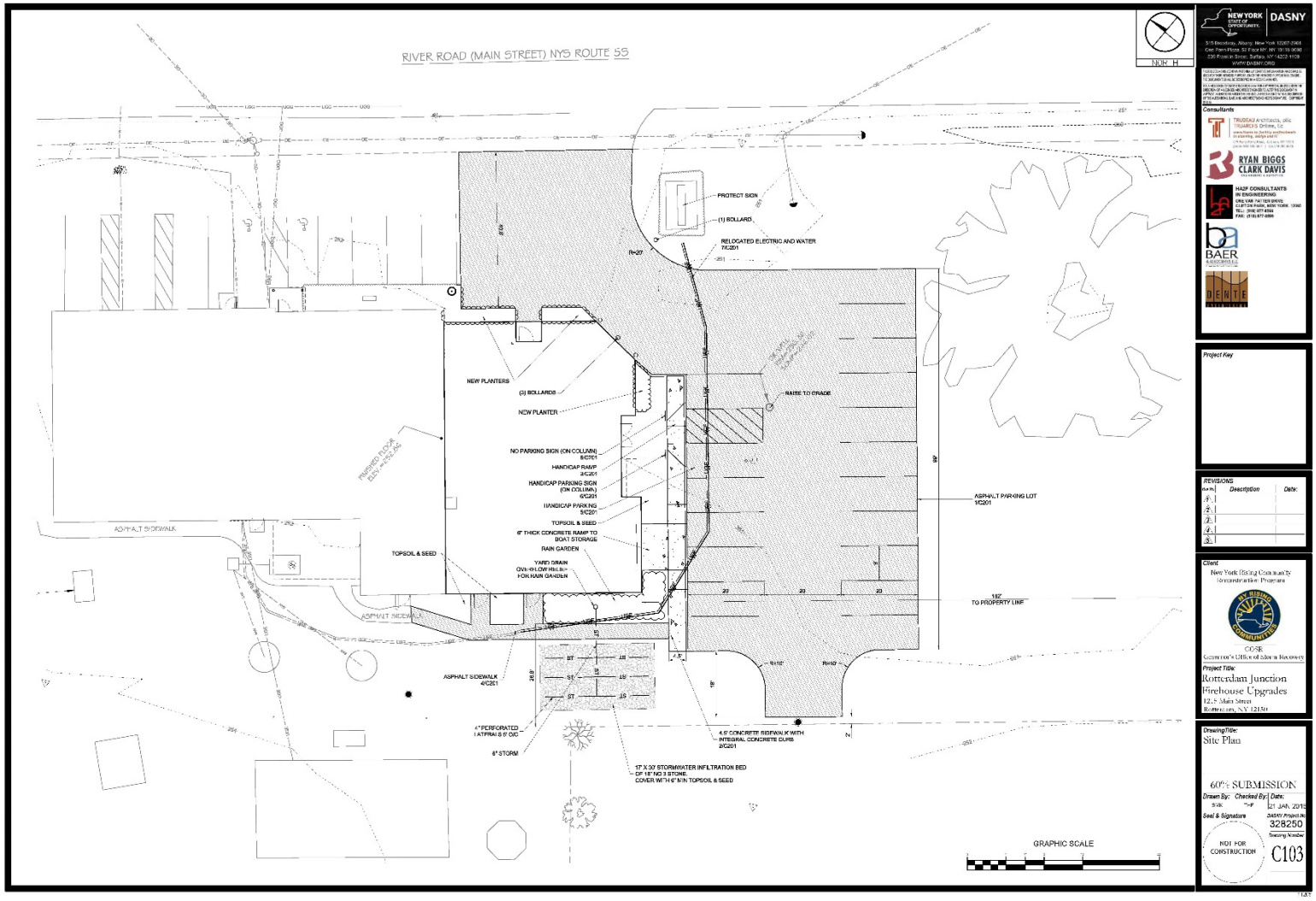


Figure 1 – Site Plan

Compliance with 24 CFR 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the nec essary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☒ No ☐	Based on HUD guidance in Fact Sheet #D1, the National Plan of Integrated Airport Systems (NPIAS) was reviewed for civilian, commercial service airports near the Project site, as projects within 2,500 feet of a civil airport or 15,000 feet of a military airport require consultation with the appropriate airport operator or confirmation that the site is not within a designated Runway Protection Zone/Clear Zone (RPZ/CZ). No active civil airports are within 2,500 feet of the Project site. The Project is not within 15,000 feet of any military airport. (See **Appendix A**, Figures, Airports.) **Source: 3, 4**
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	The Project site is not in a Coastal Barrier Resources Act area as defined by the state's Coastal Zone Management Program. (See **Appendix A**, Figures, Coastal Barrier Resources.) **Source: 5, 6**
Flood Insurance	Yes ☐ No ☒	The Project site is not within a Special Flood Hazard Area (SFHA), as indicated on the Federal Emergency Management Agency

Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]		(FEMA) Flood Insurance Rate Map (FIRM) Community Panel Number 36093C0153D, dated January 8, 2014. (See **Appendix A**, Figures.) **Source: 7**
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☐ No ☒	The Project site is not included in the most recent listing of nonattainment or maintenance areas for inhalable particulate matter (PM2.5) or the 2008 8-hour ozone standard, as defined by the US Environmental Protection Agency (EPA) Green Book Nonattainment Areas for Criteria Pollutants. It is listed as Marginal for the 1997 8-hour ozone standard. The Project would not require an NYS Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit. The Project activities would not substantively affect air quality. The Project size is consistent with the New York State Implementation Plan (SIP). Implementation of standard best management practices (BMP) would control dust and other emissions during construction. Air quality impacts would be short term and localized. Air qualify effects of permanent increases in traffic would be minimal. (See **Appendix A**, Figures.) The proposed emergency generator is subject to the stationary Reciprocating Internal Combustion Engine (RICE) Maximum Achievable Control Technology (MACT) regulations at 40 CFR 63 ZZZZ that govern emission limits and compliance requirements for existing and new stationary RICE. Any new compression ignition generator will have to comply with 40 CFR 60, Subpart IIII, and any new spark

		ignition generator will have to comply with 40 CFR 60, Subpart JJJJ. Compliance will be demonstrated by purchasing an engine certified to the limits in these regulations. As these emergency engines do not require NYSDEC permits or registrations, are not located at major sources of HAP emissions, and are not intended for use in demand response programs, the Proposed Project would not trip conformity thresholds, do not require notification, and would likely not result in direct nor indirect adverse impacts to air quality. Therefore, the conformity determination requirements do not apply to the Proposed Project. Any air quality impacts would be short-term and localized during construction and therefore no significant adverse impacts to air quality are anticipated. **Source: 8, 29**
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☒	The Project site is not in a coastal zone as defined by the state's Coastal Zone Management Program. (See **Appendix A**, Figures.) **Source: 5**
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☒ No ☐	The Project site has been previously disturbed but is undeveloped. No hazardous or solid waste storage is evident on the site, and the Project would not expose new populations to hazardous or nuisances because no new populations would reside on the Project site. A search of the New York State Department of Environmental Conservation (NYSDEC) Bulk Storage Program Database identified five petroleum bulk storage facilities and one chemical bulk storage facility within 1 mile of the Project site (See **Appendix A**, Figures.) A search of the NYSDEC Remedial Site Database that contains records of the sites being

		addressed under one of DER's remedial programs (State Superfund, Brownfield Cleanup, Environmental Restoration and Voluntary Cleanup, the Registry of Inactive Hazardous Waste Disposal Sites, and Institutional and Engineering Controls), identified two State Superfund Program hazardous waste sites within 1 mile of the Project site (See **Appendix A**, Figures.) EPA's NEPAssist mapping tool identified 22 EPA-regulated facilities within 1 mile of the Project site: one major air pollutant, hazardous waste, toxic substances, and greenhouse emissions facility, listed in several databases including the Toxic Substance Control Act database; two brownfields sites; one minor air compliance facility; one conditionally exempt small quantity waste generator; three Resource Conservation and Recovery Act (RCRA) facilities; and one facility listed in the National Compliance Database (NCDB), which supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The remaining 15 sites were listed were listed in the facility information system for New York (FIS). The FIS, managed by the NYSDEC, houses all information about facilities that are regulated or of environmental interest to the state of New York. The Project site was not identified in any of the databases searched. Subsequent site investigation, as described in Trudeau Architects 60 Percent Report on February 5, 2016 (see **Appendix B**), identified railroad cinders, a residue from coal combustion by railway engines, underlying the Project site. According to the subsurface investigation report on March 8, 2016, No volatile organic compounds were

		detected in any of the soil samples collected from the Project site. The analytical results identified semi-volatile organic compounds, specifically polyaromatic hydrocarbons, and metals in the subsurface soil at concentrations below the applicable Soil Cleanup Objectives for the for the zoning of the Project site (Restricted Use-Commercial).The underlying cinders would not pose a health hazard for the Project and are not considered hazardous waste when disposed of or removed to make room for the required structural fill. The excavated material would be disposed of in accordance with the applicable local, State, and Federal regulations, and the excavated soil would be tested again if required by the permit requirements of the proposed disposal facility. (See **Appendix C**, Hazards, for the subsurface investigation report and analytical results for testing of the cinder samples.) A Report of Asbestos, Lead Based Paint, and PCB Survey Services in November 2015 stated that asbestos-containing material (ACM) and lead-based paint (LBP) were used in construction of the existing building, so asbestos and lead abatement activities or special work practices would be done prior to or during the renovation or alteration of the structure to protect workers and the environment from these materials. No polychlorinated biphenyl (PCB)-containing caulk was identified in samples at the Project site. (See **Appendix C**, Hazards) According to the EPA, the Project site is in Radon Zone 2, where the predicted average indoor radon screening level is between 2 and 4 picoCuries per liter (pCi/L), a moderate potential for elevated indoor radon levels. The average first-floor radon

		level in Schenectady County homes was estimated to be 2.3 pCi/L. Average basement levels were estimated to be 4.91 pCi/L. Approximately 4 percent of homes in the Town of Rotterdam had radon levels of pCi/L. The New York State Department of Health (NYS DOH) and the EPA use 4 pCi/L as a recommended action level for residential radon exposure. When testing indicates that the radon level in the lowest primary living area of the home is above this action level, the NYS DOH recommends that the homeowner take appropriate corrective action to remove radon from a home. The action level does not apply to businesses or commercial buildings. The action level was developed for residential use which includes long duration and long term occupancy. Also the structure of a home, which includes small closed rooms, is not comparable to large open commercial structures such as the fire station. The fire station is considered a commercial building with intermittent occupancy. Currently, no federal regulations govern acceptable radon levels for commercial and industrial environments. EPA recommends abatement or remediation when indoor radon air concentrations equal or exceed 4 pCi/L. OSHA regulations require surveys in order to comply with the provisions in 29 CFR 1910.1096. These regulations also apply to workplaces where radon concentrations are below 4 pCi/L. OSHA regulations require surveys in order to comply with the provisions in 29 CFR 1910.1096. These regulations also apply to workplaces where radon concentrations are below 4 pCi/L. The OSHA dose limit for whole body radiation is 1.25 rems per calendar quarter. The Environmental Protection Agency (EPA)

		radon guidelines are not occupational safety and health standards and do not carry the weight of law. EPA recommends remediation when the radon level is 4 pCi/L or higher. However, radon levels less than 4 pCi/L pose a risk and in many cases may be reduced. HUD regulations at 24 CFR 50.3(i) and 58.5(i)(2) require all property to be free of contamination where a hazard could affect the health and safety of occupants or conflict with the intended use of the property. Section 50.3(i) states that "It is HUD policy that all property proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gasses, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property". Therefore, after construction completion, surveys would be conducted after construction and appropriate mitigation would be applied to ensure that whole body radon exposure of is below 1.25 rems per calendar quarter. All testing and mitigation would be done prior to occupancy. **Source: 9, 10, 11**
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☒ No ☐	The US Fish and Wildlife Service (USFWS) online review process, completed on June 4, 2015, found only one threatened or endangered species on the USFWS official list of species that may occur in the boundary of or may be affected by the project, the threatened northern long-eared bat (*Myotis septentrionalis*) (NLEB). On December 2, the USFWS concurred with the determination that the project may affect, but is not likely to adversely affect the northern long-eared bat.

		Several migratory birds of concern that could be affected by the Proposed Project also were identified in the online review process. The USFWS stated in a letter on December 2, 2015, that there were no known hibernacula or known roosts near the Project. The USFWS recommended doing tree removal in winter to avoid any potential for impacting any bats that could be present, and that practice would be beneficial to migratory birds. Therefore, trees would be removed between November 1 and March 31. On April 7, 2016, the USFWS was notified by email that one tree would require removal outside of this window. The email indicated that the proposed action is not likely to adversely affect NLEB because there are no known NLEB hibernacula or roosts near the Project. On April 11, 2016, the USFWS concurred with this assessment and stated that no further consultation would be required regarding the NLEB. On December 3, 2015, the New York Natural Heritage Program (NHP) was contacted regarding potential rare or state-listed animals or plants near the Project site. On December 18, 2015, the NHP responded that are no records of rare or state-listed animals or plants, or significant natural communities at the Project site or in its immediate vicinity. (See **Appendix D**, USFWS and NYNHP Correspondence, and **Appendix A**, Figures.) **Source: 12**
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☒	No changes in operations would occur. There would be no changes in the population that would be present on the site that could introduce sensitive public

		uses at the site that could be exposed to explosive or flammable hazards. The Project would not involve the storage of explosive and flammable materials.
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ☒	The soils at the Project site are identified as Prime Farmland soils; however, they are not within a New York state agricultural district. The Project site has been disturbed and is used as a parking area. The Project falls under the Farmland Protection Policy Act small acreage exemption of 3 acres or less because the area of disturbance is limited to 0.08 acre (3,500 square feet). According to Part 523.11 E of the Farmland Protection Policy Act (FPPA) Manual, an AD 1006 Farmland Conversion Impact Rating Form and evaluation is not required for this Project, and it is exempt. (See **Appendix A**, Figures.) **Source: 13**
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes ☐ No ☒	The project site is not in in an SFHA, as shown on the FEMA FIRM Community Panel Number 36093C0153D, dated January 8, 2014. **Source: 7**
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800; Tribal notification for new ground disturbance.	Yes ☐ No ☒	Consultation with the New York State Office of Parks, Recreation and Historic Preservation's Division for Historic Preservation (OPRHP), also known as the New York State Historic Preservation Office (SHPO) was initiated on September 1, 2015. The SHPO requested a Phase IA/IB Archeological Investigation because the disturbance for the proposed parking expansion for the Project includes footings that are likely go below the depth of disturbance for the existing parking lot. The alluvial soils suggest the potential for buried archeological deposits.

		The Phase IA/IB Archeological Investigation included testing in the parking area and adjacent open lands to the east, so the stratigraphy across the site was also investigated. The IA/IB Archeological Investigation report for the Project was completed in October 2015. The Phase IA background and literature search suggested that the proposed Project area has a low sensitivity for pre-contact and historic cultural resources. The Phase IB field investigation indicated that significant cultural resources do not exist in the Project area. On November 30, 2015, the SHPO concurred with the findings of the report that there would be no historic properties affected by the proposed undertaking. (See **Appendix E**, SHPO Correspondence and Phase IA/IB Archeological Investigation) The Delaware Tribe of Indians was identified as a possible consulting party and was sent a letter with the site description, photographs, site plan, and map. In a letter on October 19, 2015, the Delaware Tribe stated that its review of the materials provided found that there are no religious or culturally significant sites in this area due to disturbance, and there were no objections to the Project (See **Appendix F**, Tribal Correspondence). **Source: 15, 16**
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☐ No ☒	There would be no changes in the population that would be present on the site, so there would be no change in exposure for noise-sensitive populations.
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☒ No ☐	The Project site is within the bounds of the Schenectady-Niskayuna Sole Source Aquifer Designated Area (See **Appendix A**, Figures.) In the Town of Rotterdam, there are four

		Wellhead Protection Zones that allow different actions/activities while still protecting the groundwater. Zone I Wellhead Protection Zone is the most protective. The Rotterdam District #1 firehouse is in Zone I, approximately 400 feet southwest of public water supply wells for the Town of Rotterdam Water District #3 serving Rotterdam Junction on the east side of River Road. In this area there are many nonconforming uses such as automotive repair, restaurant, and the volunteer fire department. Regulations for this Wellhead Protection Zone I include: 1. All land uses and development activities other than those directly connected with the pumping and treatment of public water supplies is prohibited (with the exception of existing single family residences); and 2. The handling of hazardous, toxic, or other waste substances is prohibited. Although the Project would not be consistent with the first regulation, it is an existing development that the Project would modify within the parameters of the existing use. Consultation with the EPA on September 16, 2015, determined that the Project satisfies the requirements of Section 1424(e) of the Safe Drinking Water Act (SDWA), and the Project would not adversely affect the drinking water supply. (See **Appendix G**, for the sole source aquifer consultation letters.) In addition, the Project would have the beneficial effect of removing the railroad cinders beneath the project site and replacing them with structural fill. In a letter dated April 12, 2016, (included in **Appendix G**) the Schenectady County Groundwater Management Planner

		indicated that a variance is required for the Project because the proposed upgrades are not an allowable use of land in Aquifer Zone 1. Therefore, a variance will be obtained from NYS DOH prior to construction in accordance with Schenectady Aquifer Watershed Rules and Regulations (WRR) contained in 10 NYCRR 142.2. **Source: 11, 17**
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☒	The Project site is not on or adjacent to wetlands, as identified by NYSDEC and NWI (See **Appendix A**, Figures.) **Source: 18, 19, 20**
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes ☐ No ☒	There are no state or federally designated wild and scenic rivers at or near the project (See **Appendix A**, Figures.) **Source: 21, 22, 23**
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes ☐ No ☒	The Project site is not in or adjacent to areas with environmental justice populations, as defined by NYSDEC based on data from the 2000 U.S. Census (See **Appendix A**, Figures.) **Source: 24**

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.
(1) Minor beneficial impact
(2) No impact anticipated
(3) Minor Adverse Impact – May require mitigation
(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The Project site is currently owned by Rotterdam Fire District #1 and would not require the acquisition of new land or changes to land use plans or zoning. The Project is part of the City of Schenectady and Town of Rotterdam New York Rising Community Reconstruction Plan, and the Planning Committee and members of the public consider the Rotterdam Fire District #1 firehouse critical to flood disaster mitigation, preparedness, and response and recovery efforts in both a local and regional capacity. **Source: 2, 25**
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	3	The Project site is relatively flat, with less than 5 percent slope, and is in a semi-developed setting (See **Appendix H**, Topographic Map). The Project would not result in impacts to slope or create a source of erosion on or off the site. The addition would connect to the existing water, sewer, and storm drain utilities. Redevelopment of the Project site would not create stormwater runoff that would adversely affect these drainage systems.

		The soil at the site (Howard gravelly silt loam 0 to 3 percent slopes) is not limited for construction purposes. The soils on the majority of the Project site have a moderate potential soil-induced electrochemical or chemical action that corrodes or weakens concrete and a high potential for corrosion of uncoated steel. They are poorly suited to mechanical surface preparation but are only somewhat limited for gravel and paved roads. The 60 percent submission geotechnical engineering report by Trudeau Engineers identified the subsurface below the existing parking area as a layer of fill composed of black cinders or black cinders with layers of brown silt, extending 3 to 5 feet below the pavement surface. Beneath the fill is a layer of brown silt containing occasional seams of fine sand with some silt. Beneath the silt layer is a deep deposit of sand and gravel with trace amounts of silt. To adequately support the addition to the firehouse, the cinder fill would be removed and replaced because the existing cinder fill materials are not suitable for support of new building foundations or floor slabs. The native soils underlying the fill consist of silt that may be wet and sensitive to disturbance during wet periods of the year. For this reason, removal and replacement of the fills should be planned, if possible, during a seasonal dry period. (See **Appendix B**, Site Plans, for the geotechnical engineering report.) A State Pollutant Discharge Elimination System (SPDES) General Stormwater Permit would not be required because the amount of ground disturbance at the site would be less than 1 acre. The increase in impervious surface on the site would be the approximately 3,500-square foot addition on the south side of the existing building (0.08 acre, approximately 4.2 percent of the 1.9-acre Project site) and the relocation of parking areas displaced by new construction. **Source: 13**
Hazards and Nuisances including Site Safety and Noise	2	The Project site is in areas affected by Hurricane Irene and Tropical Storm Lee, but, it is not in a 100- or a 500-year flood hazard area. No other known natural hazards,

		including earthquake fault zones, landslide zones, or hazardous terrain, are at or near the Project site. The Project would generate noise during construction that would be minimized through compliance with local noise ordinances, including time-of-day work limitations. Exterior construction activities would take place during normal working hours and would employ commonly accepted engineering and administrative controls that would minimize noise impacts to neighbors. Interior construction activities would have negligible impact to neighbors. **Source: 7, 9, 10, 11, 13**
Energy Consumption	3	Electricity would be provided by National Grid. The existing facility is equipped with a 200-amp, three-phase electrical service, originating on Main Street. The main 200-amp panel is in the existing command room. This panel feeds several subpanels in the building. The existing 200-amp service to the building would be abandoned, and a new 400-amp, three-phase service would be provided as part of the Project. This service would originate in the rear of the building with new main distribution panel in the storage room. This panel would sub-feed to the existing main distribution panel and associated sub panels. A natural gas generator, sized to power entire building, would be located behind the building. Light-emitting diode (LED) lighting would be provided through the new addition. Lighting levels would be based on current Institute of Electrical and Electronics Engineers (IEEE) recommendations. A 1-inch, high pressure, gas line provides natural gas to the existing facility. No changes to this service are anticipated as a result of the Project.

Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	2	There would be a temporary minor increase in employment during construction and no increase in long-term employment.
Demographic Character Changes, Displacement	2	There would be no changes to residential or employment patterns or demographics due to this Project. Because the Project would not increase housing or long-term employment, no population changes would result. No residents or businesses would be displaced. There would be no demographic character changes or displacement impacts.

Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	Because the Project involves no changes in population, there would be no impact on demand for educational or cultural facilities.
Commercial Facilities	2	Because the Project involves no changes in population, there would be no impact on demand for commercial facilities.
Health Care and Social Services	2	Because the Project involves no changes in population, there would be no impact on demand for health care and social services.
Solid Waste Disposal / Recycling	2	The project would modify existing facilities that currently operate at the site. There would be no increase in solid waste disposal or recycling from normal operations. Construction would result in a temporary increase in solid waste. Construction debris would primarily be materials left over from construction. These include wood, piping, appliances, and other materials commonly used in construction that would be recycled as appropriate. Asbestos-containing and lead-based paint construction debris would be disposed of at a permitted municipal solid waste landfill in accordance with the requirements of 6 NYCRR 360-2.17(p) and by a transporter with a valid New

		York State Part 364 Waste Transporter Permit in accordance with 6 NYCRR Part 364. **Source: 26**
Waste Water / Sanitary Sewers	1	No expansion of the sanitary sewer system would be required. The Project site is currently served by a private on-site septic system. A study by Ryan Biggs Clark Davis Engineering and Surveying on December 11, 2015, stated that the expansion of the building would not result in an increase in flows nor would flows be expected to increase from any program changes in the fire company (See **Appendix B** for the engineering site visit report on the capacity of the existing septic system). The Project would not place a demand on a public sewer system.
Water Supply	2	The Project would not affect the water supply for the Town of Rotterdam or the surrounding area. Water is supplied to the existing firehouse facility by the Town of Rotterdam. The domestic water service that extends to the existing facility is used for both domestic needs and to fill tank trucks. A new two-inch domestic water line would be extended from Main Street to the building. This new service would serve only the domestic needs of the facility, allowing the existing service to be used to fill the tank trucks without affecting the domestic water availability. **Source: 14**
Public Safety - Police, Fire and Emergency Medical	1	Public safety services are provided by the Town of Rotterdam Police Department, with 24-hour law enforcement coverage to the Town residents. The functionality of the Rotterdam Fire District #1 firehouse is currently reduced during flooding due to its use as an ad hoc emergency operations center and shelter. The Project would allow the firehouse to maintain its operational capability and function as an emergency shelter. The fire services to the community would be enhanced. Police and other public safety services would not be impacted during normal operations. The other services would be beneficially impacted during times of emergency by the improvements to the firehouse to serve as an emergency operations center. **Source: 28**

Parks, Open Space and Recreation	2	Because the project involve no any changes in population, there would be no impact on demand for parks, open space, or other recreational facilities.
Transportation and Accessibility	2	Because the project involve no changes in population, there would be no impact on use of transportation. Accessibility would be maintained during construction. If construction traffic would affect adjacent roads, the applicant would coordinate with local transportation authorities to identify alternate routes or time-of-day mitigations to reduce potential temporary increases in vehicular traffic during construction.

Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	The project is on mostly developed land in an existing rural area and contains no unique natural features or water resources. **Source: 7, 13, 17, 18, 19, 20, 21, 22, 27**
Vegetation, Wildlife	2	Consultation with the USFWS indicated that the proposed endangered northern long-eared bat may occur in the boundary of or may be affected by the project. On December 2, 2015, the USFWS concurred with the determination that the project may affect, but is not likely to adversely affect the northern long-eared bat. Several migratory birds of concern that could be affected by the proposed Project were identified in the online review process. Trees would be removed between November 1 and March 31 to avoid any potential for impacting bats or migratory birds that could be present. (See **Appendix D**, USFWS and NYNHP Correspondence, and **Appendix A**, Figures.) **Source: 12**
Other Factors	2	No additional factors would be impacted by the project, and no additional impacts would occur.

Additional Studies Performed:

A Phase IA/IB Archeological Investigation was completed in October 2015.

A Report of Asbestos, Lead-Based Paint and PCB Survey Services was completed on November 6, 2015.

A site visit report concerning investigate and evaluate the existing septic system was completed on December 11, 2015.

On January 4, 2016, a geotechnical evaluation was completed by Dente Engineering, P.C., for the planned building addition at the Firehouse in Rotterdam Junction, New York.

The 60 Percent Submission of the DASNY – Rotterdam Junction Volunteer Firehouse Upgrades design was prepared on February 5, 2016.

An Analytical Report on the analysis of the railroad cinders underlying the Project site for volatile organics was submitted on February 5, 2016.

Field Inspection (Date and completed by)**:**

Tectonic Engineering and Surveying Consultants, P.C., did a Phase IB Archeological Investigation on September 18, 2015, with a site walkover, visual surface survey and shovel test pits in the Project area.

LiRo Engineers, Inc. did a field survey for the presence or absence of ACM, LBP, and PCB-containing caulk in October 2015 by

Dente Engineering, P.C., completed a geotechnical evaluation on January 4, 2016

A site evaluation was done and test pits were excavated in conjunction with the Analytical Report on the analysis of the railroad cinders underlying the Project site for volatile organics and was submitted by Ryan Biggs Clark Davis Engineering & Surveying, P.C., on February 5, 2016.

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]**:**

1. New York State. 2013. State of New York Action Plan for Community Development Block Grant Program Disaster Recovery (Action Plan, issued April 25, 2013, amended July 3, 2012) New York State. 2013.

2. New York State. 2014. City of Schenectady and Town of Rotterdam NY Rising Community Reconstruction Plan. March 2014).

3. Federal Aviation Administration. Report to Congress – National Plan of Integrated Airport Systems. Internet Website: http://www.faa.gov/airports/planning_capacity/npias/reports/media/ npias-2015-2019-report-appendix-b-part-4.pdf.

4. Federal Aviation Administration. Report to Congress – National Plan of Integrated Airport Systems. Internet Website:

http://www.faa.gov/airports/planning_capacity/npias/reports/media/npias-2015-2019-report-narrative.pdf.

5. New York State Department of State, Office of Communities and Waterfronts – Coastal Boundary Map. Internet Website: http://appext20.dos.ny.gov/coastal_map_public/map.aspx.

6. US Fish and Wildlife Service. 2015. Coastal Barrier Resources Mapper – Beta. Internet Website: http://www.fws.gov/cbra/Maps/Mapper.html.

7. United States Federal Emergency Management Agency. Current FEMA issued Flood Maps. Internet Website: https://msc.fema.gov/portal/search?AddressQuery=1215%20Main%20Street%2C%20Rotterdam%2C%20ny#searchresultsanchor.

8. United States Environmental Protection Agency. Green Book Nonattainment Areas. Internet Website: http://www.epa.gov/oaqps001/greenbk/ancl.html.

9. New York State Department of Environmental Conservation Bulk Storage Database Search. Internet Website: http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=4.

10. New York State Department of Environmental Conservation Environmental Site Remediation Database Search. Internet Website: http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3.

11. U.S. Environmental Protection Agency. 2015. NEPAssist Internet Mapping Tool. http://nepassisttool.epa.gov/nepassist/nepamap.aspx?wherestr=Rotterdam%2C+NY.

12. US Fish and Wildlife Service. 2015. Letter of response to October 21, 2015, letter. December 2, 2015.

13. United States Department of Agriculture. Natural Resources Conservation Service. Internet Website: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

14. Town of Rotterdam. 2014. Annual Water Quality Report for 2014, Water District #3 and Water District #5. Internet Website: http://rotterdamny.org/blob/files.ashx?ID=16108.

15. New York State Historic Preservation Office (SHPO).2015. Letter confirming no effect. November 30, 2015.

16. Delaware Tribe of Indians. 2015. Letter stating no concerns. October 19, 2015.

17. U.S. Environmental Protection Agency Region 2. 2007. Sole Source Aquifers for NY and NJ. September 2007. Internet Website: http://www.epa.gov/region02/gis/data/downloads/r2sole_source_aquifer.zip.

18. U.S. Fish and Wildlife Service. 2014. National Wetlands Inventory, New York. Internet Website: http://www.fws.gov/wetlands/Data/State-Downloads.html.

19. New York State Department of Environmental Conservation. Regulatory Freshwater Wetlands – New York State – 2002 GIS data. Internet Website: http://cugir.mannlib.cornell.edu/datatheme.jsp?id=111.

20. New York State Department of Environmental Conservation. Tidal Wetlands - NYC and Long Island - 1974. Internet Website: https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1139

21. National Wild and Scenic Rivers System. Internet Website: http://www.rivers.gov/new-york.php.

22. New York State Department of Environmental Conservation. Wild Scenic and Recreational Rivers. Internet Website: http://www.dec.ny.gov/permits/32739.html.

23. USDA Forest Service – Automated Lands Program. 2015. Wild and Scenic Rivers GIS data. November 30, 2015.

24. New York State Department of Environmental Conservation. Potential Environmental Justice Areas in the City of Schenectady, Schenectady County, New York. Internet Website: http://www.dec.ny.gov/docs/permits_ej_operations_pdf/schenectadyej.pdf.

25. Town of Rotterdam Town Board. 2001. Town of Rotterdam, Schenectady County, New York, Comprehensive Plan and Final Generic Environmental Impact Statement. December 5, 2001. Internet Website: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwjKg_qe5O3JAhWKRyYKHfloAlUQFggdMAA&url=http%3A%2F%2Fdocuments.dps.ny.gov%2Fpublic%2FCommon%2FViewDoc.aspx%3FDocRefId%3D%257B2BED6A48-F3C4-418E-B90E-9E7E65BF9F4B%257D&usg=AFQjCNGD3hJAZBcQFzxjmmkEvMYxUAa0Og.

26. New York State Department of Environmental Conservation. 2015. Regulation Chapter IV – Quality Services, Subchapter B, Solid Waste Regulations. Internet Website: http://www.dec.ny.gov/regs/2491.html.

27. New York State Department of Environmental Conservation (NYSDEC). Environmental Assessment Form Mapping Tool. http://www.dec.ny.gov/imsmaps/ERM/viewer.htm.

28. Rotterdam Police Department. 2016. About Us. Internet Website: http://rotterdampd.com/about-us/.

29. U.S. Environmental Protection Agency. 2016. Stationary Internal Combustion Engines. Internet Website: https://www3.epa.gov/ttn/atw/icengines/. Last updated on Wednesday, February 24, 2016.

List of Appendices

Appendix A Figures

Appendix B Site Plans

Appendix C Hazards

Appendix D USFWS and NYNHP Correspondence

Appendix E SHPO Correspondence and Phase IA/IB Archeological Investigation

Appendix F Tribal Correspondence

Appendix G Sole Source Aquifers

Appendix H Topographic Map

List of Permits Obtained or Required:
1. A Local Building Permit from the Town of Rotterdam. Once plans and specifications for the firehouse expansion are completed, they will be submitted to the Town of Rotterdam for issuance of the building permit.
2. A New York State Department of Health variance will be required prior to construction in accordance with Schenectady Aquifer Watershed Rules and Regulations (WRR) contained in 10 NYCRR 142.2 for enlargement of a nonconforming use in the wellhead protection zone.
3. Approval from the Schenectady County Inter-municipal Watershed Rules and Regulations Board.

Public Outreach [24 CFR 50.23 & 58.43]**:**
On April 23, 2016, a combined Notice of Finding of No Significant Impact and Intent to Request Release of Funds would be published in the Schenectady Daily Gazette. Any individual, group, or agency may submit written comments on the Environmental Review Record to:

Thomas J. King, Esq.
Director – Bureau of Environmental Review and Assessment
Assistant General Counsel
Governor's Office of Storm Recovery
99 Washington Avenue Suite 1224
Albany, New York 12260
Office: (518) 473-0015
Mobile: (646) 417-4660 thomas.king@stormrecovery.ny.gov

Cumulative Impact Analysis [24 CFR 58.32]**:**
The Project is not expected to trigger cumulative impacts, including the degradation of important natural resources, socioeconomic resources, human health, recreation, quality of life issues, and cultural and historic resources. The Project is not of a scale large enough to contribute significantly to cumulative impacts. It would create positive impacts, as it would increase the efficiency of the response effort and the safety of residents and volunteers and would allow the fire district to serve the community more effectively.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

Proposed Project. As fully described in this Environmental Assessment, the Rotterdam Fire District #1 Firehouse Upgrades Project would expand the firehouse to meet the fire response and emergency shelter needs in the Town of Rotterdam, Schenectady County, New York.

Alternative Sites Alternative. The only alternative is to completely relocate the firehouse to an alternative site because the existing facility is undersized to meet need. The existing location was specifically identified by the NY Rising Planning Committee as an emergency shelter located outside of the floodplain for Rotterdam. It is listed in the NYRCR plan as an important project for enhancing flood disaster mitigation, preparedness, and response and recovery efforts in both a local and regional capacity. The existing location already has community investment, and emergency medical services are already established at the existing location. Relocation to an alternative site would be limited by the presence of floodplains in the area and the wellhead protection zone. Developing other properties in Rotterdam that could be suitable would require purchase, and complete replacement of the firehouse would be more expensive than an addition at the existing facility.

No Action Alternative [24 CFR 58.40(e)]:
Not undertaking the Project would not be consistent with the goals and objectives of the City of Schenectady and Town of Rotterdam NYRCR plan and other local and state plans. The town would not develop a key component of the resilient infrastructure it needs to function during emergency situations. Without the project, the risk of impairment or loss of critical fire and rescue facilities would continue to place the lives of community members affected by flooding in jeopardy. Under the No Action alternative, the town's goals to strengthen capacity of emergency and support services to respond during a major storm event and manage resources throughout recovery would be limited. The Rotterdam Fire District #1 firehouse served as the center of emergency operations for Rotterdam residents during Hurricane Irene and Tropical Storm Lee. The firehouse became a collection and distribution point for supplies, including clothing, pots/pans, meals, and cleaning products. The capacity of the firehouse was compromised during the storms due to the lack of space and supplies. Enhancement of the Rotterdam Fire District #1 firehouse facilities and grounds to strengthen disaster response would be delayed.

Summary of Findings and Conclusions:

The Project would be an appropriate use of the Project site. The position of the town is that the project would enhance the resilience of the Town of Rotterdam by ensuring that critical fire and rescue facilities would be available during emergencies, including floods, and for fire response. Impairment or loss of critical fire and rescue facilities would place the lives of community members affected by a major storm event in jeopardy The Project would not significantly alter the character or resources of the area. It would result in potential benefits by allowing the firehouse to maintain its operational capability and function as an emergency shelter. The fire services to the community would be enhanced. Other public services, including public safety, police, and emergency medical services, would be beneficially impacted during times of emergency by the improvements to the firehouse to serve as an emergency operations center. The proposed Project would not result in a significant impact on the quality of the human environment or result in other direct, indirect, or cumulative impacts. The Project would comply with all relevant regulations listed in 24 CFR subparts 58.5 and 58.6.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	
	Mitigation Measure
Clean Air Act	All Project activities would comply with applicable federal, state, and local laws and regulations regarding construction emissions, including but not limited to NYCRR, NYSDEC Air Quality Management Plan, and the New York SIP. All necessary measures would be used to minimize fugitive dust emissions during activities, such as demolition of existing structures. The preferred method for dust suppression is water sprinkling.
Clean Air Act	Compliance with RICE MACT regulations and compression ignition or spark ignition generator regulations under 40 CFR 60 will be demonstrated by purchasing an engine certified to the limits in these regulations.
Contamination and Toxic Substances	All Project-related solid waste materials generated during construction would be managed and transported in accordance with the NYS solid and hazardous waste rules.
Contamination and Toxic Substances	Asbestos and lead abatement activities or special work practices would be done prior to or during the renovation or alteration of the structure to protect workers and the environment from these materials
Contamination and Toxic Substances	According to the EPA, the Project site is in Radon Zone 2. After construction completion, surveys would be conducted and appropriate mitigation would be applied to ensure that whole body radon exposure of is below 1.25 rems per calendar quarter. All testing and mitigation would be done prior to occupancy.
Endangered Species	Trees would be removed between November 1 and March 31 to avoid the potential for impacting any bats or migratory birds that could be present.
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	Since the native soils underlying the fill consist of silt that may be wet and sensitive to disturbance during

	wet periods of the year, removal and replacement of the fills should be planned, if possible, during a seasonal dry period.

Determination:

☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]
The project may significantly affect the quality of the human environment.

Preparer Signature: Genevieve Kaiser Date: April 23, 2016

Name/Title/Organization: Genevieve Kaiser, Senior Environmental Planner, Tetra Tech, Inc.

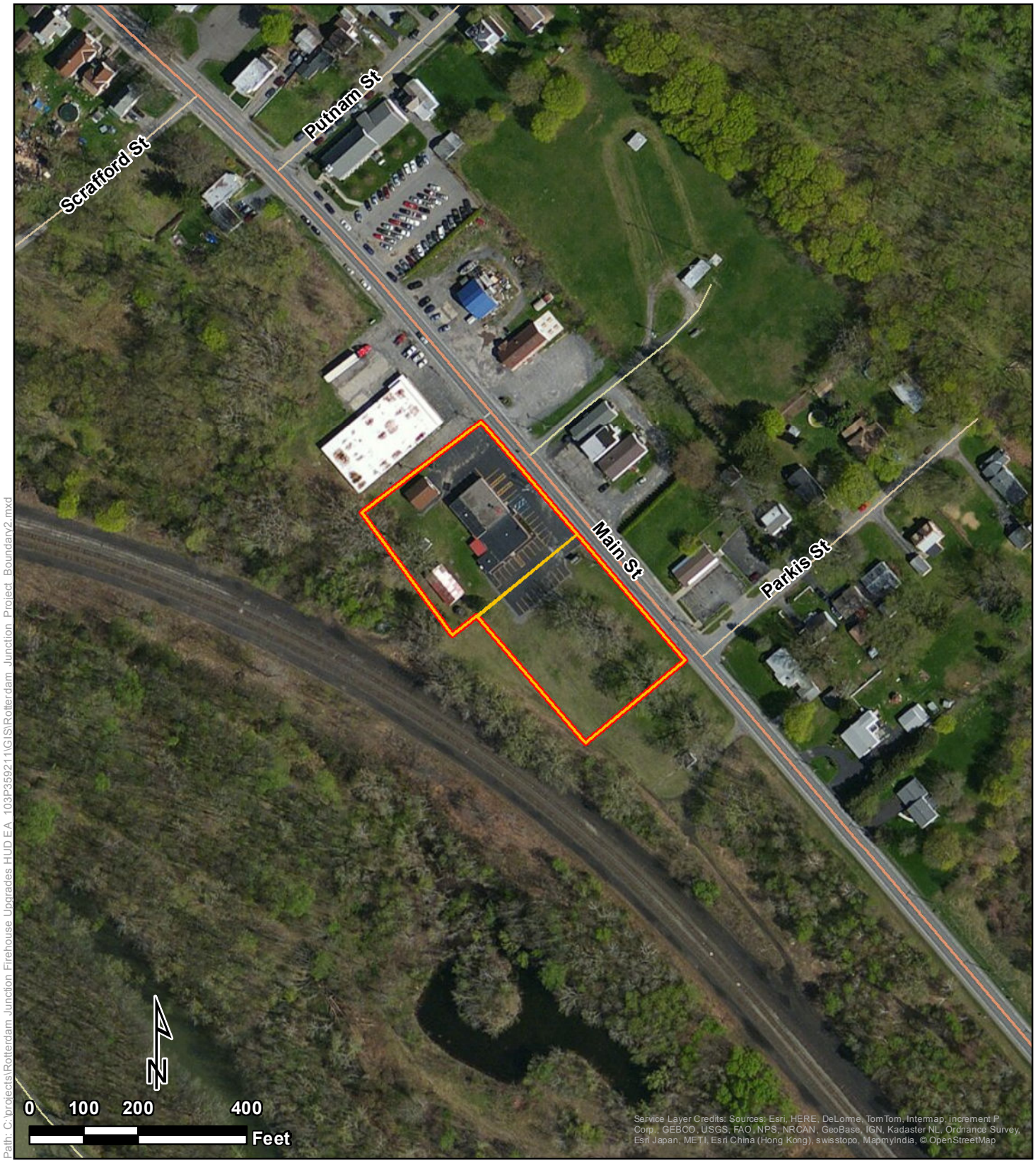
Certifying Officer Signature: Thomas J. King Date: April 23, 2016

Name/Title: Thomas J. King, Assistant General Counsel and Certifying Officer, Governor's Office of Storm Recovery

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

APPENDIX A

FIGURES



Path: C:\projects\Rotterdam_Junction_Firehouse_Upgrades_HUD_EA_103P359211\GIS\Rotterdam_Junction_Project_Boundary2.mxd

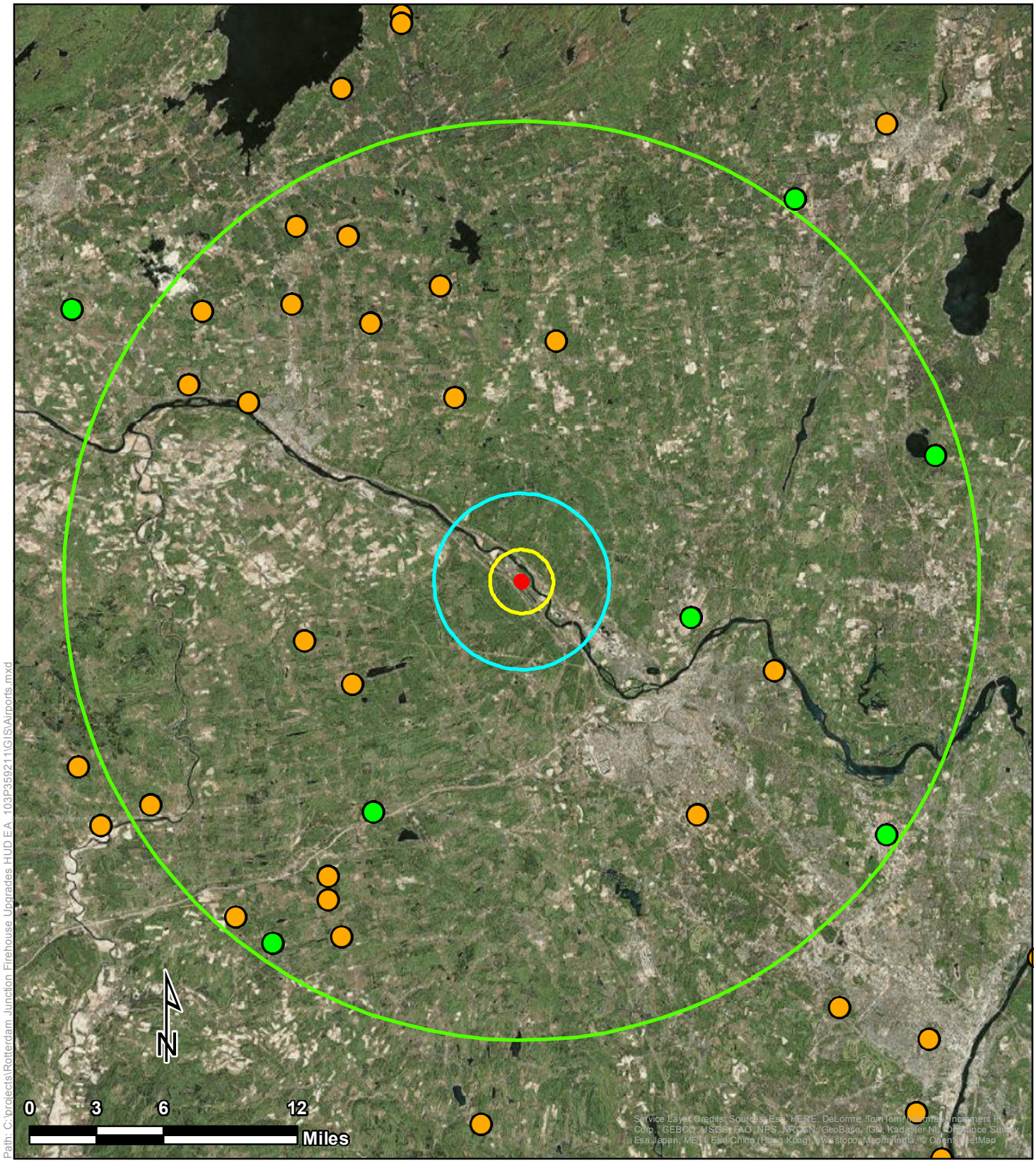
Project Area

Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Legend

- Parcels
- Project Boundary

Tetra Tech, Inc



Path: C:\projects\Rotterdam Junction Firehouse Upgrades HUD EA 103P359211\GIS\Airports.mxd

Legend

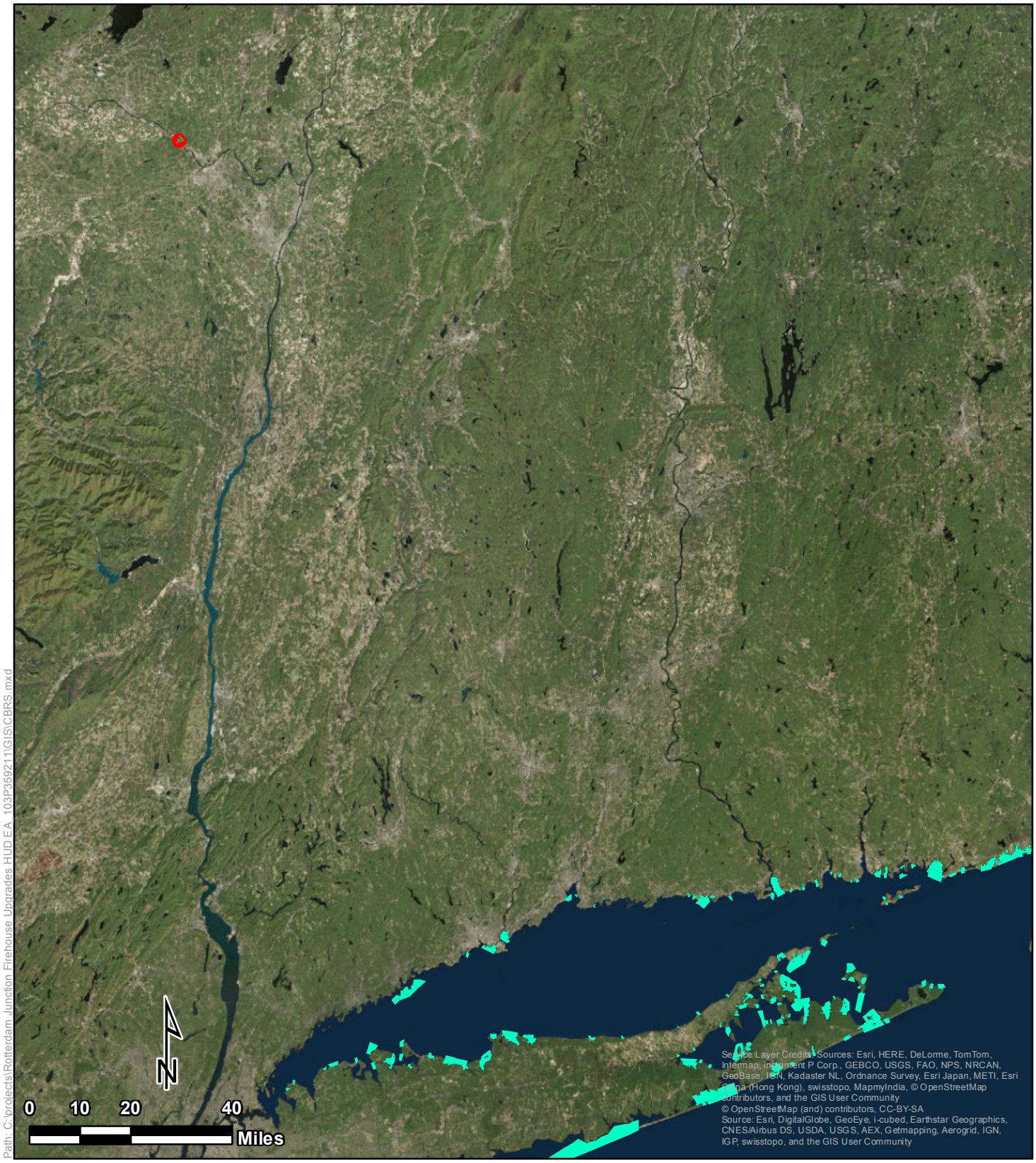
Airports

- Public Use
- Private Use
- Project Boundary
- 2,500-Foot Project Site Buffer
- 15,000-Foot Project Site Buffer
- 15-Mile Project Site Buffer

Airports

Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Tetra Tech, Inc



Path: C:\projects\Rotterdam Junction Firehouse Upgrades HUD EA 103P359211\GIS\CBRS.mxd

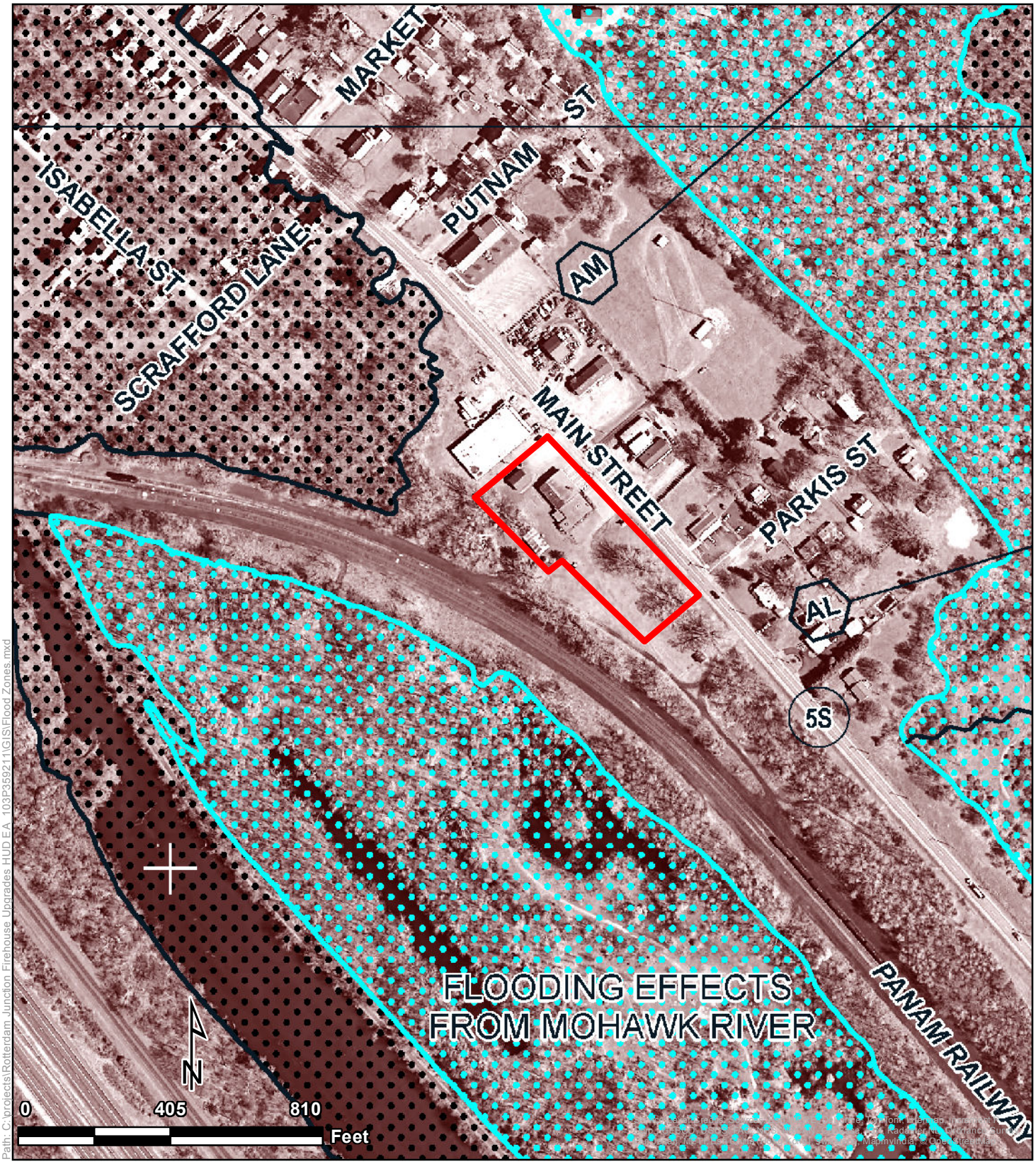
Coastal Barrier Resources

Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Legend

- CBRS Polygons
- Project Boundary

Tetra Tech, Inc



Path: C:\projects\Rotterdam Junction Firehouse Upgrades HUD EA 103P359211\GIS\Flood Zones.mxd

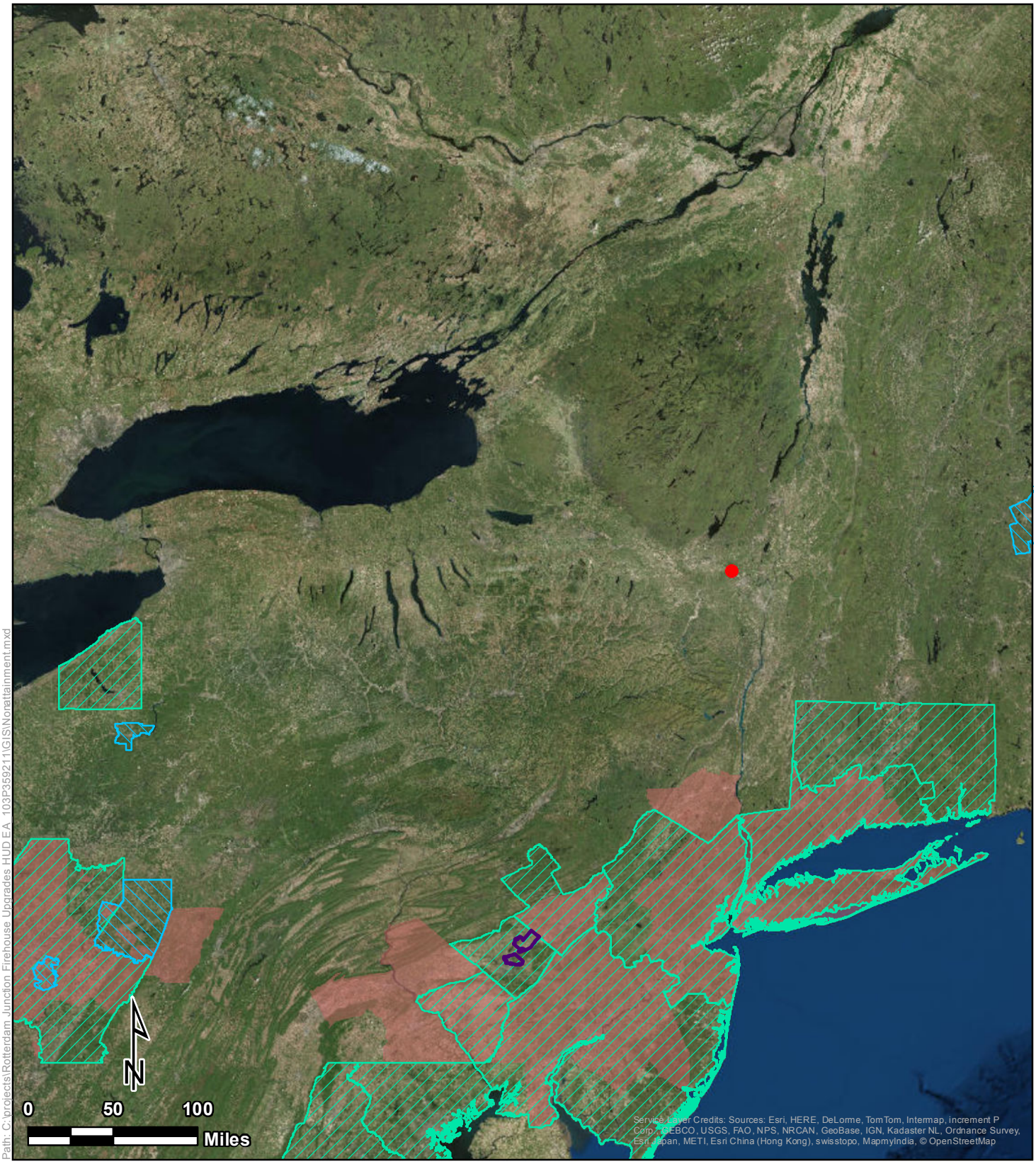
Legend

- Project Boundary
- Zone AE- within the 1% annual chance flood
- Floodway Area within Zone AE- within the 1% annual chance flood that must be kept free of encroachment
- Zone X-within the 0.2% annual chance of flood or 1% chance with depths less than 1 foot or drainage areas of less than 1 square mile or areas protected y levees within the 1% chance flood zone

Tetra Tech, Inc

Flood Zones

Rotterdam Fire District #1
FirehouseUpgrades
1215 Main Street
Town of Rotterdam,
Schenectady County, New York



Nonattainment Areas

Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Legend

- Pb_NAA_2008
- so2_2010std_naa
- Ozone_8hr_2008std_naa
- PM25_2006Std_NAA
- Project Boundary

Tetra Tech, Inc

DEPARTMENT OF STATE, OFFICE OF
PLANNING & DEVELOPMENT
ANDREW M. CUOMO, GOVERNOR CESAR A. PERALES, SECRETARY OF STATE

Welcome to the NYS Coastal Boundary Map

Help

Search

Address:

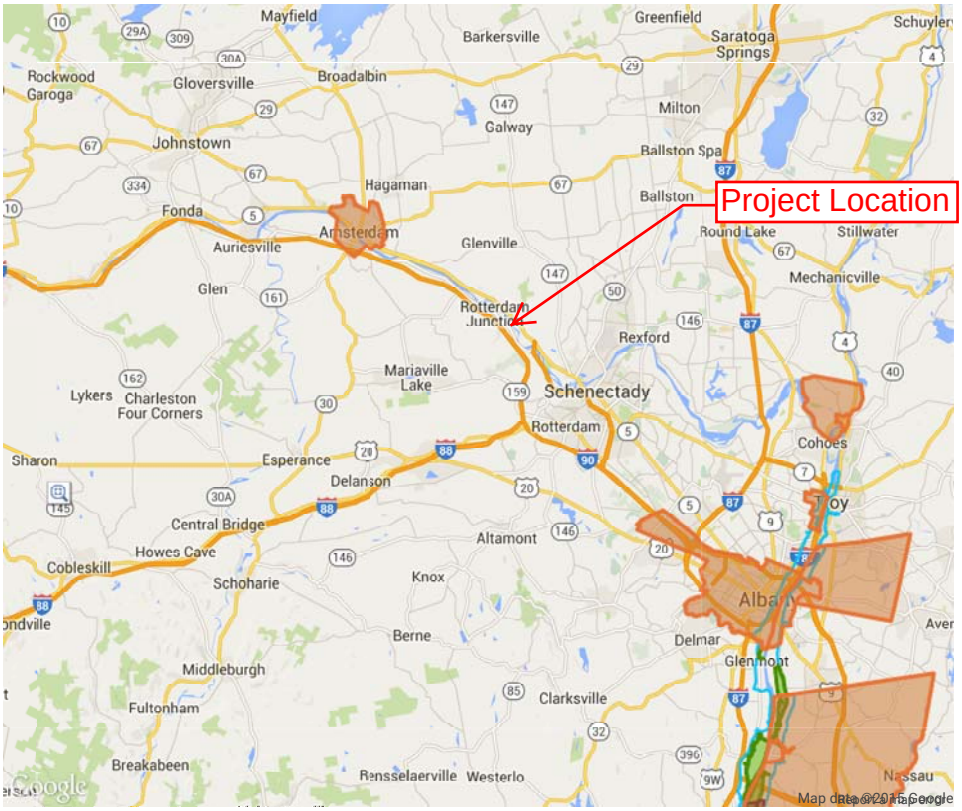
Enter Address Here

Find Address

Please note that the address marker is automatically placed along the street while certain activities may take place along the waterward property boundary. Please make sure to click and drag the marker to the exact location of the proposed activity for an accurate assessment of whether or not the activity would be located within any DOS Special Management Areas.

Layers

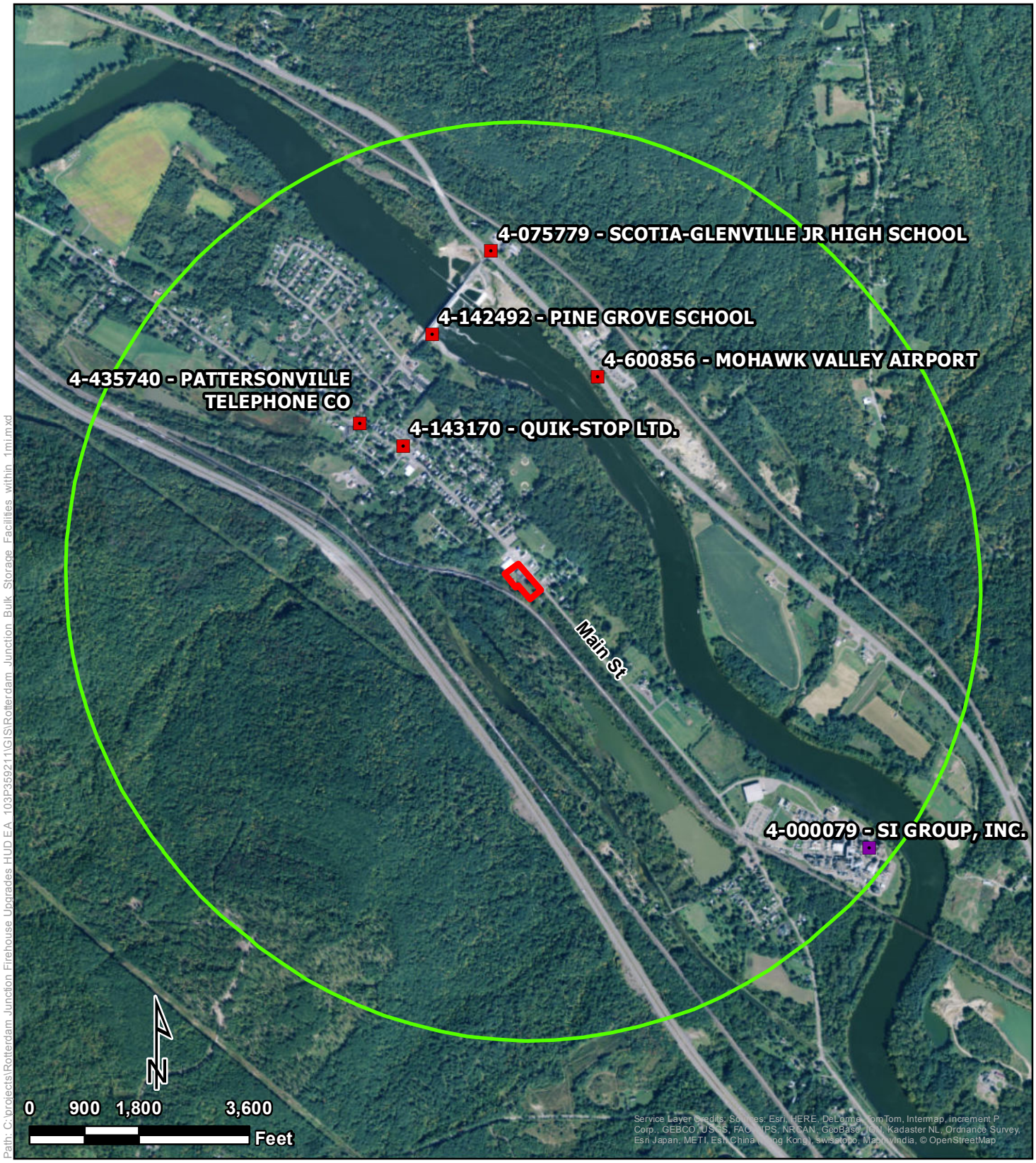
- [x] Landward Coastal Boundary
- [x] Scenic Areas
- [ ] Local Waterfront Revitalization Areas
- [x] Local Waterfront Revitalization Program Communities
- [x] Significant Coastal Fish and Wildlife Habitats
- [x] DOS Identified Canals
- [ ] Long Island Sound CMP (excludes LWRP communities)
- [ ] Federally Owned Lands
- [ ] Native American Lands



Latitude: 42.803 Longitude: -75.399

The New York State Department of State makes every effort to post accurate and reliable information on this website. The Department of State does not guarantee or warrant that the information on this web site is complete, accurate or current. The information on this website is intended solely for the purpose of electronically providing the public with general coastal consistency-related information and convenient access to data resources. The Department of State neither assumes responsibility for the use or application of any material posted on this website nor responsibility for any error, omission or other discrepancy between the electronic and printed versions of documents.

DOS Home | A to Z Index | Applications | Accessibility | Privacy Policy | Disclaimer | Contact Us



Path: C:\projects\Rotterdam_Junction_Firehouse_Upgrades_HUD_EA_103P359211\GIS\Rotterdam_Junction_Bulk_Storage_Facilities_within_1mi.mxd

Bulk Storage Facilities

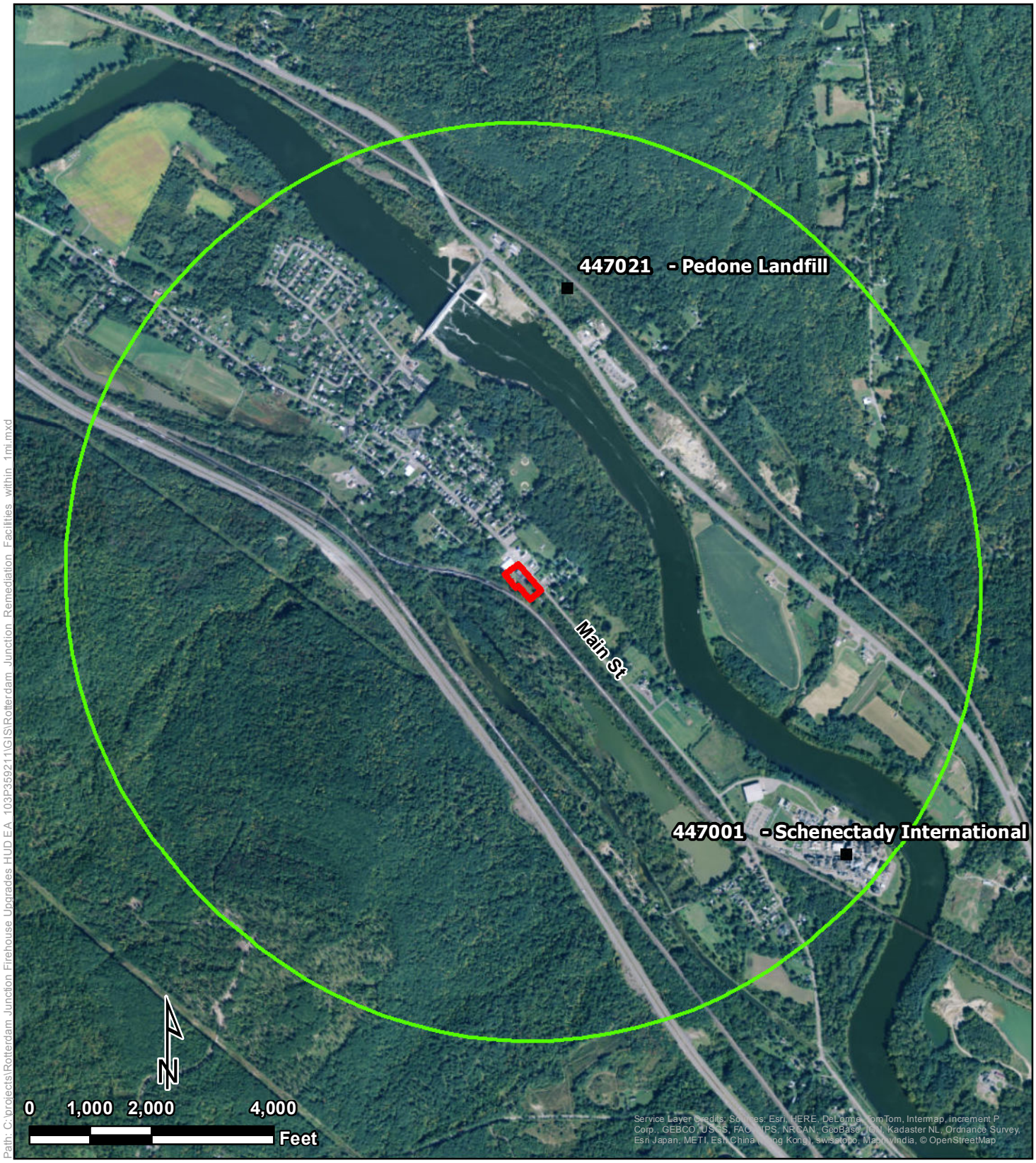
Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Legend

Bulk Storage Facilities

- Chemical Bulk Storage
- Petroleum Bulk Storage
- One Mile Project Site Buffer
- Project Boundary

Tetra Tech, Inc



Path: C:\projects\Rotterdam_Junction_Firehouse_Upgrades_HUD_EA_103P359211\GIS\Rotterdam_Junction_Remediation_Facilities_within_1mi.mxd

Remediation Facilities

Legend

- State Superfund Program Hazardous Waste Sites
- One Mile Project Site Buffer
- Project Boundary

Rotterdam Fire District #1
Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Tetra Tech, Inc

Path: C:\projects\Rotterdam Junction Firehouse Upgrades HUD EA 103P359211\GIS\Selected Protected Species.mxd

Legend

- Seabeach Amaranth
- Roseate Tern
- Roseate Tern 1000Mbuffer
- Piping Plover
- Piping Plover Buffer
- Project Boundary

Selected Protected Species

Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Tetra Tech, Inc

Path: C:\projects\Rotterdam Junction Firehouse Upgrades HUD EA_103P359211\GIS\Protected Soils.mxd

Protected Soils

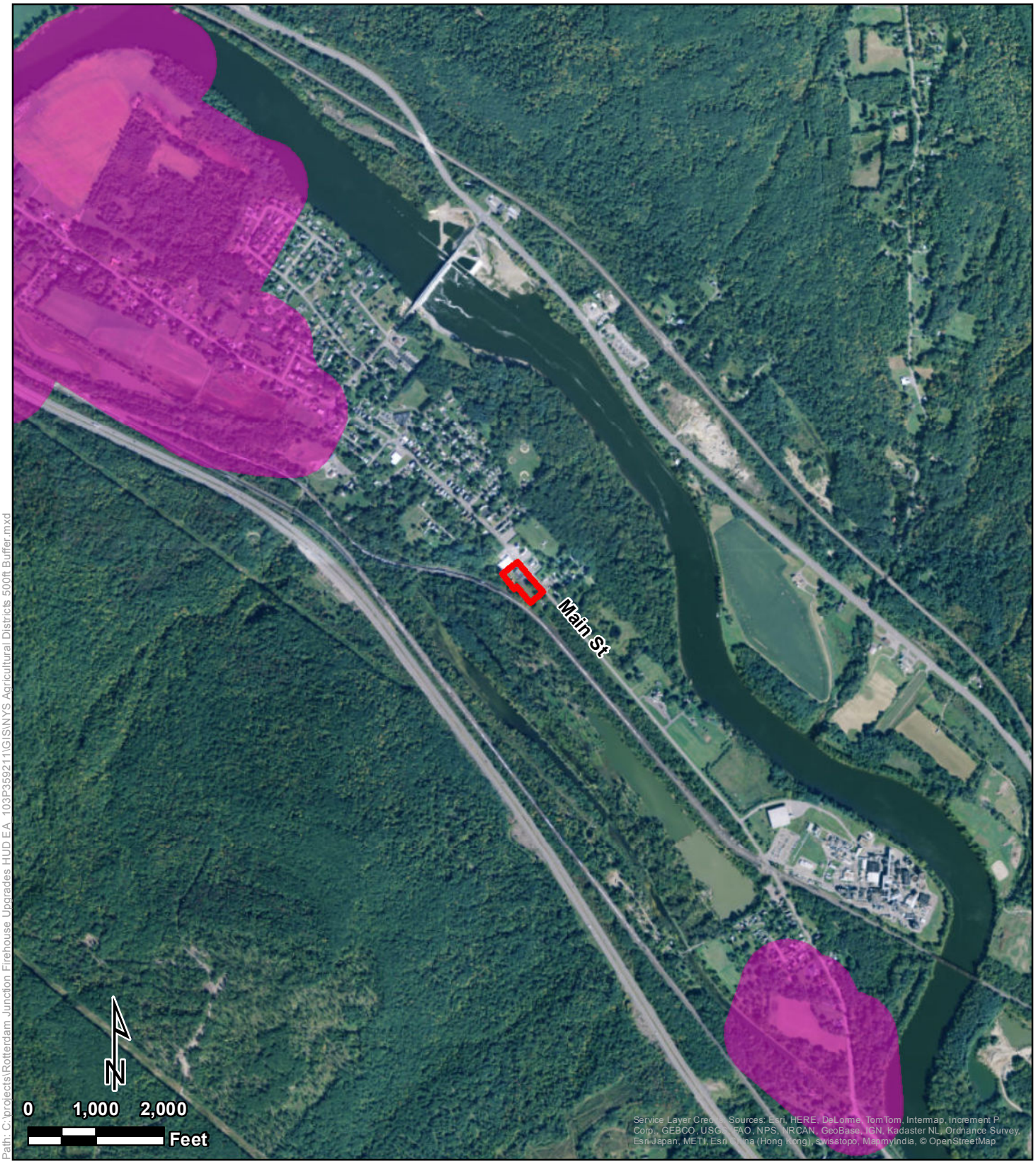
Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Legend

Prime Farmland Soils

- All areas are prime farmland
- Farmland of statewide importance
- Prime farmland if drained
- Project Boundary

Tetra Tech, Inc



Path: C:\projects\Rotterdam Junction Firehouse Upgrades HUD EA_103P359211\GIS\NYS Agricultural Districts 500ft Buffer.mxd

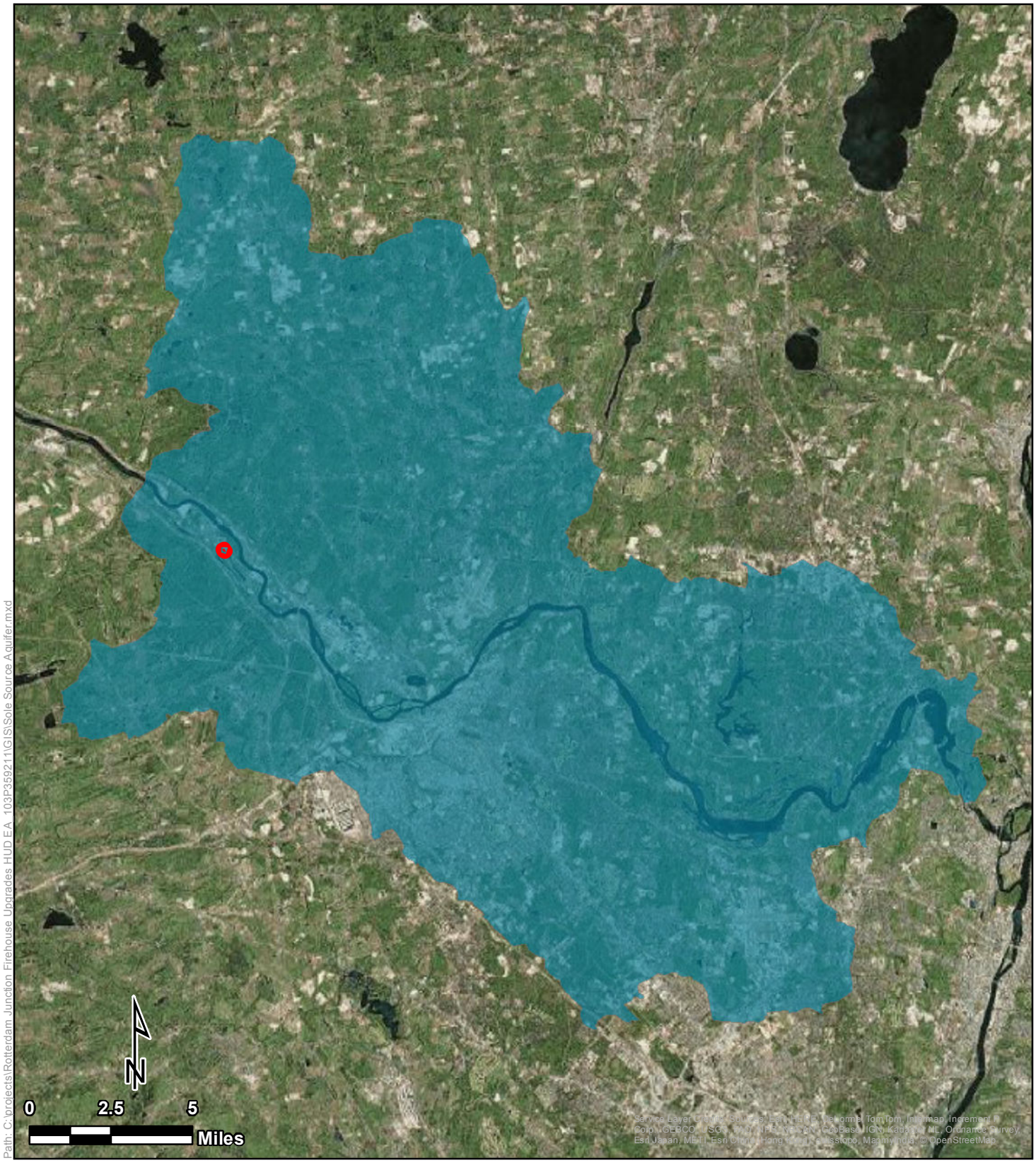
Agricultural Districts

Legend

- NYS Agricultural Districts 500ft Buffer
- Project Boundary

Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Tetra Tech, Inc



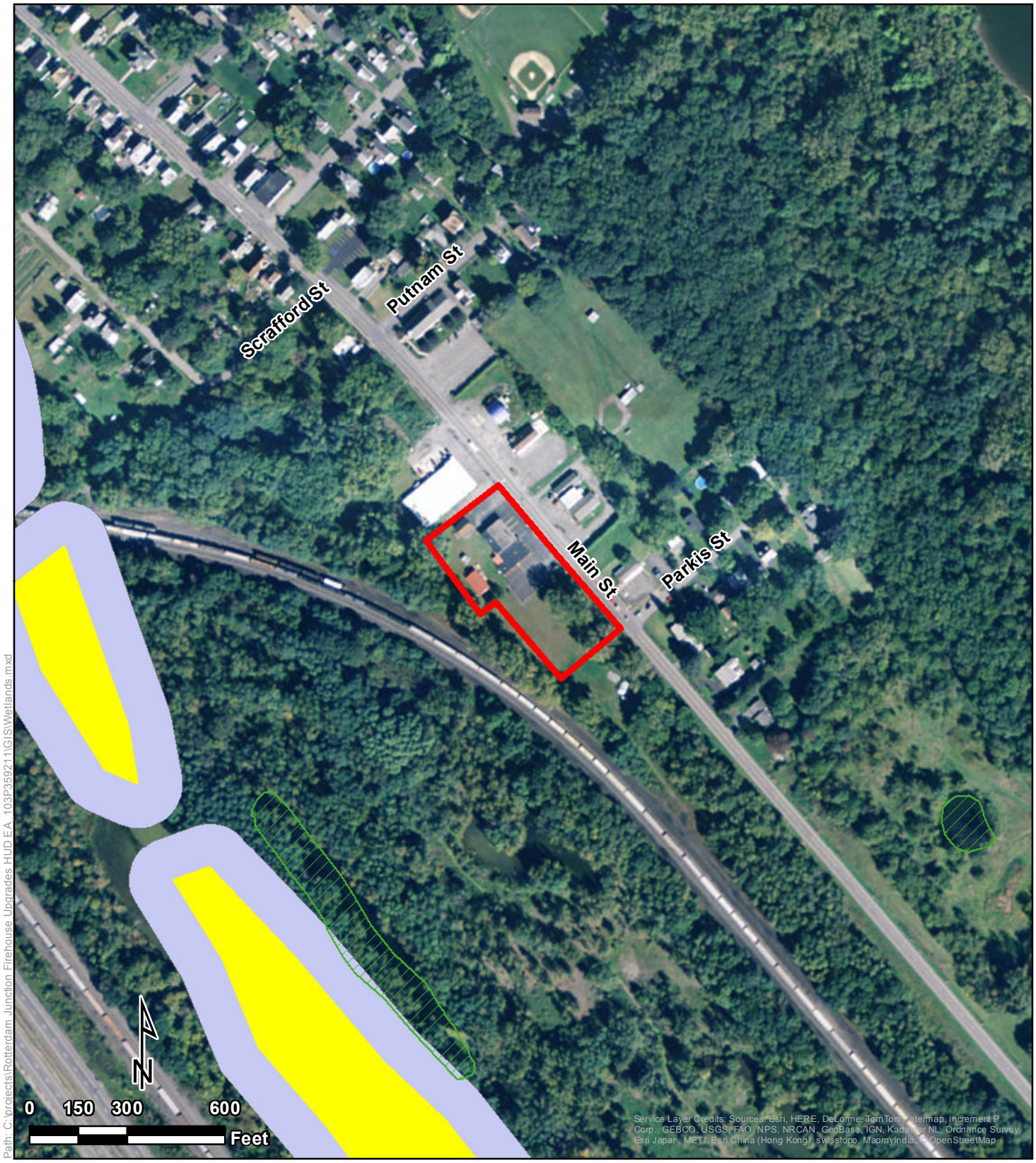
Sole Source Aquifers

Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Legend

- Schenectady-Niskayuna SSA
- Project Boundary

Tetra Tech, Inc



Path: C:\projects\Rotterdam Junction Firehouse Upgrades HUD EA 103P359211\GIS\Wetlands.mxd

Freshwater Wetlands

Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

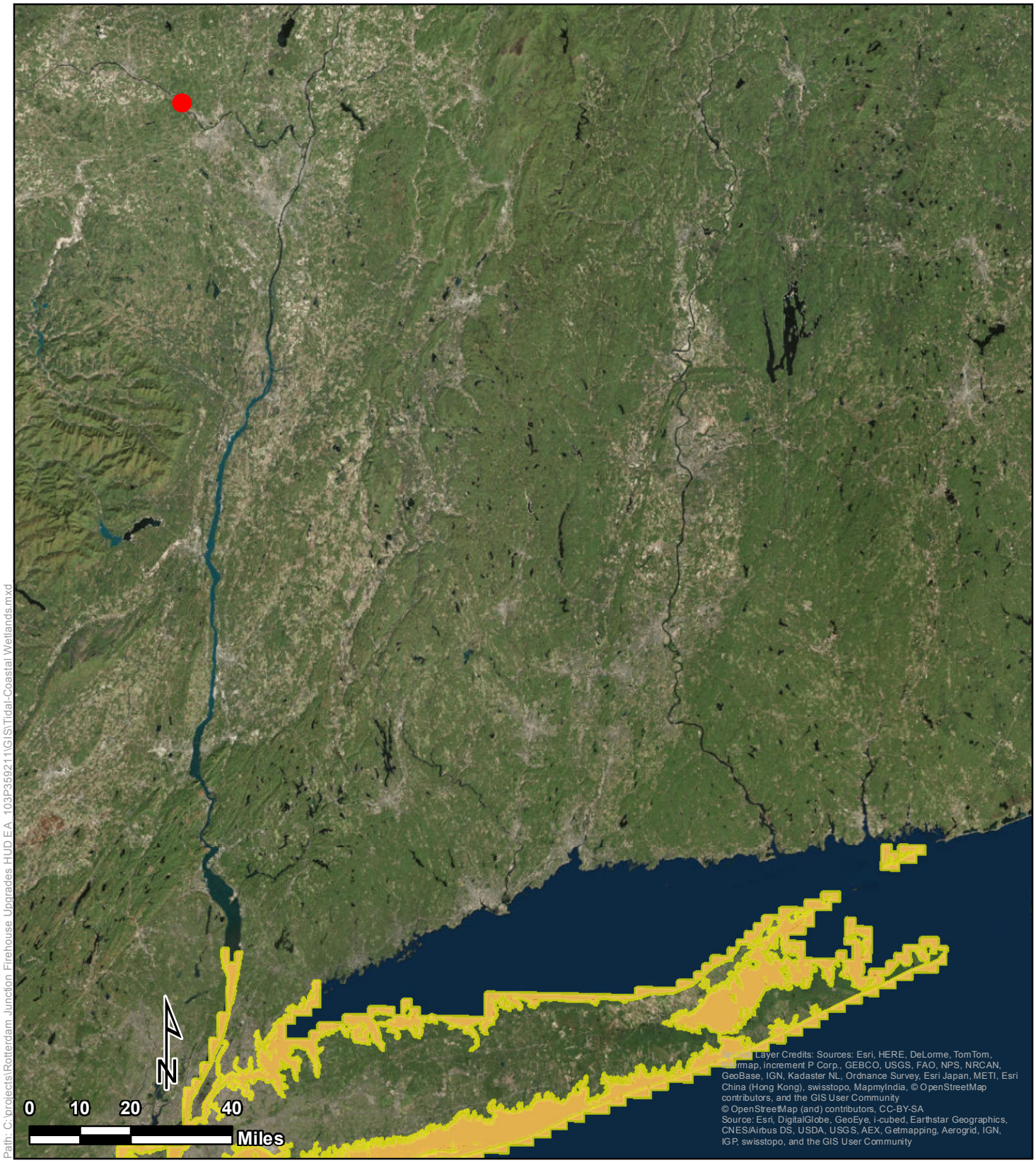
Legend

- NYS Freshwater Wetlands
- NYS Freshwater Wetlands 100-Foot Buffer

NWI Wetlands

- Freshwater Pond
- Project Boundary

Tetra Tech, Inc



Path: C:\projects\Rotterdam Junction Firehouse Upgrades HUD EA 103P359211\GIS\Tidal-Coastal Wetlands.mxd

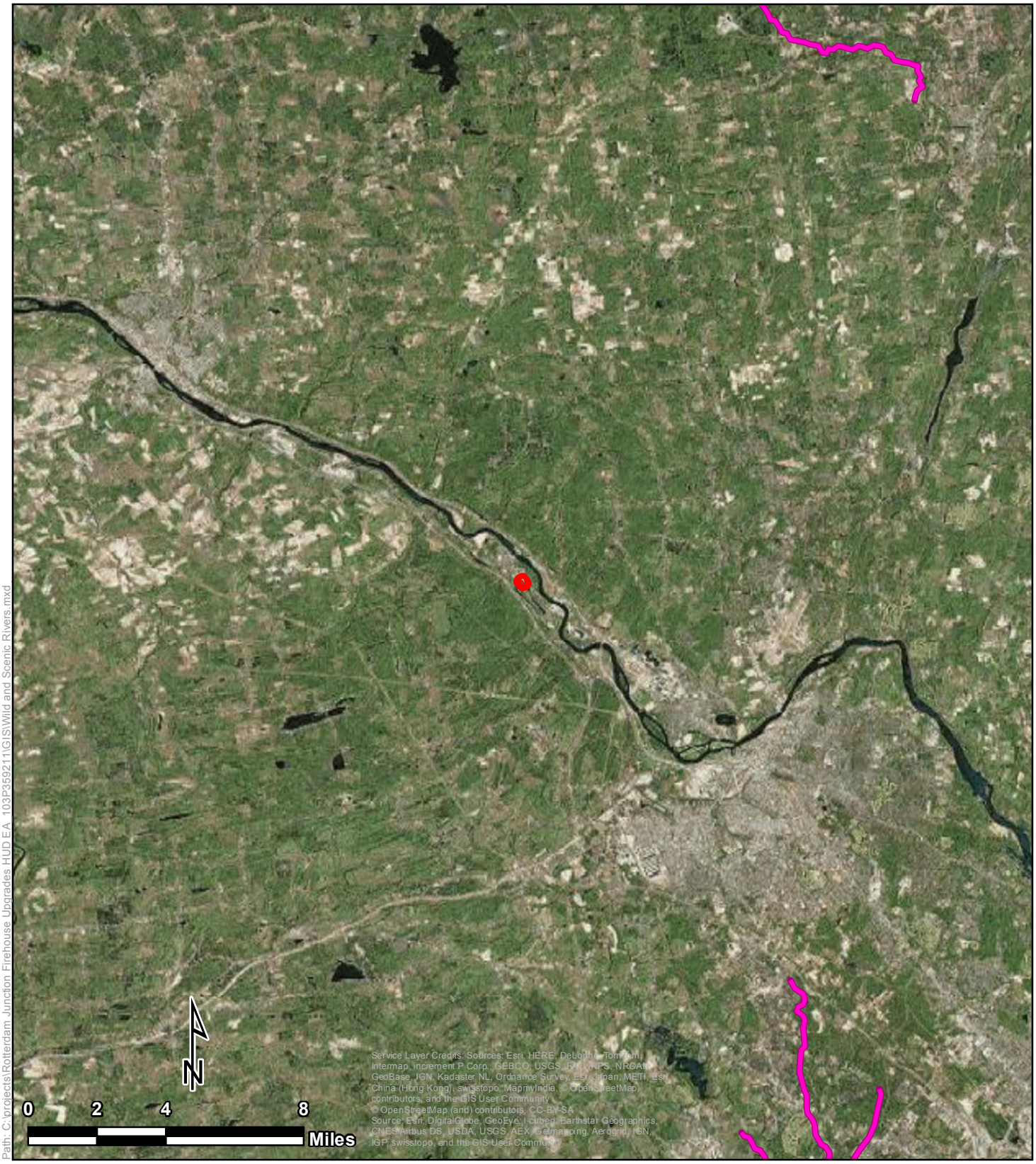
Tidal-Coastal Wetlands

Legend

- Project Boundary
- Tidal - Coastal Wetlands
- Tidal - Coastal Wetlands 300ft Buffer

Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Tetra Tech, Inc



Path: C:\projects\Rotterdam Junction Firehouse Upgrades HUD EA_103P359211\GIS\Wild and Scenic Rivers.mxd

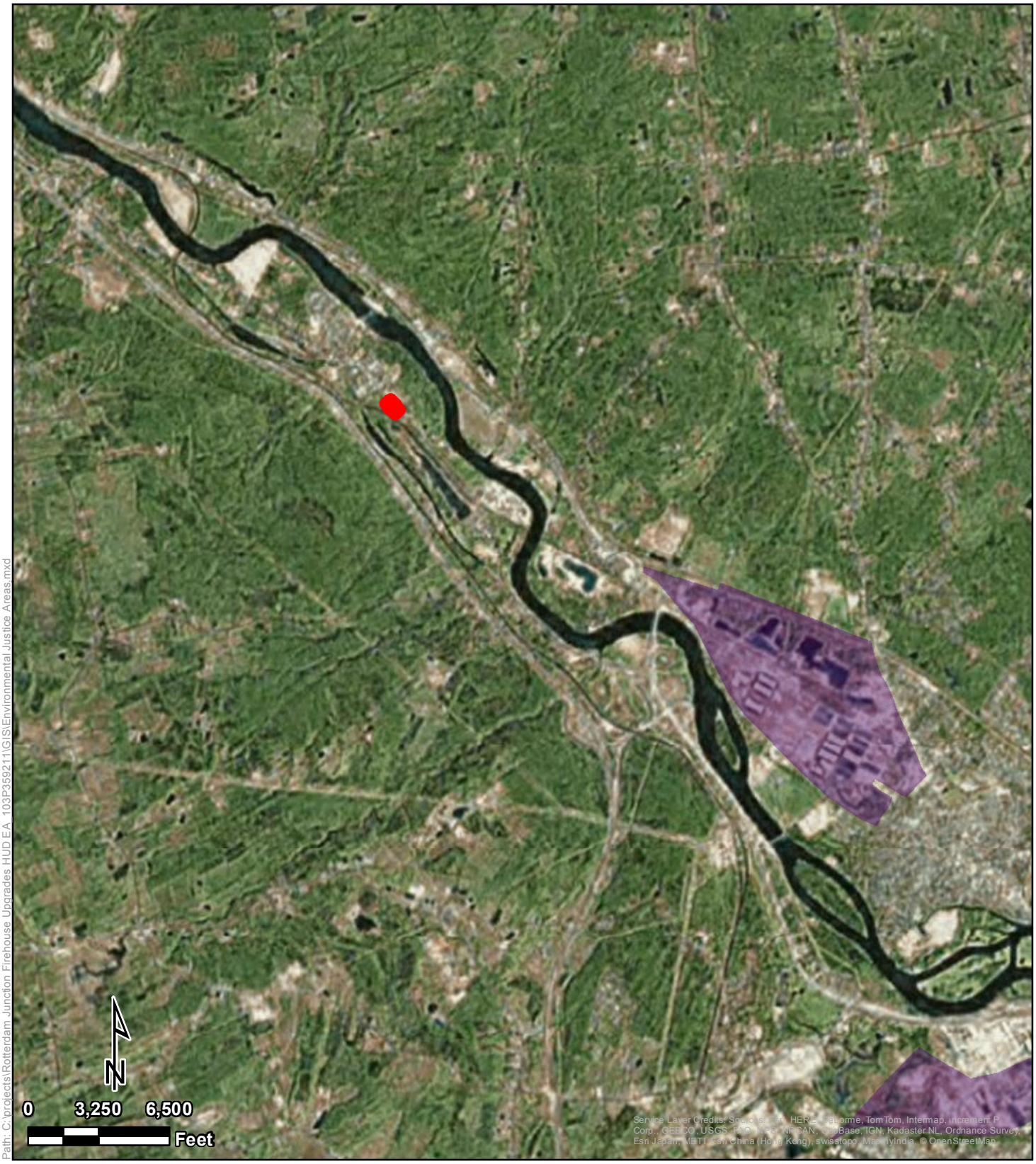
Wild and Scenic Rivers

Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Legend

- Wild and Scenic Rivers
- Project Boundary

Tetra Tech, Inc



Path: C:\projects\Rotterdam Junction Firehouse Upgrades HUD EA 103P359211\GIS\Environmental Justice Areas.mxd

Environmental Justice Areas

Legend

- Environmental Justice Areas
- Project Boundary

Rotterdam Fire District #1 Firehouse Upgrades
1215 Main Street
Town of Rotterdam, Schenectady County, New York

Tetra Tech, Inc

APPENDIX B

SITE PLANS

Rotterdam Junction Volunteer Firehouse Upgrades

1215 Main Street
Rotterdam, NY 12150

COVER

PHASE 60% SUBMISSION

NEW YORK RISING
COMMUNITY RECONSTRUCTION PROGRAM

GOSR
GOVERNOR'S OFFICE OF STORM RECOVERY

LIST OF DRAWINGS

G000	COVER SHEET
G001	GENERAL NOTES AND ABBREVIATIONS

CIVIL

C001	NOTES & LEGEND
C101	EXISTING CONDITIONS
C102	REMOVALS PLAN
C103	SITE PLAN
C104	GRADING PLAN
C201	SITE DETAILS

STRUCTURAL

S001	GENERAL NOTES
S002	GENERAL NOTES CONTINUED
S003	SCHEDULE OF SPECIAL INSPECTIONS
S100	FOUNDATION PLAN
S101	ROOF FRAMING PLAN
S300	FOUNDATION SECTIONS AND DETAILS
S301	FOUNDATION SECTIONS AND DETAILS
S302	PIER AND BASE PLATE DETAILS
S400	MASONRY SECTIONS AND DETAILS
S401	MASONRY SECTIONS AND DETAILS
S500	FRAMING SECTIONS AND DETAILS
S501	BRACED FRAME ELEVATIONS AND DETAILS

ARCHITECTURAL

AD101	REMOVALS FLOOR PLAN
AD201	REMOVALS ELEVATION
LS101	LIFE SAFETY PLAN
A101	FLOOR PLAN
A102	REFLECTED CEILING PLAN
A103	ROOF PLAN
A201	EXTERIOR ELEVATIONS
A301	BUILDING SECTIONS
A401	WALL SECTIONS
A402	WALL SECTIONS
A403	ENLARGED PLAN - RESTROOMS
A501	PLAN DETAILS
A502	ROOF AND FOUNDATION DETAILS
A503	HEAD, JAMB AND SILL DETAILS
A504	HEAD, JAMB AND SILL DETAILS
A601	SCHEDULES + PARTITION TYPES
A901	3D VIEWS

PLUMBING

P-001	PLUMBING GENERAL NOTES SYMBOL LEGEND SCHEDULES
P-201	PLUMBING MODIFICATIONS

MECHANICAL

M-001	MECHANICAL GENERAL NOTES SCHEDULES
M-201	MECHANICAL REMOVALS AND NEW WORK

ELECTRICAL

E-001	ELECTRICAL GENERAL NOTES SYMBOL LEGEND SCHEDULES
E-101	ELECTRICAL REMOVALS
E-201	ELECTRICAL NEW WORK
E-301	ELECTRICAL GENERAL NOTES SYMBOL LEGEND SCHEDULES

Seal & Signature

ARCHITECT:

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 1211C
phone 518 785 5851 | fax 518 785 6516

Seal & Signature

CIVIL:

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

Seal & Signature

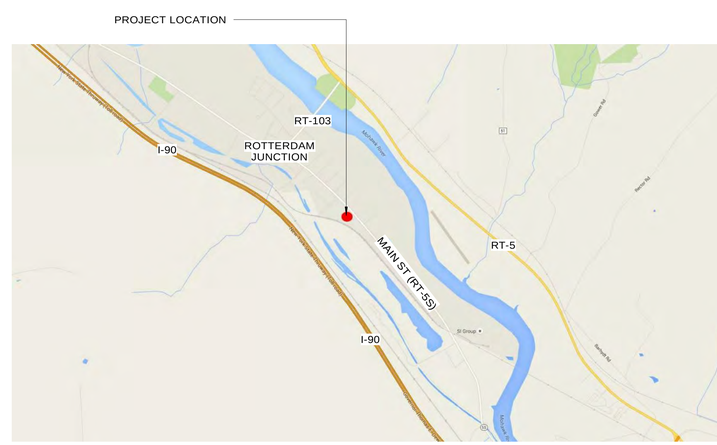
STRUCTURAL:

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

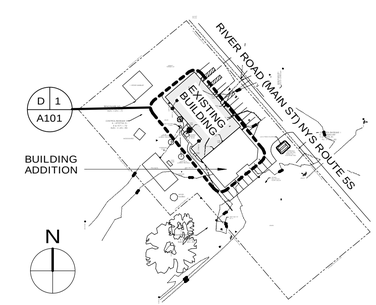
Seal & Signature

MEP + FIRE SAFETY:

HA2F
CONSULTANTS IN ENGINEERING
1 VAN PATTEN DRIVE
CLIFTON PARK, NY 12065
(518) 877-8566



LOCATION MAP



D 1 Location Plan
1" = 100'-0"

DASNY
DORMITORY AUTHORITY STATE OF NEW YORK
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor, New York, New York 10119-0098
539 Franklin Street, Buffalo, New York 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANY WAY. ALTERATIONS MUST HAVE THE SEAL APPLIED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE.
COPYRIGHT © 2013

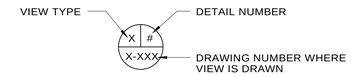
COVER
Rotterdam Junction Volunteer Firehouse Upgrades
21 JAN2016
PHASE 60% SUBMISSION
DASNY Project No: 328250

GENERAL NOTES TO ALL DRAWINGS:

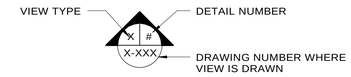
1. APPLICABLE TO ALL DRAWINGS.
2. ALL DETAILS ARE TYPICAL. THAT IS, DETAILS APPLY TO ALL SIMILAR CONSTRUCTION NOT OTHERWISE DETAILED OR NOTED.
3. WHERE DETAILS ARE NOT NOTED, REFER TO SYMBOLS.
4. ALL MATERIALS AND SHAPES INDICATED IN SECTIONS ARE CONTINUOUS UNLESS SPECIFICALLY NOTED OTHERWISE.
5. DETAILS AND/OR SCHEDULES MAY SHOW SELECTED REQUIRED FASTENER TYPES, SIZES, AND LOCATIONS. WHERE FASTENERS ARE SO DETAILED OR SCHEDULED, SUCH FASTENING SHALL NOT BE CONSIDERED A COMPLETE REPRESENTATION OF ALL FASTENING REQUIRED.
6. SECURE ALL PROPOSED CONSTRUCTION WITH FASTENERS OF ADEQUATE SIZE AND AT PROPER SPACING TO ENSURE THAT ALL MATERIALS WILL REMAIN SECURELY FIXED IN POSITION AS SHOWN. FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS FOR SPECIFIC FASTENERS FOR WINDOWS, DOORS, HARDWARE AND ACCESSORIES.
7. ALL PRODUCTS AND CONSTRUCTION INDICATED ON THE DRAWINGS AND IN THE TECHNICAL SPECIFICATIONS SHALL BE CONSIDERED TO BE PROPOSED UNLESS SPECIFICALLY NOTED AS "EXISTING" OR AS "REUSED".
8. WHERE ACCESSORY MATERIALS ARE SPECIFIED AND NO EXTENT OF USE IS INDICATED, PROVIDE ACCESSORY MATERIAL WHEREVER USE IS POSSIBLE AND PER MANUFACTURER'S WRITTEN INSTRUCTION.
9. FOLLOW MANUFACTURER'S SPECIFICATIONS AND DIRECTIONS FOR INSTALLATION OF ALL PRODUCTS UON.
10. VERIFY ALL DIMENSIONS AND LOCATIONS OF STRUCTURES SUPPORTING EXISTING FIXTURES, APPLIANCES AND DOORS. CONSULT THE ARCHITECT WHERE DIMENSIONS MUST BE CHANGED TO ACCOMMODATE APPROVED FIXTURES AND APPLIANCES.
11. ALL INFORMATION SHOWN FOR EXISTING CONDITIONS WAS OBTAINED FROM ORIGINAL DRAWINGS AND FIELD INVESTIGATION LIMITED TO PROJECT AREA BY THE ARCHITECT. ALL SUCH INFORMATION IS SUBJECT TO FIELD VERIFICATION BY THE CONTRACTOR. IF EXISTING CONDITIONS FOUND ARE NOT AS PER CONTRACT DOCUMENTS AND CHANGES INVOLVING MODIFICATIONS TO THE CONTRACT ARE ANTICIPATED, DO NOT PROCEED WITH THESE CHANGES UNTIL WRITTEN APPROVAL IS RECEIVED FROM THE ARCHITECT AND OWNER'S REPRESENTATIVE AS REQUIRED BY THE CONDITIONS OF THE CONTRACT.
12. REMOVE EXISTING CONSTRUCTION TO THE EXTENT REQUIRED TO PROVIDE PROPOSED CONSTRUCTION AS DETAILED UNLESS OTHERWISE NOTED. IN CASE OF CONTRADICTION BETWEEN CONTRACT DOCUMENTS AND ANY FIELD CONDITION, INFORM THE ARCHITECT IMMEDIATELY.
13. WHERE EXISTING SUBSTRATE CONSTRUCTION IS NOT SECURELY FASTENED, REFASTEN AS NECESSARY TO ADEQUATELY SECURE SUCH EXISTING CONSTRUCTION FOR ITS INTENDED USE.
14. INSTALL PROPOSED CONSTRUCTION USING MATERIALS, TYPE, AND METHOD OF ANCHORAGE IN SUCH A WAY AS TO PROVIDE FOR EXPANSION AND CONTRACTION OF THE EXISTING SUBSTRATE AND PROPOSED CONSTRUCTION. WHERE EXPANSION AND CONTRACTION CONDITIONS ARE ENCOUNTERED AND DETAILING IS NOT PROVIDED, NOTIFY THE OWNER'S REPRESENTATION AND ARCHITECT FOR FURTHER DIRECTION PRIOR TO PROCEEDING WITH INSTALLATION.
15. PROVIDE PROPOSED SURFACES TO MEET AND MATCH EXISTING SURFACES UNLESS OTHERWISE SHOWN AND/OR SPECIFIED.
16. ALL COLORS OF FINISH MATERIALS ARE TO BE CHOSEN BY THE OWNER/ARCHITECT UNLESS OTHERWISE NOTED.

LIST OF ABBREVIATIONS

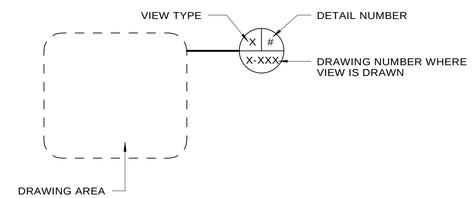
ACM	ASBESTOS CONTAINING MATERIAL	HORIZ	HORIZONTAL	REBAR	REINFORCING BAR
ALUM	ALUMINUM	HSS	HOLLOW STEEL SHAPE	REQD	REQUIRED
APPROX	APPROXIMATELY	HT	HEIGHT	RO	ROUGH OPENING
ARCH	ARCHITECT(URAL)				
		IN (")	INCHES	S	SOUTH
BCNYS	BUILDING CODE OF NEW YORK STATE	INCL	INCLUDING	SECT	SECTION
BLDG	BUILDING	INSUL	INSULATION	SIM	SIMILAR
BLKG	BLOCKING	ISO	ISOMETRIC (VIEW)	SLV	SHORT LEG VERTICAL
BS	BOTH SIDES			SPEC	SPECIFICATION(S)
		L	LENGTH/LONG	SQ FT (SF)	SQUARE FEET
CL	CENTERLINE	LF	LINEAR FEET	SST	STAINLESS STEEL
CMU	CONCRETE MASONRY UNIT	LLV	LONG LEG VERTICAL	STL	STEEL
CO	COMPANY			STRUCT	STRUCTURAL
CONC	CONCRETE	MAX	MAXIMUM	SYS	SYSTEM
CT JT	CONTROL JOINT	MATL	MATERIAL		
		MECH	MECHANICAL	TEMP	TEMPORARY
DEMO	DEMOLITION	MFR	MANUFACTURER(ED)	THK	THICK
DET	DETAIL	MIN	MINIMUM	THOLD	THRESHOLD
DIA (Ø)	DIAMETER	MISC	MISCELLANEOUS	TYP	TYPICAL
DIM(S)	DIMENSIONS	MR	MOISTURE RESISTANT		
DWG	DRAWING	MTL	METAL	UON	UNLESS OTHERWISE NOTED
E	EAST	N	NORTH	VPR BR	VAPOR BARRIER
EA	EACH	NA	NOT APPLICABLE	VERT	VERTICAL
ELEV	ELEVATION	NIC	NOT IN CONTRACT	VIF	VERIFY IN FIELD
EQ	EQUAL	NO (#)	NUMBER		
EQUIP	EQUIPMENT	NR	NON-RATED	W	WEST
EXIST	EXISTING	NTS	NOT TO SCALE	W	WIDE/WIDTH
EXP JT	EXPANSION JOINT			W/	WITH
		OA	OVERALL	W/O	WITHOUT
FLASH	FLASHING	OC	ON CENTER	WD	WOOD
FT (')	FOOT/FEET	OPP	OPPOSITE	WT	WEIGHT
		ORIG	ORIGINAL		
GA	GAUGE	OZ	OUNCE(S)	&	AND
GALV	GALVANIZED			@	AT
GC	GENERAL CONTRACTOR	PERP	PERPENDICULAR	X	BY AS IN (2X4)
GEN	GENERAL	PLYWD	PLYWOOD	±	PLUS OR MINUS
		POLYISO	POLYISOCYANURATE		
		PSI	POUNDS PER SQUARE INCH		
		PT	PRESSURE TREATED (WOOD)		



DETAIL/SECTION INDICATION



SECTION INDICATION



DETAIL INDICATION

LEADER NOTES - TYPICAL FOR ENTIRE ROOM AND/OR AREA

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

GENERAL NOTES AND ABBREVIATIONS

60% SUBMISSION

Drawn By:	Checked By:	Date:
JB	DL	21 JAN2016

Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No. 328250

Drawing Number G001

2/4/2016 7:49:41 PM

GENERAL NOTES:

1. ANY REFERENCE MADE TO THE CONTRACTOR ON THE CIVIL DRAWINGS IS REFERRING TO THE SITE CONTRACTOR, UNLESS OTHERWISE NOTED. THIS IS TYPICAL FOR ALL CIVIL DRAWINGS.

2. PRIOR TO COMMENCING ANY EXCAVATION WORK, THE CONTRACTOR SHALL CONTACT DIG SAFELY NY (811) TO VERIFY LOCATIONS OF UNDERGROUND UTILITIES AND SHALL NOTIFY APPROPRIATE GOVERNING BODIES PRIOR TO EXCAVATION.

3. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE INSIDE AND OUTSIDE THE LIMIT OF WORK DUE TO HIS CONTRACT OPERATIONS.

4. ALL REFUSE; DEBRIS AND MISC. ITEMS TO BE REMOVED SHALL BE LEGALLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.

5. CONSULT ALL OF THE DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BEFORE COMMENCING CONSTRUCTION.

6. ALL ITEMS REQUIRING REMOVAL SHALL BE REMOVED TO FULL DEPTH, INCLUDING BASE MATERIAL AND FOOTING OR FOUNDATIONS AS APPLICABLE. REMOVE TREE ROOTS TO 24" DEPTH BELOW FINISHED GRADE, AND LEGALLY DISPOSE OF OFF-SITE. BACKFILL WITH SELECT GRANULAR FILL.

7. ALL EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED THROUGHOUT THE TIME OF CONSTRUCTION, AS SPECIFIED AND/OR DIRECTED BY THE OWNER'S REPRESENTATIVE.

8. EXTEND THE DESIGNATED LIMIT OF WORK AS NECESSARY (AND ACCEPTABLE TO THE OWNER'S REPRESENTATIVE) TO ACCOMPLISH ROUGH GRADING, TREE PROTECTIONS, AND SITE UTILITY WORK AS REQUIRED BY THE CONTRACT DRAWINGS AND SPECIFICATIONS.

9. ALL EXISTING GRADES BELOW FINISHED ELEVATIONS SHALL BE STRIPPED OF ALL ORGANIC TOPSOIL, CLEARED AND GRUBBED.

10. ALL UNSUITABLE MATERIAL, AS SPECIFIED, SHALL BE REMOVED FROM THE ENTIRE SITE.

11. REFER TO SPECIFICATIONS FOR ALL INFORMATION REGARDING SHRUB AND TREE RELOCATION.

12. THE CONTRACTOR SHALL NOT DISRUPT EXISTING UTILITIES WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER. NOTIFY THE OWNER 72 HOURS IN ADVANCE OF ANY UTILITY SHUTDOWN. THE CONTRACTOR SHALL PROVIDE TEMPORARY MEANS OF CONVEYANCE FOR ALL DISRUPTED UTILITIES, ACCEPTABLE AND APPROVED BY THE OWNER'S REPRESENTATIVE, UNTIL SUCH A TIME THAT NEW SYSTEMS ARE IN SERVICE AND OPERATIONAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN LOCAL AUTHORITIES, AS REQUIRED. COORDINATE WITH SPECIFICATIONS

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND INVERT INFORMATION OF ALL EXISTING UTILITIES WITHIN THE WORK AREA PRIOR TO CONSTRUCTION, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE SURVEY SO ADJUSTMENTS CAN BE MADE AS REQUIRED. FAILURE TO DO SO SHALL BE AT THE CONTRACTORS RISK AND COST.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND RECORDING THE LIMITS OF THE EXISTING PAVEMENT TO BE RECONSTRUCTED AND MILLED PRIOR TO REMOVALS TO ENSURE THE NEW RECONSTRUCTION AND OVERLAID AREAS MATCH THE EXISTING LIMITS. FAILURE TO DO SO SHALL BE AT THE CONTRACTORS RISK AND COST.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING GRADES IN THE FIELD PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORK. FIELD VERIFICATIONS SHALL BE PERFORMED THROUGHOUT ALL AREAS OF NEW CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO, PAVEMENT, WALKS, CURBS, LAWNS, BUILDING FINISHED FLOORS, ETC. THIS FIELD VERIFICATION IS IMPERATIVE TO ENSURE THAT THERE ARE NO DISCREPANCIES BETWEEN THE SITE SURVEY AND WHAT HAS BEEN VERIFIED. IF DISCREPANCIES DO EXIST, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER'S REPRESENTATIVE IMMEDIATELY, PRIOR TO ANY CONSTRUCTION, SO NECESSARY ADJUSTMENTS AND/OR MODIFICATIONS CAN BE MADE TO ACCOMMODATE THESE DISCREPANCIES. FAILURE TO VERIFY THE GRADES PRIOR TO CONSTRUCTION THAT MAY LEAD TO PROBLEMS LATER SHALL BE AT THE RISK AND COST OF THE CONTRACTOR.

16. AT ALL LOCATIONS WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENT, THE CONTRACTOR SHALL SAWCUT AND KEY THE EXISTING PAVEMENT AND PROVIDE A SMOOTH CLEAN EDGE FOR A SMOOTH TRANSITION. TACK COAT TO BE USED AT ALL ABUTMENTS. MEET EXISTING GRADES IN BOTH LINE AND GRADE.

17. THE CONTRACTOR SHALL REFERENCE THE ARCHITECTURAL PLANS FOR ALL CONCRETE SLABS IMMEDIATELY OUTSIDE THE NEW ADDITIONS AT ALL DOOR LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION CONCERNING THE CONSTRUCTION OF THESE SLABS.

18. ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.

19. ALL LINE AND GRADE WORK PER DRAWINGS AND SPECIFICATIONS SHALL BE LAID OUT BY A LICENSED PROFESSIONAL SURVEYOR ENGAGED BY THE CONTRACTOR. ALL STAKED LAYOUTS OF PAVEMENTS AND SITE IMPROVEMENTS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION/CONSTRUCTION. HORIZONTAL AND VERTICAL CONTROL MONUMENTATION SHALL BE MAINTAINED THROUGHOUT THE PROJECT. CONTRACTOR WILL BE PROVIDED WITH AN ELECTRONIC VERSION OF THE PLANS FOR LAYOUT. FORMAT WILL BE AUTOCAD 2013.

20. WHERE CURVING WALKS ARE LAID OUT BY OFFSETS, PROVIDE GENTLE HORIZONTAL CURVES BETWEEN OFFSET POINTS. THESE WALKS SHALL BE ADEQUATELY STAKED BY THE CONTRACTOR FOR REVIEW BY THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.

21. ALL PAINT MARKINGS SHALL BE PER THE COLORS AND WIDTHS OF THE NYSDOT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

22. ALL DAMAGED/DISTURBED LAWNS SHALL BE TOPSOILED, SEEDED AND MULCHED SEE THE LANDSCAPING PLANS AND SPECIFICATIONS FOR SPECIFIC PLANTING AND SEEDING REQUIREMENTS.

UTILITY NOTES:

1. INFORMATION AND SHOP DRAWINGS FOR MATERIALS THE CONTRACTOR INTENDS TO UTILIZE IN THE CONSTRUCTION OF ALL UTILITY SYSTEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO THE PLACEMENT OF ANY MATERIAL ORDERS. FAILURE TO DO SO SHALL BE AT THE CONTRACTORS RISK.

2. CONTRACTOR SHALL APPLY FOR AND OBTAIN A PERMIT FROM TOWN OF SCHAGHTICOKE FOR ALL WATER AND STORM SEWER CONNECTIONS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY MEANS OF PROTECTION FOR ALL EXISTING UTILITIES REMAINING WITHIN THE WORK AREA DURING ALL PHASES OF CONSTRUCTION.

4. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THIS EFFORT WITH REGARDS TO ALL WORK WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.

5. ANY DAMAGE TO EXISTING UTILITIES THAT ARE TO REMAIN CAUSED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPLACED/REPAIRED AT THE COST OF THE CONTRACTOR, TO THE SATISFACTION OF THE ENGINEER.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY MEANS OF SERVICE FOR ALL DISRUPTED UTILITY SYSTEMS UNTIL SUCH A TIME THAT ALL NEW SYSTEMS ARE INSTALLED AND OPERATIONAL, AS APPROVED BY THE ENGINEER.

7. WATER MAIN INSTALLATION, INCLUDING ALL PIPING, FITTINGS, VALVES AND HYDRANTS SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE SCHAGHTICOKE WATER DEPARTMENT CODES AND REGULATIONS.

8. UNLESS OTHERWISE INDICATED, WATER MAINS SHALL BE DUCTILE IRON PIPE, SANITARY SEWERS SHALL BE PVC (SDR 35), AND STORM SEWERS TO BE CORRUGATED POLYETHYLENE WITH SMOOTH INTERIOR.

GENERAL SITE

	EXISTING	PROPOSED
PROPERTY LINE	R R R	
EDGE OF PAVEMENT		
MAJOR CONTOUR		
MINOR CONTOUR		
SIDEWALK		
SINGLE POLE SIGN		
TREE		
SHRUB		
TREE OR BRUSH LINE		
FENCE - CHAIN LINK		
TEST HOLE	TH1	
WORK LIMIT		WL WL WL

SURVEY CONTROLS

	EXISTING	PROPOSED
IRON PIN		
BENCHMARK	BM	
HORIZONTAL CONTROL POINTS		
SPOT ELEVATION	X 245.20	250X50

UTILITY STRUCTURES

	EXISTING	PROPOSED
STORM MANHOLE	D	MH_001
CATCH BASIN	CB-1	CB_001
DRY WELL		
SEWER MANHOLE	S	MH_001
WATER VALVE	WV	WV
HYDRANT		
WATER SHUT-OFF	WSO	WSO
UTILITY POLE		
GUY WIRE		
CLEAN OUT	CO	CO
WELL	W	W1

UTILITY LINES

	EXISTING	PROPOSED
OVERHEAD ELECTRIC	OE OE OE	OE OE OE
UNDERGROUND ELECTRIC	UGE UGE UGE	UGE UGE UGE
UNDERGROUND GAS	UGG UGG UGG	UGG UGG UGG
WATER	W W W	W W W
SANITARY	SAN SAN SAN	SAN SAN SAN
STORM	ST ST ST	ST ST ST

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2013.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Ferris Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

Notes & Legend

60% SUBMISSION

Drawn By:	Checked By:	Date:
SMK	THF	21 JAN 2016

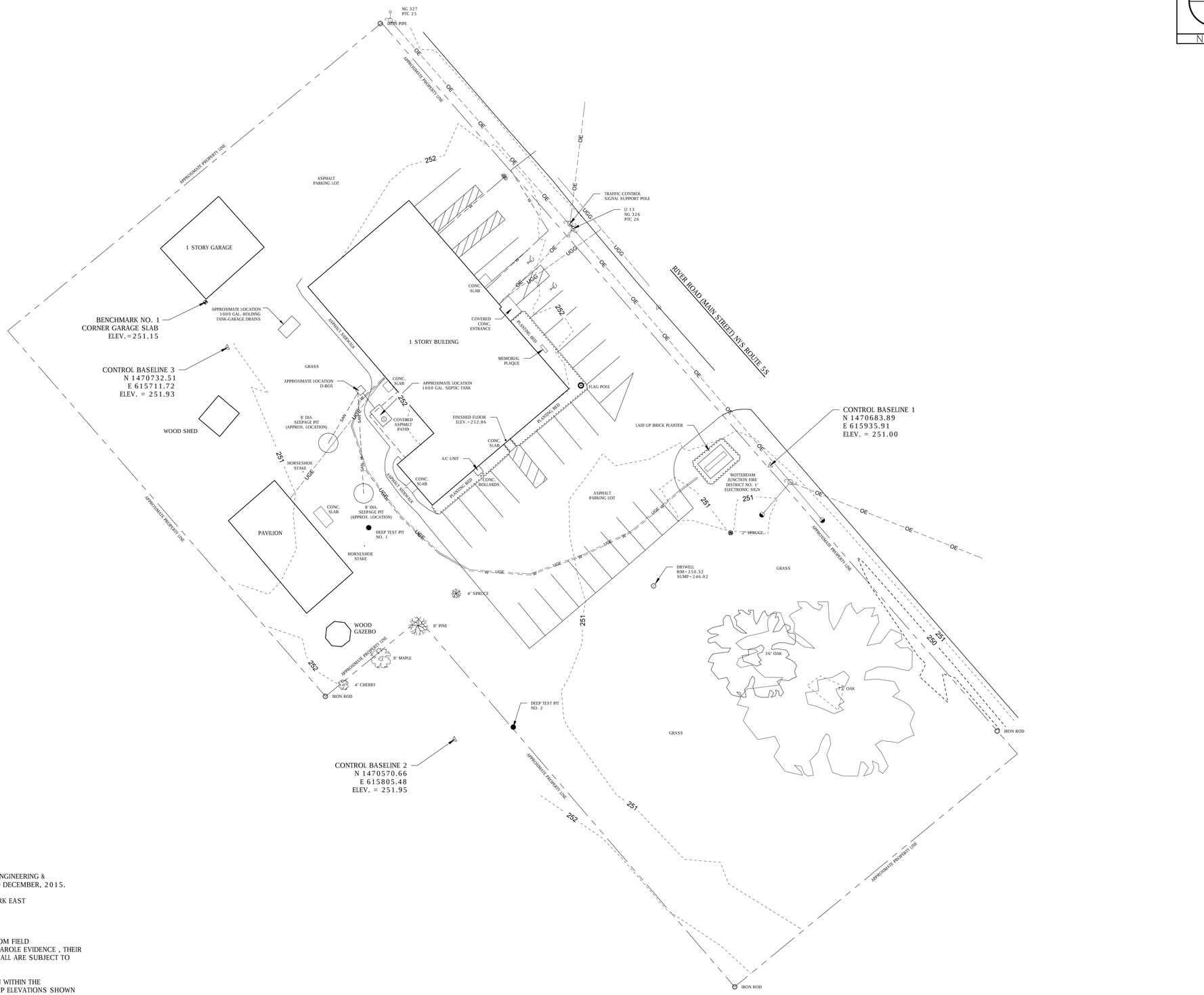
Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No
328250

Drawing Number
C001

11205



NOTES:

1. MAPPING PREPARED BY RYAN BIGGS | CLARK DAVIS ENGINEERING & SURVEYING, P.C., FROM A FIELD SURVEY COMPLETED DECEMBER, 2015.
2. NORTH REFERENCE USED HEREON IS NAD 83 NEW YORK EAST ZONE PLANE COORDINATE SYSTEM.
3. VERTICAL REFERENCE USED HEREON IS NAVD 88.
4. UNDERGROUND UTILITIES AS SHOWN HEREON ARE FROM FIELD LOCATION OF EXISTING MARK OUT BY OTHERS AND PAROLE EVIDENCE , THEIR LOCATION IS APPROXIMATE, OTHERS MAY EXIST, AND ALL ARE SUBJECT TO VERIFICATION BY OTHERS.
5. ACCESS TO EXISTING STRUCTURES AND INFORMATION WITHIN THE STRUCTURES HAS BEEN LIMITED BY DEBRIS. ANY SUMP ELEVATIONS SHOWN HEREON SHOULD BE ASSUMED TO BE ON TOP OF DEBRIS AND NOT THE ACTUAL BOTTOM OF THE STRUCTURE.

GRAPHIC SCALE

NORTH

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2013.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Farts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

Existing Conditions

60% SUBMISSION

Drawn By:	Checked By:	Date:
SMK	THF	21 JAN 2016

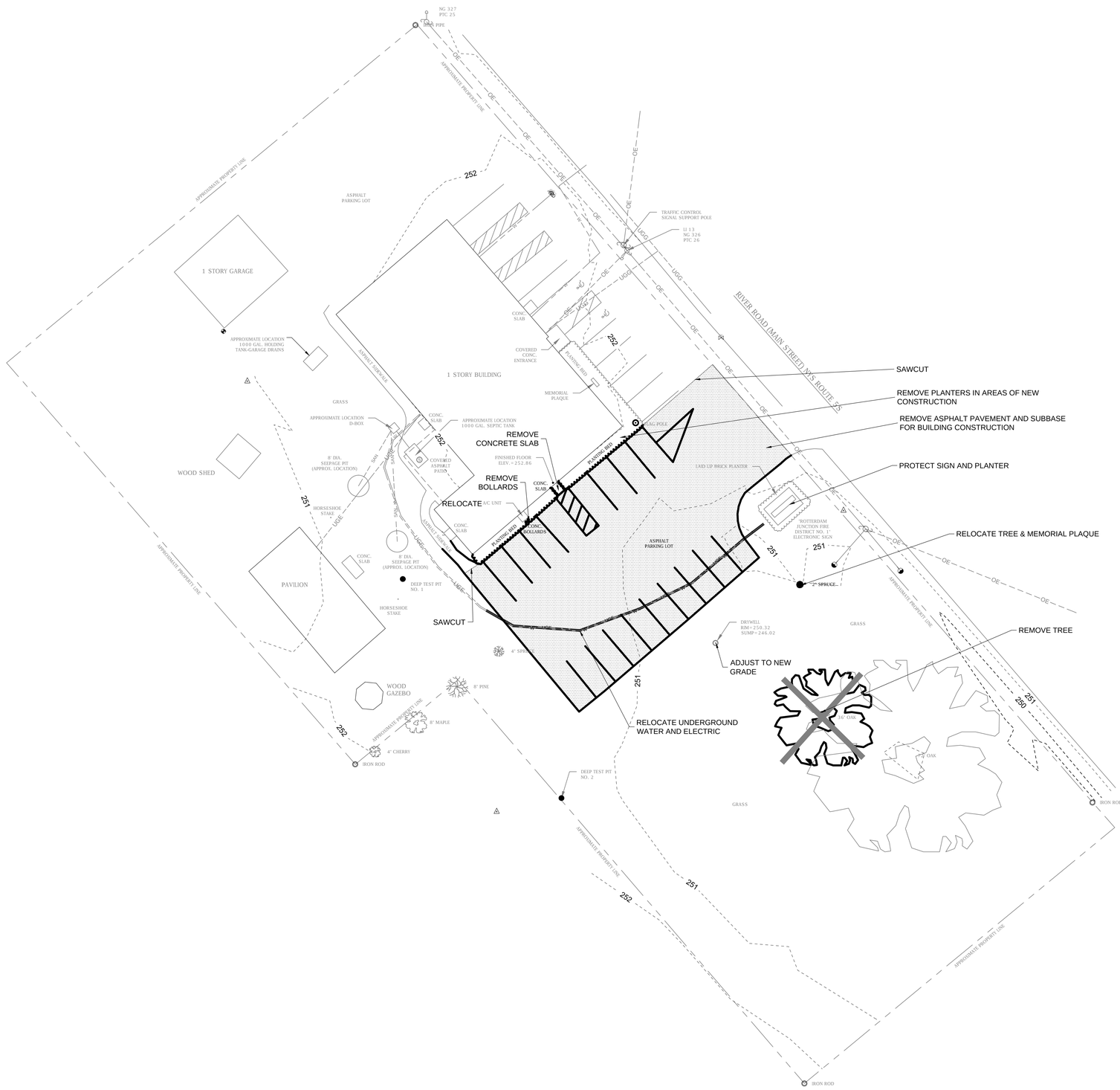
Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No
328250

Drawing Number
C101

11205



NORTH

GRAPHIC SCALE

20' 0 10' 20' 40' 80'

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT 8/2013.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Farts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

Removals Plan

60% SUBMISSION

Drawn By:	Checked By:	Date:
SMK	THF	21 JAN 2016

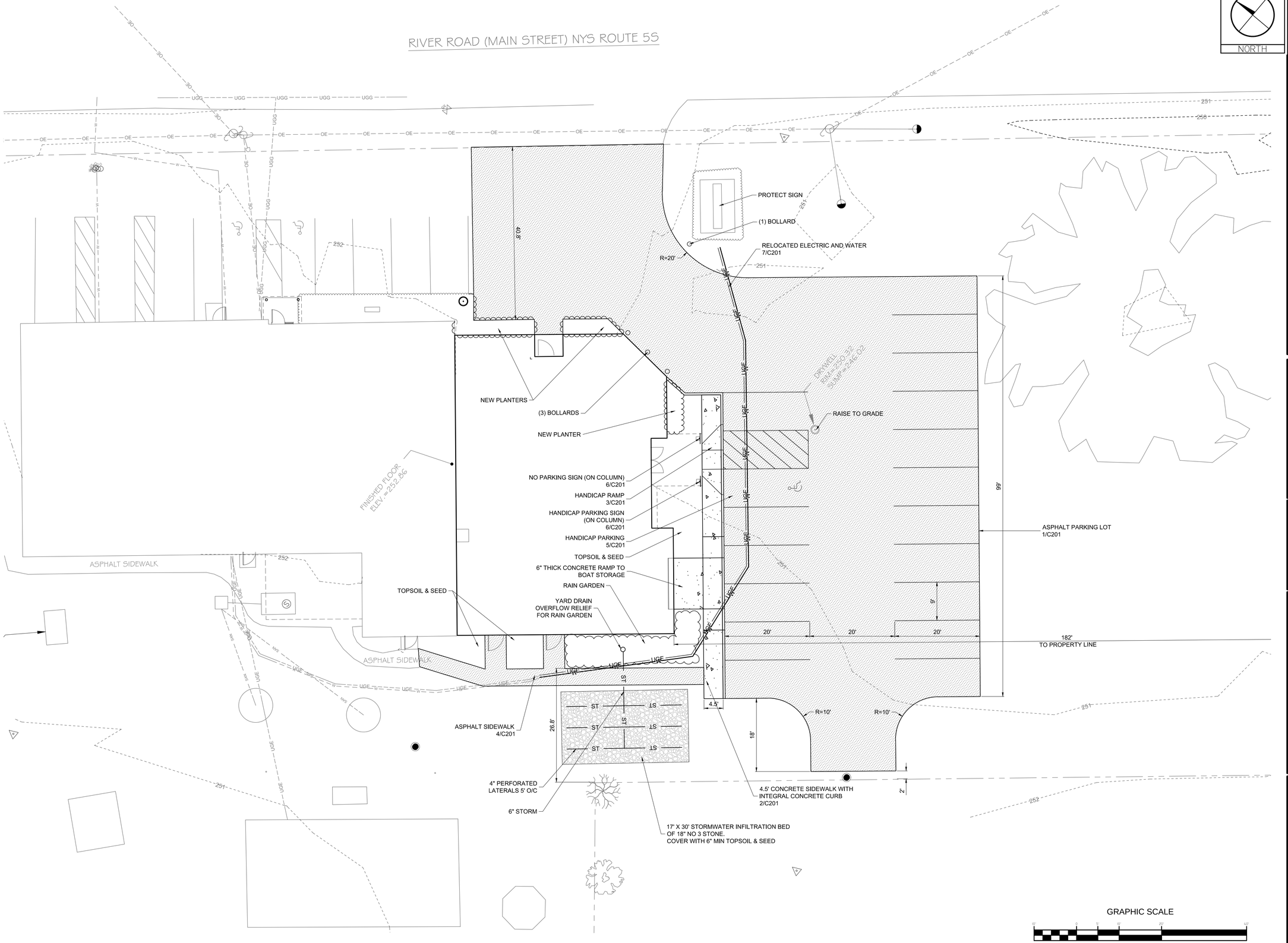
Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No
328250

Drawing Number
C102

11205



NEW YORK STATE OF OPPORTUNITY. | DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT 8/2013.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Ferris Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

Site Plan

60% SUBMISSION

Drawn By:	Checked By:	Date:
SMK	THF	21 JAN 2016

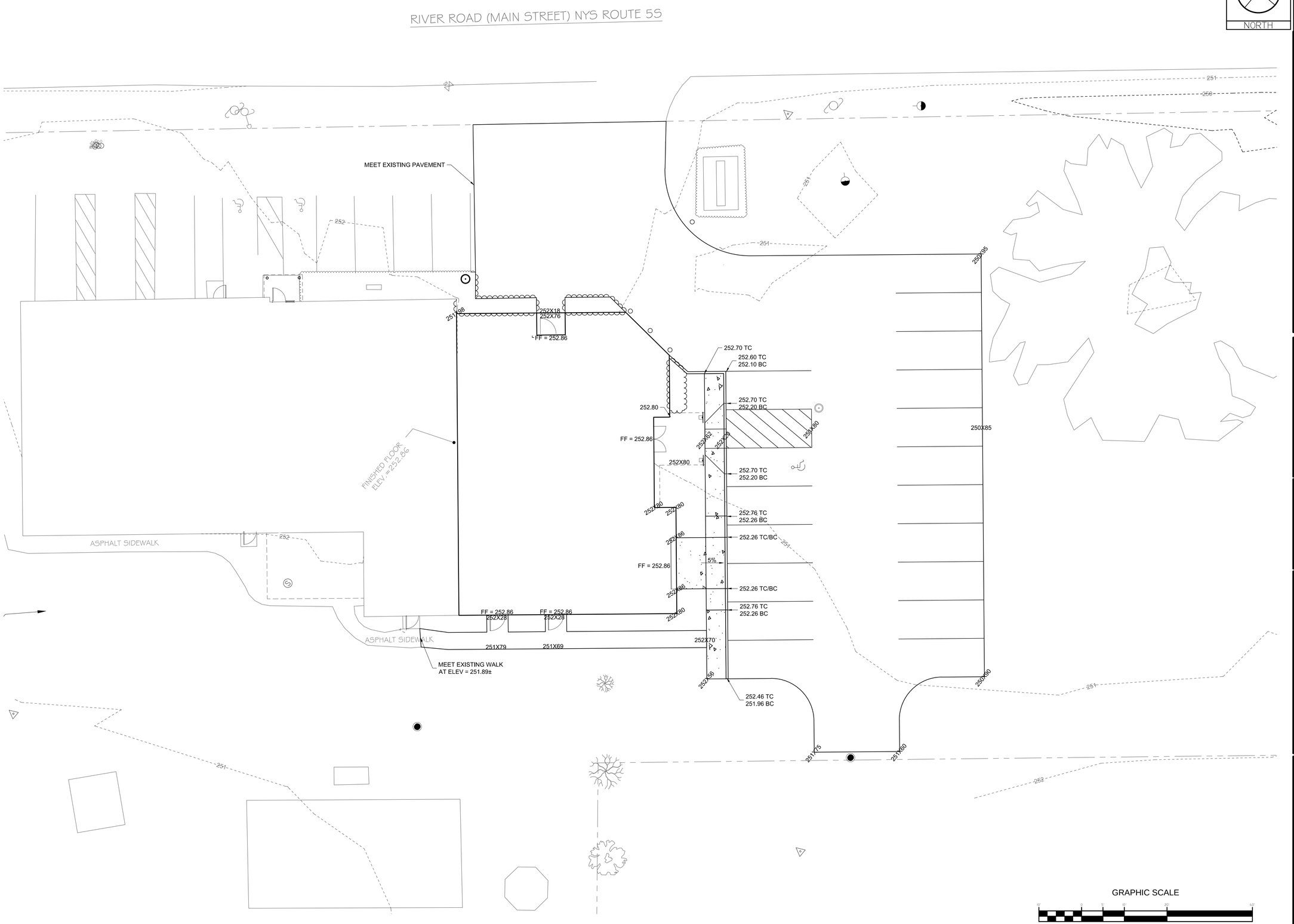
Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No
328250

Drawing Number
C103

11205



NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT 8/2013

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Ferris Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades

1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

Grading Plan

60% SUBMISSION

Drawn By:	Checked By:	Date:
SMK	THF	21 JAN 2016

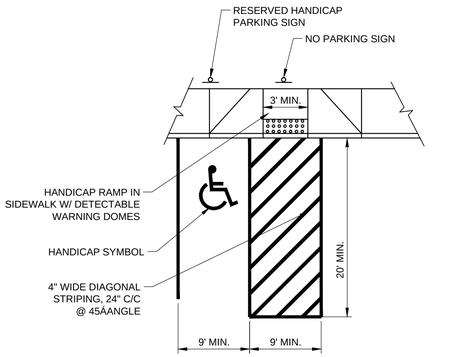
Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No
328250

Drawing Number
C104

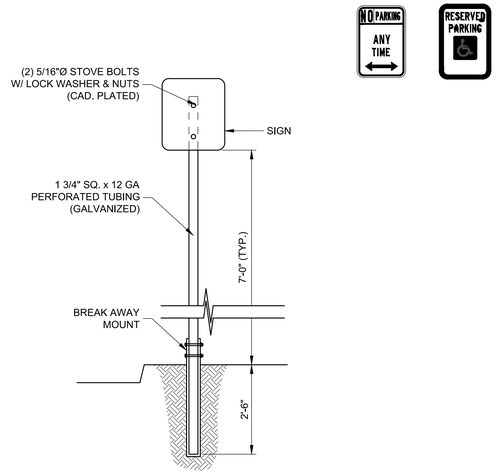
11205



NOTES:
1. ALL HANDICAP STRIPING TO BE BLUE PAINT
2. SIGNS TO BE 5' - 7' ABOVE GRADE

5 HANDICAP PARKING SPACES

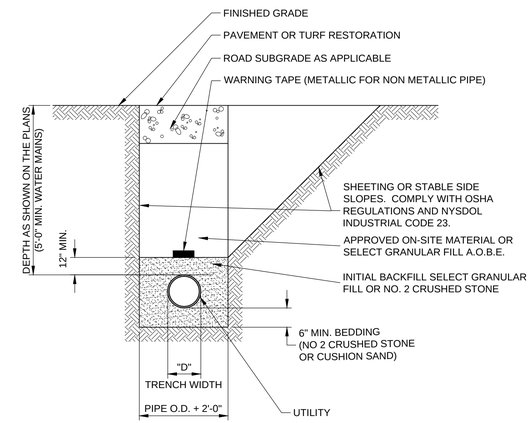
SCALE: N.T.S.



6 SIGN INSTALLATION

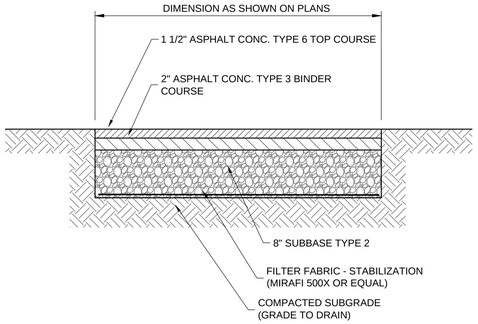
SCALE: N.T.S.

NOTES:
1. COMPACT ALL BACKFILL TO 95% PROCTOR (ASTM D1557)



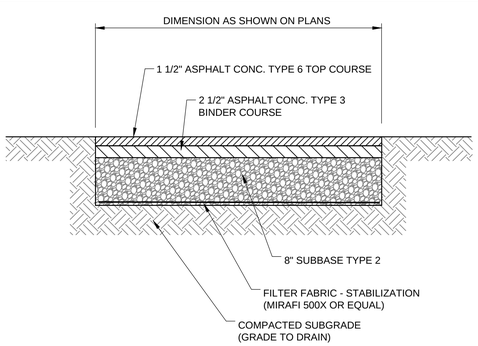
7 UTILITY TRENCH

SCALE: N.T.S.



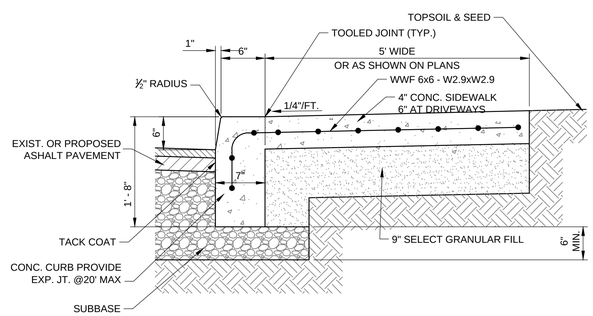
4 ASPHALT SIDEWALK

SCALE: N.T.S.



1 ASPHALT PARKING

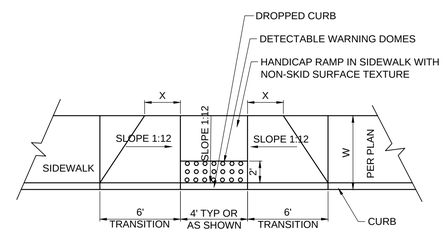
SCALE: N.T.S.



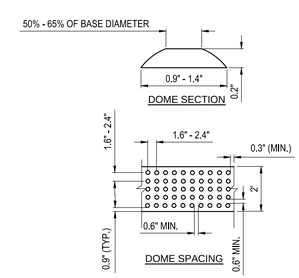
NOTE:
1. CONCRETE: 4500 PSI @ 28 DAYS
2. JOINTS: CONTROL JOINTS @ 5'-0" O.C. 1/2" PREFORMED EXPANSION JOINTS @ 20' O.C.
3. SEALER: APPLY (2) COATS OF APPROVED CONCRETE CURING COMPOUND/SEALER - COVERAGE PER MANUFACTURER'S RECOMMENDATION.

2 INTEGRAL CONCRETE SIDEWALK AND CURB

SCALE: N.T.S.



W	X
4'	2'
4'-6"	1'-6"
5'	1'
5'-5"	6"
>6'	0"



3 HANDICAP RAMP WITH DETECTABLE WARNING DOMES

SCALE: N.T.S.

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2013

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Parts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL.: (518) 877-8566
FAX: (518) 877-8599

BAER ASSOCIATES LLC

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

Site Details

60% SUBMISSION

Drawn By:	Checked By:	Date:
SMK	THF	21 JAN 2016

Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No
328250

Drawing Number
C201

11205

DESIGN DATA NOTES

1. GENERAL:

DESIGN PROVISIONS ..... 2010 BUILDING CODE OF NEW YORK STATE (BCNYS)
BUILDING OCCUPANCY CATEGORY IV
TERRAIN/EXPOSURE CATEGORY ..... B
BASIC SEISMIC/MAIN WIND FORCE RESISTING SYSTEM:
NORTH-SOUTH: ..... INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
EAST-WEST: ..... BRACED FRAME AND INTERMEDIATE REINFORCED MASONRY SHEAR WALLS

2. LIVE LOADS:

ROOFS HAVE BEEN DESIGNED TO SUPPORT THE UNIFORMLY DISTRIBUTED LIVE LOAD.

UNIFORMLY DISTRIBUTED LIVE LOADS:

ROOF: UNIFORM GROUND SNOW LOAD (P_g) ..... 50 psf
UNIFORM FLAT-ROOF SNOW LOAD (P_f) ..... 42 psf
SNOW EXPOSURE FACTOR (C_e) 1.0
THERMAL FACTOR (C_t) 1.0
IMPORTANCE FACTOR (I_s) 1.2
RAIN LOAD (8 INCHES OF ACCUMULATION) ..... 42 psf
A CODE COMPLIANT SECONDARY DRAINAGE SYSTEM SHALL BE PROVIDED TO LIMIT THE ACCUMULATED DEPTH OF WATER TO THIS AMOUNT OR LESS.
RAIN-ON-SNOW SURCHARGE LOAD ..... 42 psf
(DRIFTED, UNBALANCED, AND SLOPED-ROOF SLIDING SNOW AS PER AMERICAN SOCIETY OF CIVIL ENGINEERS STANDARD, ASCE 7)

3. DEAD LOADS:

ROOF: ..... 25 psf

PORTION OF ABOVE DEAD LOAD CONSIDERED FOR MECHANICAL EQUIPMENT AND PIPING SUSPENDED FROM STRUCTURAL FRAMING:

ROOF: ..... 5 psf

(CONCENTRATED LOADS SHALL BE LIMITED TO THOSE WHICH INDUCE MOMENTS AND SHEARS IN MEMBERS NOT GREATER THAN THOSE INDUCED BY THE NOTED UNIFORMLY DISTRIBUTED LOADS.)

DO NOT SUSPEND CONCENTRATED LOADS FROM ROOF DECK.

SEE PLAN FOR LOCATIONS AND WEIGHTS OF LARGE EQUIPMENT. WEIGHT OF THIS EQUIPMENT IS IN ADDITION TO THE UNIFORM LOADS INDICATED ABOVE. SEE ALSO STRUCTURAL STEEL NOTES.

4. SEISMIC LOADS:

SITE CLASS: ..... D
SHORT-PERIOD DESIGN ACCELERATION (S_{DS}): 0.258
ONE-SECOND DESIGN ACCELERATION (S_{D1}): 0.113
SHORT PERIOD MAPPED SPECTRAL RESPONSE (S_S): 0.242
ONE-SECOND MAPPED SPECTRAL RESPONSE (S_1): 0.071
SEISMIC DESIGN CATEGORY: C
IMPORTANCE FACTOR (I_E): 1.5
SYSTEM COEFFICIENT R (NORTH-SOUTH): 3
SYSTEM COEFFICIENT R (EAST-WEST): 3
ANALYSIS PROCEDURE: ..... ELFRP
SEISMIC RESPONSE COEFFICIENT (C_S): 0.129
SEISMIC DESIGN BASE SHEAR (V): 31K

5. WIND LOADS:

MAIN WIND FORCE RESISTING SYSTEM HAS BEEN DESIGNED USING THE ANALYTICAL PROCEDURE OF ASCE 7-05. SECTION 6.5, AS REFERENCED IN BCNYS SECTION 1609.1 FOR THE FOLLOWING:

BASIC WIND SPEED (3 SECOND GUST): ..... 90 mph
DIRECTIONALITY FACTOR (K_d): 0.85
IMPORTANCE FACTOR (I_w): 1.15
TOPOGRAPHIC FACTOR (K_{zt}): 1.0
GUST EFFECT FACTOR (G): 0.85
ENCLOSURE CLASSIFICATION: ..... ENCLOSED
INTERNAL PRESSURE COEFFICIENT (GC_{pi}): ..... ±0.18
HEIGHT OF MAIN ROOF: ..... 16 feet

AVERAGE LATERAL WIND PRESSURE:

HEIGHT ABOVE GRADE	LATERAL PRESSURE
0' TO 15'	17 psf
16' TO 17'	18 psf

SEE 1/S001 FOR ADDITIONAL WIND LOAD DATA FOR ROOFS, OVERHANGS, COMPONENTS, AND CLADDING. NEW UPLIFT LOAD ON ROOF FRAMING COMPONENTS SHALL BE DETERMINED BY DEDUCTING 10 psf DEAD LOAD FROM THE TABULATED ROOF WIND LOADS FOR COMPONENTS AND CLADDING. IF THE NET UPLIFT VALUE IS LESS THAN 5 psf, USE 5 psf.

6. SOIL PRESSURE:

PRESUMPTIVE SOIL BEARING PRESSURE: 2,000 PSF (ON UNDISTURBED MATERIAL OR COMPACTED STRUCTURAL FILL).

FOUNDATION DESIGN BASED ON RECOMMENDATIONS INCLUDED IN GEOTECHNICAL EVALUATION FIREHOUSE ADDITIONS ROTTERDAM JUNCTION, NEW YORK DATED JANUARY 4, 2016

7. STRUCTURAL MATERIAL STRENGTHS:

STRUCTURAL AND MISCELLANEOUS STEEL:

ROLLED STEEL W SHAPES ..... - ASTM A 992
ROLLED STEEL PLATES, BARS, AND ANGLES ..... - ASTM A 36
HOLLOW STRUCTURAL SECTIONS (HSS) ..... - ASTM A 500, GRADE B OR C
FOR CONNECTIONS, PROVIDE HIGHER GRADE AS REQUIRED FOR CAPACITY.

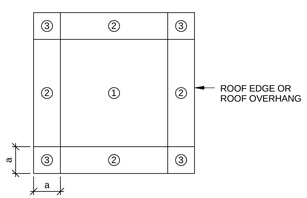
CONCRETE:

FOOTINGS, MISCELLANEOUS ..... f'c = 3,000 psi
INTERIOR SLABS ON GRADE OR SLABS ON DECK ..... f'c = 3,500 psi
RETAINING WALLS, BASEMENT WALLS, FOUNDATION WALLS, PIERS ..... f'c = 4,000 psi
EXTERIOR SLABS ON GRADE ..... f'c = 4,500 psi
(SEE SPECIFICATIONS FOR SLUMP AND AIR ENTRAINMENT)

MASONRY:

MORTAR: ..... ASTM C 270, TYPE S
UNIT MASONRY: ..... ASTM C 90 CMU (2,000 psi) AND TYPE S MORTAR
f'm = 2,000 psi [USE TMS 403-2013]

REINFORCING STEEL FOR CONCRETE AND MASONRY: ..... ASTM A 615, GRADE 60

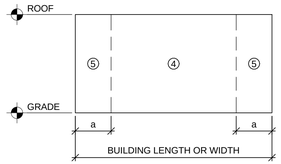


FLAT/SINGLE SLOPED ROOF

1 S001 ROOF PLAN - COMPONENTS AND CLADDING ROOF WIND PRESSURE ZONE DESIGNATIONS

NOT TO SCALE

NOTE:
a = 10 PERCENT OF LEAST HORIZONTAL DIMENSION OR 0.4xROOF HEIGHT, WHICHEVER IS SMALLER, BUT NOT LESS THAN EITHER 4 PERCENT OF LEAST HORIZONTAL DIMENSION NOR 3 FEET.



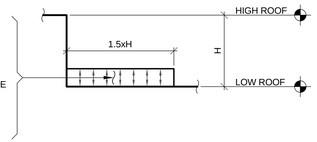
FLAT/SINGLE SLOPED ROOF

2 S001 EXTERIOR WALL ELEVATION - COMPONENTS AND CLADDING WALL WIND PRESSURE ZONE DESIGNATIONS

NOT TO SCALE

NOTE:
SEE 1/S001 FOR DEFINITION OF a.

WITHIN THIS ZONE THE FOLLOWING DESIGN PRESSURES SHALL APPLY:
1. FOR PRESSURE TOWARDS SURFACE USE SAME AS WALL PRESSURE ZONE 4 AND 5.
2. FOR PRESSURE AWAY FROM SURFACE USE SAME AS ROOF PRESSURES EXCEPT ZONE 2 SHALL BE TREATED AS ZONE 1, AND ZONE 3 SHALL BE TREATED AS ZONE 2.



3 S001 SECTION - COMPONENTS AND CLADDING ROOF WIND PRESSURE ZONE DESIGNATIONS AT ROOF STEPS

NOT TO SCALE

DESIGN WIND PRESSURE FOR EXTERIOR COMPONENTS AND CLADDING MATERIALS

ROOF SLOPE	SURFACE	EFFECTIVE WIND AREA (sf)	WIND PRESSURE TOWARD SURFACE (psf)	WIND PRESSURE AWAY FROM SURFACE (psf)
0° TO 7°	ZONE 1 ROOF	10 20 50 100	10 10 10 10	17 16 16 15
	ZONE 2 ROOF EDGES	10 20 50 100	10 10 10 10	28 25 21 18
	ZONE 2 ROOF OVERHANG AT ROOF EDGES	10 20 50 100	0 0 0 0	24 24 23 23
	ZONE 3 ROOF CORNERS	10 20 50 100	10 10 10 10	42 35 25 18
	ZONE 3 ROOF OVERHANG AT ROOF CORNERS	10 20 50 100	0 0 0 0	40 31 20 12
NA	ZONE 4 WALL	10 20 50 100 500	17 16 15 14 13	18 17 16 16 14
	ZONE 5 WALL CORNERS	10 20 50 100 500	17 16 15 14 13	22 21 19 17 14

4 S001 WIND LOAD DATA FOR COMPONENTS AND CLADDING

NOT TO SCALE

GENERAL NOTES

1. DIMENSIONS TO, OF, AND IN EXISTING STRUCTURE SHALL BE VERIFIED IN FIELD BY CONTRACTOR.
2. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES IN DIMENSIONS BETWEEN EXISTING CONDITIONS AND/OR ARCHITECTURAL DRAWINGS AND THE STRUCTURAL DRAWINGS.
3. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
4. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
5. THE NOTES ON THIS DRAWING ARE TYPICAL UNLESS OTHERWISE INDICATED.
6. BRACE BUILDING UNTIL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: (FLOOR DECK, ROOF DECK, BRACING MEMBERS, SHEAR WALLS, MOMENT CONNECTIONS, ETC.).
7. CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF PROPOSED DEVIATIONS OR SUBSTITUTIONS FROM DIMENSIONS, MATERIALS, OR EQUIPMENT SHOWN ON THE DRAWINGS AND MAKE ONLY THOSE DEVIATIONS OR SUBSTITUTIONS ACCEPTED BY ENGINEER.
8. CONTRACTOR SHALL DETERMINE EXACT LOCATIONS OF EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREEES TO BE FULLY RESPONSIBLE FOR DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE EXISTING UTILITIES.
9. COORDINATE NUMBER AND LOCATION OF ROOF DRAINS AND OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
10. DO NOT SUSPEND MECHANICAL, ELECTRICAL, OR PLUMBING ITEMS FROM ROOF DECK. REFER TO THE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS AND SPECIFICATIONS FOR HANGERS AND SUPPLEMENTAL FRAMING REQUIRED TO ATTACH THESE ITEMS TO THE MAIN ROOF FRAMING.
11. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY.
12. DESIGNED IN ACCORDANCE WITH THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE WITH AMENDMENTS.

FOUNDATION NOTES

1. BEAR FOOTINGS ON FIRM UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL.
2. FOOTINGS HAVE BEEN DESIGNED FOR A SOIL BEARING PRESSURE OF 2,000 psf. BEARING STRATUM FOR THIS CAPACITY SHALL BE VERIFIED IN FIELD BY A LICENSED GEOTECHNICAL ENGINEER BEFORE CASTING CONCRETE FOOTINGS.
3. UNLESS OTHERWISE NOTED, BOTTOM OF EXTERIOR FOOTINGS IS 4 FEET MINIMUM BELOW FINISH GRADE AND BOTTOM OF INTERIOR FOOTINGS IS 2 FEET MINIMUM BELOW SLAB. FOOTINGS MAY BE STEPPED DOWN OR LOWERED TO REACH AN ACCEPTABLE 2,000 psf BEARING STRATUM AS DETERMINED BY GEOTECHNICAL ENGINEER.
4. ELEVATIONS OF BOTTOM OF FOOTINGS ARE FOR ESTIMATING PURPOSES AND WILL BE ADJUSTED TO REQUIRED BEARING STRATA AS DETERMINED UPON EXCAVATION.
5. SOIL BEARING SURFACES PREVIOUSLY ACCEPTED BY GEOTECHNICAL ENGINEER WHICH ARE ALLOWED TO BECOME SATURATED, FROZEN, OR DISTURBED SHALL BE REWORKED TO SATISFACTION OF GEOTECHNICAL ENGINEER.
6. WHERE FOOTING ELEVATIONS ARE LOWERED DUE TO SOIL CONDITIONS, LOWER ADJACENT FOOTINGS IN ELEVATION IN ORDER THAT RATIO OF CLEAR DISTANCE BETWEEN NEAREST EDGE OF FOOTINGS TO DIFFERENCE IN ELEVATION BETWEEN BOTTOMS OF FOOTINGS SHALL NOT EXCEED 2H:1V.
7. FOUNDATION PREPARATION: REFER TO SPECIFICATIONS FOR "EXCAVATION, BACKFILL, AND COMPACTION (BUILDING AREA)."
8. STRIP AND PROOF ROLL ENTIRE BUILDING AREA. PLACE AND COMPACT STRUCTURAL FILL TO REACH REQUIRED SUBGRADE LEVELS. VERIFY PROCEDURES WITH GEOTECHNICAL ENGINEER BEFORE BEGINNING. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
9. DO NOT PLACE FOOTINGS IN WATER OR ON FROZEN GROUND.
10. DO NOT ALLOW GROUND BENEATH FOOTINGS TO FREEZE.
11. CENTER FOOTINGS UNDER WALLS, PIERS, AND COLUMNS UNLESS NOTED OTHERWISE.
12. WHERE REQUIRED, STEP NEW FOOTINGS UP OR DOWN IN RATIO OF TWO HORIZONTALS TO ONE VERTICAL TO JOIN EXISTING FOOTINGS.
13. CONCRETE WALLS SHALL ATTAIN A MINIMUM STRENGTH OF 70% f'c BEFORE PLACING BACKFILL AGAINST THEM.
14. WALLS THAT ARE TO BE BACKFILLED ON ONE SIDE ONLY MAY BE BACKFILLED UP TO 3 FEET ABOVE THE TOP OF FOOTING AFTER WALLS ATTAIN MINIMUM STRENGTH OF 70% f'c. REMAINING BACKFILL MAY NOT BE PLACED UNTIL TOP SLAB IS IN PLACE, SLAB ATTAINS MINIMUM STRENGTH OF 70% f'c, AND WALLS ATTAIN MINIMUM STRENGTH 100% f'c.

CAST-IN-PLACE CONCRETE NOTES (FOUNDATION)

1. REINFORCE CONCRETE ELEMENTS INCLUDING FOOTINGS, WALLS, PIERS, AND SLABS. REINFORCEMENT SHOWN PERTAINS TO TYPICAL CONDITIONS.
2. LAP SPLICE CONCRETE REINFORCEMENT AS INDICATED IN THE CONCRETE REINFORCEMENT LAP SPLICE SCHEDULE, UNLESS NOTED OTHERWISE.
3. LAP CONTINUOUS FOOTING AND HORIZONTAL WALL REINFORCEMENT WITH A CLASS B LAP SPLICE UNLESS NOTED OTHERWISE.
4. PROVIDE CORNER BARS IN FOOTINGS, THE SAME SIZE AND NUMBER AS CONTINUOUS REINFORCEMENT. PROVIDE CLASS B LAP SPLICE WITH MAIN REINFORCEMENT, BUT NOT LESS THAN 2'-0".
5. EXTEND REINFORCEMENT IN WALL FOOTINGS BETWEEN COLUMNS INTO COLUMN FOOTINGS WITH A MINIMUM EMBEDMENT EQUAL TO THE MINIMUM BAR DEVELOPMENT LENGTH.
6. PLACE TRANSVERSE REINFORCEMENT IN CONTINUOUS FOOTINGS WHERE SHOWN IN BOTTOM LAYER.
7. CAST STEPPED FOOTINGS MONOLITHICALLY.
8. DOWEL CONCRETE WALLS AND PIERS INTO FOOTINGS WITH DOWELS THE SAME SIZE AND SPACING AS VERTICAL REINFORCEMENT. EXTEND DOWELS TO WITHIN 3 INCHES OF BOTTOM OF FOOTING, TERMINATED WITH A C.I. STANDARD 90 DEGREE HOOK. PROVIDE CLASS B LAP SPLICE WITH VERTICAL REINFORCEMENT UNLESS NOTED OTHERWISE.
9. AT INTERSECTIONS OF CONCRETE WALLS, PROVIDE CORNER BARS IN OUTER LAYER THE SAME SIZE AND SPACING AS HORIZONTAL REINFORCEMENT AND PROVIDE A CLASS B LAP SPLICE WITH MAIN REINFORCEMENT, BUT NOT LESS THAN 2'-0". AT "T" INTERSECTIONS, PROVIDE CORNER BARS FROM EACH LAYER IN INTERSECTING WALL TO OUTER LAYER OF THROUGH WALL.
10. PROVIDE KEYS IN CONCRETE WALLS AND FOOTINGS AT VERTICAL CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE. KEYS SHALL BE 1 1/2 INCHES DEEP AND THE WIDTH OF THE KEY SHALL BE ONE-THIRD THE WALL THICKNESS AND CENTERED WITHIN THE WALL.
11. CAST CONCRETE PIERS IN CONCRETE WALLS MONOLITHICALLY WITH WALLS.
12. ALIGN FOUNDATION WALL CONSTRUCTION JOINTS WITH MASONRY WALL CONTROL JOINTS.
13. VERIFY SIZE AND LOCATION OF MECHANICAL OPENINGS.
14. PIPING, CONDUIT, AND DUCT PENETRATIONS THROUGH STRUCTURAL SLABS AND WALLS SHALL BE SLEEVED OR CHASED. NO CORE-DRILLING OF SLABS OR WALLS IS PERMITTED. PENETRATIONS ARE NOT PERMITTED THROUGH COLUMNS, PIERS, BEAMS, GRADE BEAMS, AND JOISTS.
15. MINIMUM BAR DEVELOPMENT LENGTH EQUALS CLASS A LAP LENGTH.
16. CHAMFER EXPOSED CONCRETE CORNERS AND EDGES 3/4 INCH UNLESS NOTED OTHERWISE.
17. CONCRETE COVER FOR REINFORCEMENT SHALL BE AS INDICATED IN THE CONCRETE COVER SCHEDULE.
18. PROVIDE FULL-HEIGHT DOVETAIL SLOT INSERTS IN CONCRETE WITH ABUTTING MASONRY. PLACE ANCHORS AT 16 INCHES ON CENTER VERTICALLY.
19. PROVIDE FULL-HEIGHT DOVETAIL SLOT INSERTS AT 16 INCHES ON CENTER HORIZONTALLY IN CONCRETE WALLS FACED WITH MASONRY. PLACE ANCHORS AT 16 INCHES ON CENTER VERTICALLY.
20. PROVIDE WATERSTOPS IN BELOW-GRADE WALL JOINTS, WALL-TO-WALL FOOTING JOINTS, AND SLAB-TO-WALL JOINTS.

CONCRETE COVER SCHEDULE

LOCATION	COVER
FOOTINGS POURED AGAINST EARTH:	3"
SURFACE EXPOSED TO WEATHER OR EARTH (INCLUDING SURFACES OF FOUDATION WALLS COVERED WITH WATERPROOFING MEMBRANE AND/OR INSULATION): BARS LARGER THAN #5 #5 BARS OR SMALLER	 2" 1 1/2"
SURFACES NOT EXPOSED TO WEATHER OR EARTH: SLABS AND WALLS BEAMS, GIRDERS, PIERS, AND COLUMNS	 3/4" 1 1/2"
BETWEEN BARS AND EMBEDDED ITEMS: IN CONCRETE ELEMENTS EXPOSED TO WEATHER OR EARTH IN CONCRETE ELEMENTS NOT EXPOSED TO WEATHER OR EARTH	 1 1/2" 3/4"

CONCRETE REINFORCEMENT LAP SPLICE SCHEDULE

BAR LAP LENGTHS, UNCOATED BARS
CLEAR COVER NOT LESS THAN TWO TIMES BAR DIAMETER
CLEAR SPACING NOT LESS THAN FOUR TIMES BAR DIAMETER

BAR SIZE	MINIMUM CLEAR COVER (INCH)	MINIMUM SPACING CENTER/CENTER (INCH)	CLASS B LAP NOT A TOP BAR (INCH)	CLASS B LAP TOP BAR (INCH)	CLASS A LAP NOT A TOP BAR (INCH)	CLASS A LAP TOP BAR (INCH)
#4	1	2 1/2	22	28	17	22
#5	1 1/4	3 1/8	27	35	21	27
#6	1 1/2	3 3/4	32	42	25	32
#7	1 3/4	4 3/8	38	49	29	38
#8	2	5	43	56	33	43
#9	2 1/4	5 5/8	49	63	37	49
#10	2 1/2	6 1/4	55	71	42	55
#11	2 3/4	6 7/8	61	79	47	61

BAR LAP LENGTHS, UNCOATED BARS
CLEAR COVER NOT LESS THAN BAR DIAMETER
CLEAR SPACING NOT LESS THAN TWO TIMES BAR DIAMETER

BAR SIZE	MINIMUM CLEAR COVER (INCH)	MINIMUM SPACING CENTER/CENTER (INCH)	CLASS B LAP NOT A TOP BAR (INCH)	CLASS B LAP TOP BAR (INCH)	CLASS A LAP NOT A TOP BAR (INCH)	CLASS A LAP TOP BAR (INCH)
#4	1/2	1 1/2	29	37	22	29
#5	5/8	1 7/8	36	46	28	36
#6	3/4	2 1/4	43	56	33	43
#7	7/8	2 5/8	62	81	48	62
#8	1	3	71	93	55	71
#9	1 1/8	3 3/8	80	105	62	80
#10	1 1/4	3 3/4	90	118	70	90
#11	1 3/8	4 1/8	100	131	78	100

NOTES FOR SCHEDULE:

1. TOP BARS ARE DEFINED AS HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE DEVELOPMENT LENGTH OR SPLICE.
2. USE CLASS B LAP SPLICES, UNLESS NOTED OTHERWISE.
3. FOR COVER AND SPACING DIMENSIONS WHICH ARE IN BETWEEN THE TABULATED VALUES, DO NOT INTERPOLATE, INSTEAD USE THE LONGER LAP LENGTH. SEE CONCRETE COVER SCHEDULE.
4. CALCULATE CENTER TO CENTER SPACING DIMENSIONS OF BARS AT SPLICE LOCATIONS.
5. FOR EPOXY COATED BARS MODIFY THE TABULATED LAP LENGTHS AS FOLLOWS:
   A. FOR TOP BARS AND BARS WHICH ARE NOT A TOP BAR WITH A CLEAR COVER OF GREATER THAN OR EQUAL TO 3 TIMES THE BAR DIAMETER AND CLEAR SPACING GREATER THAN OR EQUAL TO 6 TIMES THE BAR DIAMETER, MULTIPLY THE ABULATED LENGTH BY 1.2.
   B. FOR BARS WHICH ARE NOT A TOP BAR, WITH A CLEAR COVER LESS THAN 3 TIMES THE BAR DIAMETER AND CLEAR SPACING LESS THAN 6 TIMES THE BAR DIAMETER, MULTIPLY THE TABULATED LENGTH BY 1.5.
   C. FOR TOP BARS, WITH A CLEAR COVER LESS THAN 3 TIMES THE BAR DIAMETER AND CLEAR SPACING LESS THAN 6 TIMES THE BAR DIAMETER, MULTIPLY THE TABULATED LENGTH FOR TOP BARS BY 1.3.

SLAB ON GRADE NOTES

1. SUBGRADE BELOW SLAB ON GRADE SHALL BE REVIEWED AND ACCEPTED BY GEOTECHNICAL ENGINEER BEFORE CONCRETE SLAB PLACEMENT.
2. PROVIDE PROTECTION FROM PRECIPITATION AND EXCESSIVE COLD TEMPERATURES FOR THE VAPOR RETARDER AND SLAB SUBBASE PRIOR TO SLAB-ON-GRADE PLACEMENT. SUBBASE MUST BE DRY AND NOT FROZEN AT THE TIME OF SLAB PLACEMENT.
3. DO NOT PLACE SLABS ON FROZEN GROUND. IF SUBGRADE OR SUBBASE ARE FROZEN AFTER PREPARATION, THEY SHALL BE THAWED THEN RECOMPACTED AND RETESTED FOR COMPACTION PRIOR TO SLAB PLACEMENT, AT THE EXPENSE OF THE CONTRACTOR.
4. PROVIDE PROTECTION FOR THE SLAB ON GRADE FROM DIRECT EXPOSURE TO THE SUN, WIND, PRECIPITATION, AND EXCESSIVE COLD OR HOT TEMPERATURES STARTING DURING PLACEMENT AND LASTING UNTIL THE END OF THE CURING PERIOD. DO NOT ALLOW GROUND BENEATH SLABS TO FREEZE.
5. PRIOR TO SLAB PLACEMENT, SUBMIT FOR INFORMATION ONLY A WRITTEN PROTECTION PROGRAM FOR THE VAPOR RETARDER, SLAB SUBBASE, AND SLAB ON GRADE.
6. SLAB JOINTS ARE REQUIRED WHERE SHOWN ON PLAN. WHERE JOINTS ARE NOT SHOWN, SEE "OPTION FOR SLAB PLACEMENT" IN DIVISION 3 SPECIFICATIONS. SUBMIT JOINT LAYOUT TO THE ENGINEER FOR REVIEW.
7. PROVIDE A SQUARE EDGE FORM JOINT FOR CONSTRUCTION JOINTS AND A SAW-CUT JOINT FOR CONTRACTION JOINTS IN SLABS ON GRADE. CONTINUE 50 PERCENT OF SLAB REINFORCEMENT THROUGH CONSTRUCTION AND CONTRACTION JOINTS.
8. REINFORCE SLABS AS NOTED ON DRAWINGS. AT PERIMETER OF SLABS, LOCATE REINFORCING 3 INCHES FROM SLAB EDGES.
9. PROVIDE ONE #4 BAR, 4 FEET LONG, DIAGONAL AT CORNERS AND OPENINGS IN SLABS ON GRADE.
10. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DETAILS OF DEPRESSED SLABS.
11. VERIFY SIZE AND LOCATION OF PLATFORMS, CURBS, OR PADS WITH MECHANICAL CONTRACTOR.
12. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

NEW YORK STATE OF OPPORTUNITY. | DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THE DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Ferris Ferry Road, Ledyard, NY 12195
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:
GENERAL NOTES

60 % SUBMISSION

Drawn By:	Checked By:	Date:
CGM	SMK	21 JAN 2016

Seal & Signature
NOT FOR CONSTRUCTION
1/21/2016
8:00:07 AM

DASNY Project No
328250

Drawing Number
S001

1/21/2016 8:00:07 AM

MASONRY NOTES

1. MASONRY WALLS SHALL HAVE STANDARD WEIGHT JOINT REINFORCEMENT EVERY SECOND COURSE AND TOP TWO COURSES UNLESS NOTED OTHERWISE. PROVIDE LADDER TYPE JOINT REINFORCING FOR REINFORCED MASONRY WALLS. LAP SPLICE JOINT REINFORCEMENT A MINIMUM OF 6 INCHES, TYPICAL. USE PREFABRICATED CORNERS AND TEES.

2. BEARING AND OTHER EXTERIOR WALLS MADE OF BRICK AND BLOCK SHALL BE BUILT SIMULTANEOUSLY AS COMPOSITE WALLS, BONDED TOGETHER WITH FULL-WIDTH HORIZONTAL JOINT REINFORCEMENT 16 INCHES ON CENTER. FILL COLLAR JOINTS SOLID WITH MORTAR.

3. SUBMIT PROPOSED GROUTING PROGRAM FOR GROUTING CONCRETE MASONRY WALLS. GROUTING SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF NCMA-TEK 3-2A, "GROUTING CONCRETE MASONRY WALLS." STOP GROUT 2 INCHES BELOW TOP OF BLOCK AT EACH POUR TO ENABLE AN INTERLOCK WITH NEXT POUR. GROUT CORES SOLID AT REINFORCING BARS AND AS INDICATED IN DRAWINGS.

4. REINFORCE WALLS WITH #5 AT 40 INCHES ON CENTER. SEE ___/___ FOR ELEVATION OF MASONRY WALL REINFORCING. LAP #4 BARS 20 INCHES. LAP #5 BARS 25 INCHES. LAP #6 BARS 30 INCHES.

5. FILL CORES IN HOLLOW CONCRETE MASONRY UNITS WITH GROUT THREE COURSES (24 INCHES) UNDER BEARING PLATES, BEAMS, LINTELS, POSTS, AND SIMILAR ITEMS UNLESS OTHERWISE INDICATED.

6. PROVIDE BOND BEAM AT TOPS OF WALLS, AT EACH FLOOR, AND ELSEWHERE AS DETAILED.

7. FILL COLUMN AND BEAM POCKETS WITH MASONRY AFTER COLUMN OR BEAM IS ERECTED.

8. STRUCTURAL DRAWINGS DO NOT SHOW FLASHINGS, WEEPS, OR DRIPS; HOWEVER, THEY ARE ESSENTIAL TO MAINTAINING THE WATERTIGHTNESS OF THE BUILDING AND PROTECTION OF THE FRAMING. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR DETAILS AND INFORMATION.

9. VENEER ANCHORS, TIES, WEEPS, AND FLASHING ARE INDICATED IN THE ARCHITECTURAL DRAWINGS AND IN THE SPECIFICATIONS UNLESS DETAILED OR NOTED OTHERWISE.

MASONRY REINFORCEMENT LAP SPLICE SCHEDULE

BAR LAP LENGTHS IN CMU WITH f'm = 2,000 psi

LOCATION	#4	#5	#6
(1) BAR AT CENTER OF 6" CMU CORE OR BOND BEAM	18"	28"	53"
(1) BAR AT CENTER OF 8" CMU CORE OR BOND BEAM	18"	22"	38"
(1) BAR AT CENTER OF 12" CMU CORE OR BOND BEAM	18"	22"	34"
(2) BARS IN 8" CMU CORE LOCATED 5" FROM EACH FACE SHELL	24"	39"	79"
(2) BARS IN 12" CMU CORE LOCATED 9" FROM EACH FACE SHELL	19"	30"	57"
(2) BARS IN 8", 10", 12" CMU BOND BEAM (SEE NOTE BELOW)	22"	35"	64"

NOTE:
LOCATE REINFORCING BARS 3/4-INCH CLEAR FROM INSIDE FACE OF FACE SHELL
(EXCEPT CENTER REINFORCING IN BOND BEAMS DETAILED TO HAVE ONLY ONE BAR).

LINTEL NOTES

1. COORDINATE WALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. NOT ALL OPENINGS ARE SHOWN IN THE STRUCTURAL DRAWINGS.

2. FOR OPENINGS NOT OTHERWISE DETAILED OR SCHEDULED, INCLUDING DOORS, WINDOWS, AND MECHANICAL OPENINGS, MINIMUM LINTELS SHALL BE (FOR EACH 4 INCHES OF MASONRY WIDTH) ONE L3 1/2X3 1/2X 5/16 FOR SPANS UP TO 4 FEET; ONE L4 X 3 1/2X 5/16 (LLV) FOR SPANS UP TO 6 FEET; ONE L5X3 1/2X5/16 (LLV) FOR SPANS UP TO 8 FEET. FOR SPANS LESS THAN 2 FEET, PROVIDE A 5/16-INCH PLATE.

   FOR 6-INCH MASONRY WALLS, USE TWO L3 1/2X2 1/2X 5/16 (LLV) FOR SPANS UP TO 4 FEET, AND A BUILT-UP PLATE SECTION FOR SPANS UP TO 8 FEET. BUILT-UP SECTION SHALL CONSIST OF A HORIZONTAL PLATE 5/16 INCH BY 5 INCHES AND A VERTICAL PLATE 1/2 INCH BY 5 INCHES WELDED TOGETHER WITH 3/16-INCH FILLET WELDS, 3 INCHES LONG AND 6 INCHES ON CENTER ON EACH SIDE OF THE VERTICAL PLATE, TO FORM AN INVERTED TEE.

   FOR 10-INCH MASONRY WALLS, USE TWO L5X5X5/16 FOR SPANS UP TO 6 FEET AND TWO L6X6X5/16 FOR SPANS UP TO 8 FEET. TRIM HORIZONTAL LEG ON EACH ANGLE TO 4 1/2 INCHES WIDE.

3. FOR OPENINGS NOT OTHERWISE DETAILED OR SCHEDULED IN 4-INCH-THICK VENEER, INCLUDING DOORS, WINDOWS, AND MECHANICAL OPENINGS, MINIMUM LINTELS SHALL BE ONE L4X4X5/16 FOR SPANS UP TO 6 FEET AND ONE L6X4X5/16 (LLV) FOR SPANS UP TO 8 FEET. FOR SPANS LESS THAN 2 FEET, PROVIDE A 5/16-INCH PLATE.

4. WELD TOGETHER BACK TO BACK LINTELS. MAXIMUM WELD SPACING SHALL NOT EXCEED 18 INCHES ON CENTER.

5. BEAR LINTELS A MINIMUM OF 8 INCHES EACH END UNLESS NOTED OTHERWISE.

6. HOT-DIP GALVANIZE LINTELS IN EXTERIOR WALLS.

7. COAT LINTELS IN EXTERIOR WALLS WITH A COLD-GALVANIZING PAINT.

HOT WEATHER MASONRY CONSTRUCTION REQUIREMENTS

	CONSTRUCTION - BASED UPON AMBIENT TEMPERATURES	PROTECTION - BASED UPON ANTICIPATED MEAN DAILY TEMPERATURES
BELOW 90°F	1. NORMAL MASONRY PROCEDURES.	1. NORMAL MASONRY PROCEDURES.
90°F - 105°F	1. MAINTAIN SAND PILES IN A DAMP, LOOSE CONDITION. 2. PROVIDE NECESSARY CONDITIONS AND EQUIPMENT TO PRODUCE MORTAR HAVING A TEMPERATURE BELOW 120°F (48.9°C). 3. MAINTAIN TEMPERATURE OF MORTAR AND GROUT BELOW 120°F (48.9°C). 4. FLUSH MIXER, MORTAR TRANSPORT CONTAINER, AND MORTAR BOARDS WITH COOL WATER BEFORE THEY COME INTO CONTACT WITH MORTAR INGREDIENTS OR MORTAR. 5. MAINTAIN MORTAR CONSISTENCY BY RETEMPERING WITH COOL WATER. 6. USE MORTAR WITHIN 2 HOURS OF INITIAL MIXING.	1. FOG SPRAY NEWLY CONSTRUCTED MASONRY UNTIL DAMP, AT LEAST THREE TIMES A DAY UNTIL THE MASONRY IS THREE DAYS OLD.
ABOVE 105°F	1. MAINTAIN SAND PILES IN A DAMP, LOOSE CONDITION. 2. PROVIDE NECESSARY CONDITIONS AND EQUIPMENT TO PRODUCE MORTAR HAVING A TEMPERATURE BELOW 120°F (48.9°C). 3. SHADE MATERIALS AND MIXING EQUIPMENT FROM DIRECT SUNLIGHT. 4. USE COOL MIXING WATER FOR MORTAR AND GROUT. ICE IS PERMITTED IN THE MIXING WATER PRIOR TO USE. DO NOT PERMIT ICE IN THE MIXING WATER WHEN ADDED TO THE OTHER MORTAR OR GROUT MATERIALS.	

COLD WEATHER MASONRY CONSTRUCTION REQUIREMENTS

	CONSTRUCTION - BASED UPON AMBIENT TEMPERATURES	PROTECTION - BASED UPON ANTICIPATED MINIMUM DAILY TEMPERATURES
ABOVE 40°F	1. NORMAL MASONRY PROCEDURES.	1. NORMAL MASONRY PROCEDURES.
40°F - 32°F	1. HEAT MORTAR SAND OR MIXING WATER TO PRODUCE MORTAR TEMPERATURE BETWEEN 40°F AND 120°F AT TIME OF MIXING. MAINTAIN MORTAR ABOVE 40°F UNTIL USED IN MASONRY. 2. KEEP GROUT AGGREGATES ABOVE 32°F.	1. COVER TOP 2 FEET OF UNFINISHED MASONRY WORK WITH A WATER-RESISTIVE MEMBRANE FOR AT LEAST 24 HOURS AND AT THE END OF EACH DAY'S WORK.
32°F - 25°F	1. HEAT MORTAR SAND AND MIXING WATER TO PRODUCE MORTAR TEMPERATURE BETWEEN 40°F AND 120°F AT TIME OF MIXING. MAINTAIN MORTAR ABOVE 40°F UNTIL USED IN MASONRY. 2. HEAT GROUT AGGREGATES AND MIXING WATER TO PRODUCE GROUT TEMPERATURE BETWEEN 70°F AND 120°F AT TIME OF MIXING. 3. MAINTAIN GROUT TEMPERATURES ABOVE 70°F AT TIME OF PLACEMENT.	1. COVER TOP 2 FEET OF UNFINISHED MASONRY WORK WITH A WATER-RESISTIVE MEMBRANE FOR AT LEAST 24 HOURS AND AT THE END OF EACH DAY'S WORK.
25°F - 20°F	1. HEAT MORTAR SAND AND MIXING WATER TO PRODUCE MORTAR TEMPERATURE BETWEEN 40°F AND 120°F AT TIME OF MIXING. MAINTAIN MORTAR ABOVE 40°F UNTIL USED IN MASONRY. 2. HEAT GROUT AGGREGATES AND MIXING WATER TO PRODUCE GROUT TEMPERATURE BETWEEN 70°F AND 120°F AT TIME OF MIXING. 3. MAINTAIN GROUT TEMPERATURES ABOVE 70°F AT TIME OF PLACEMENT. 4. HEAT MASONRY SURFACES UNDER CONSTRUCTION TO 40°F, AND USE WIND BREAKS OR ENCLOSURES WHEN WIND VELOCITY EXCEEDS 15 MPH. 5. HEAT MASONRY TO A MINIMUM OF 40°F PRIOR TO GROUTING.	1. COVER NEWLY CONSTRUCTED MASONRY (LESS THAN 48 HOURS OLD) COMPLETELY WITH WEATHER-RESISTIVE INSULATING BLANKETS, OR EQUAL PROTECTION, FOR AT LEAST 48 HOURS AFTER CONSTRUCTION OF WORK.
Below 20°F	1. HEAT MORTAR SAND AND MIXING WATER TO PRODUCE MORTAR TEMPERATURE BETWEEN 40°F AND 120°F AT TIME OF MIXING. MAINTAIN MORTAR ABOVE 40°F UNTIL USED IN MASONRY. 2. HEAT GROUT AGGREGATES AND MIXING WATER TO PRODUCE GROUT TEMPERATURE BETWEEN 70°F AND 120°F AT TIME OF MIXING. 3. MAINTAIN GROUT TEMPERATURES ABOVE 70°F AT TIME OF PLACEMENT. 4. HEAT MASONRY SURFACES UNDER CONSTRUCTION TO 40°F, AND USE WIND BREAKS OR ENCLOSURES WHEN WIND VELOCITY EXCEEDS 15 MPH. 5. HEAT MASONRY TO A MINIMUM OF 40°F PRIOR TO GROUTING. 6. PROVIDE AN ENCLOSURE AND AUXILIARY HEAT TO MAINTAIN AIR TEMPERATURE ABOVE 40°F IN ENCLOSURE.	1. COVER NEWLY CONSTRUCTED MASONRY (LESS THAN 48 HOURS OLD) COMPLETELY WITH WEATHER-RESISTIVE INSULATING BLANKETS, OR EQUAL PROTECTION, FOR AT LEAST 48 HOURS AFTER CONSTRUCTION OF WORK. 2. MAINTAIN NEWLY CONSTRUCTED MASONRY (LESS THAN 48 HOURS OLD) ABOVE 32°F FOR AT LEAST 48 HOURS AFTER BEING CONSTRUCTED USING HEATED ENCLOSURES OR OTHER ACCEPTABLE METHODS. 3. PROVIDE HIGH-LOW RECORDING THERMOMETERS TO DOCUMENT TEMPERATURES OF MASONRY.

NOTES:
1. DO NOT LAY MASONRY UNITS HAVING EITHER A TEMPERATURE BELOW 40°F OR CONTAINING FROZEN MOISTURE, VISIBLE ICE, OR SNOW ON THEIR SURFACE.
2. REMOVE VISIBLE ICE AND SNOW FROM THE TOP SURFACE OF EXISTING FOUNDATIONS AND MASONRY TO RECEIVE NEW CONSTRUCTION. HEAT THESE SURFACES ABOVE FREEZING USING METHODS THAT DO NOT RESULT IN DAMAGE.
3. DO NOT LAY GLASS UNIT MASONRY WHEN THE AMBIENT TEMPERATURE IS BELOW 40°F.

STRUCTURAL STEEL NOTES

1. DO NOT BEGIN STEEL ERECTION UNTIL SUPPORTING MASONRY OR CONCRETE OBTAINS 75 PERCENT OF THE MATERIAL STRENGTHS NOTED IN DESIGN DATA NOTES.

2. LOCATE ROOFTOP MECHANICAL UNITS AS SHOWN; COORDINATE WITH MECHANICAL DRAWINGS. NOTIFY ENGINEER IF ACTUAL UNIT WEIGHTS EXCEED THE WEIGHTS SHOWN ON DRAWINGS.

3. ELEVATIONS GIVEN THUS _____ ARE TO TOP OF STRUCTURAL STEEL MEMBERS WITH REFERENCE TO THE FINISHED FLOOR (0' 0") = _____.

4. WHERE BEAM SPACING IS NOT NOTED, SPACE BEAMS EQUALLY BETWEEN COLUMNS OR BETWEEN COLUMNS AND WALLS.

5. CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW BY ENGINEER. USE MINIMUM OF FOUR 3/4 INCH-DIAMETER A325 BOLTS.

6. DO NOT PLACE HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.

7. WHERE COLUMNS BEAR ON STEEL BEAMS, PROVIDE BEAMS WITH TWO 3/8-INCH-THICK STIFFENER PLATES THE FULL WIDTH AND DEPTH OF BEAM AND IN LINE WITH COLUMN FLANGES ON EACH SIDE OF BEAM.

8. STEEL BEAMS BEARING ON MASONRY SHALL HAVE A MINIMUM OF 6 INCHES OF BEARING. PROVIDE BEARING PLATES WITH WALL ANCHORS UNLESS NOTED OTHERWISE.

9. ANCHOR STEEL MEMBERS TO MASONRY WALLS.

10. BEAMS ENCASED IN CONCRETE SHALL HAVE A MINIMUM 2-INCH CONCRETE COVER AND SHALL BE WRAPPED WITH #9 WIRE AT 4 INCHES ON CENTER.

11. WHERE CMU BACKUP RUNS PAST STEEL BEAMS, WELD MASONRY ANCHORS TO BEAM WEBS 4 FEET ON CENTER UNLESS NOTED OTHERWISE. WHERE MASONRY VENEER RUNS PAST STEEL BEAMS, WELD MASONRY ANCHORS TO BEAM WEBS 16 INCHES ON CENTER UNLESS NOTED OTHERWISE.

12. FRAMING WHICH IS TO MEET AISC CODE OF STANDARD PRACTICE, SECTION 10, "ARCHITECTURALLY EXPOSED STRUCTURAL STEEL" IS NOTED "AESS" ON THE DRAWINGS.

13. WHERE FILLET WELD SIZES ARE NOT SPECIFICALLY NOTED, THE FABRICATOR SHALL DETAIL A MINIMUM SIZE FILLET WELD IN ACCORDANCE WITH AWS STANDARDS. THE ACTUAL SIZES SHALL BE SHOWN ON THE SHOP DRAWINGS.

14. BACKER BARS AT COMPLETE JOINT PENETRATION WELDS MUST BE REMOVED IF ARE IS GREATER THAN 3 OR IF STEEL IS AESS.

15. WHERE DETAILS SHOW CONTINUOUS PLATES OR ANGLES ATTACHED TO BEAMS, EXTEND THE PLATES OR ANGLES PAST COLUMNS. MITER AND WELD AT EXTERIOR CORNERS OR PROVIDE ADDITIONAL SUPPORT ON THE COLUMNS. DETAIL PLATES OR ANGLES TO PROVIDE 2-INCH GAP AT INTERIOR CORNERS AND AT COLUMNS OTHER THAN AT EXTERIOR CORNERS.

16. PROVIDE HOT DIP GALVANIZED FASTENERS FOR GALVANIZED FRAMING CONNECTIONS AND STAINLESS STEEL FASTENERS FOR STAINLESS STEEL FRAMING CONNECTIONS.

17. GALVANIZING WHERE NOTED IN THE DRAWINGS SHALL BE HOT-DIP GALVANIZING IN ACCORDANCE WITH ASTM A123, UNLESS NOTED OTHERWISE.

COLUMN NOTES

1. PROVIDE A 1/4-INCH-THICK LEVELING PLATE 2 INCHES LARGER THAN THE BASE PLATE IN EACH DIRECTION, 3/4 INCH OF GROUT, AND FOUR 3/4-INCH-DIAMETER BY 1-FOOT-4-INCH-LONG HEADED ANCHOR RODS FOR COLUMNS UNLESS DETAILED OTHERWISE.

2. COAT COLUMN BASES AND ANCHOR RODS THAT ARE IN CONTACT WITH SOIL BELOW SLAB ON GRADE WITH COAL-TAR EPOXY BEFORE CONCRETING. EXTEND COATING 1 INCH INTO SLAB CONCRETE.

3. WHERE ROOF BEAMS FRAME INTO EXTERIOR COLUMNS, WELD A 1/4-INCH-THICK ANGLE OR BENT PLATE TO TOP OF COLUMN TO FORM A BEARING SURFACE FOR ROOF DECK. PROJECT ANGLE OR BENT PLATE VERTICALLY ABOVE THE COLUMN AND HORIZONTALLY TO THE EDGE OF DECK AS REQUIRED. USE 3/8-INCH-THICK ANGLE OR BENT PLATE FOR PROJECTIONS EXCEEDING 6 INCHES (HORIZONTAL OR VERTICAL).

4. PROVIDE COLUMNS WITH 1/2-INCH-THICK CAP PLATES UNLESS DETAILED OTHERWISE.

5. WELD MASONRY ANCHORS 16 INCHES ON CENTER TO COLUMN WEBS AND FLANGES THAT ABUT MASONRY. WELD ANCHORS 16 INCHES ON CENTER TO EACH SIDE OF WEB OF COLUMNS COMPLETELY EMBEDDED IN MASONRY.

STEEL JOIST NOTES

1. WHERE JOIST SPACING IS NOT NOTED ON PLAN, SPACE JOISTS EQUALLY BETWEEN COLUMNS OR BETWEEN COLUMNS AND WALLS.

2. STEEL JOISTS BEARING ON MASONRY SHALL HAVE A MINIMUM OF 4 INCHES OF BEARING. PROVIDE BEARING PLATES WITH WALL ANCHORS UNLESS OTHERWISE NOTED.

3A. * INDICATES AN EXTENDED JOIST BOTTOM CHORD FIELD WELDED TO BEAM BOTTOM FLANGE OR COLUMN. PROVIDE EXTENDED BOTTOM CHORD CONNECTION TO RESIST A 5-KIP FORCE.

3B. * INDICATES AN EXTENDED JOIST BOTTOM CHORD; EXTEND BOTTOM CHORD AND SECURE TO WALL WITH MASONRY WALL ANCHORS.

4. IF THE DISTANCE BETWEEN BEAM BOTTOM FLANGE OR COLUMN AND JOIST BOTTOM CHORD IS MORE THAN 3 INCHES, PROVIDE AN L1X1X1/8 WELDED BETWEEN JOIST AND BEAM FLANGE OR COLUMN AS NEEDED FOR CEILING SUPPORT. COORDINATE WIT ARCHITECTURAL DRAWINGS.

5. LOCATE CONCENTRATED LOADS ON JOISTS AND JOIST GIRDERS AT PANEL POINTS. PROVIDE ANGLE WEB MEMBERS TO CREATE INTERMEDIATE PANEL POINTS AS REQUIRED BY DETAIL ___/_____ .

6. VERIFY SIZE, LOCATION, AND NUMBER OF ROOF OPENINGS; AND SIZE, LOCATION, WEIGHT, AND NUMBER OF MECHANICAL UNITS WITH HVAC CONTRACTOR. NOTIFY ENGINEER IF ACTUAL UNIT WEIGHTS EXCEED THE WEIGHTS SHOWN ON DRAWINGS.

7. PROVIDE BRIDGING ANCHORS FIRMLY ANCHORED TO MASONRY WALLS, BEAMS, AND COLUMNS AT EACH END OF EACH ROW OF BRIDGING, TOP AND BOTTOM.

8. PROVIDE UPLIFT BRIDGING AS REQUIRED BY JOIST MANUFACTURER AND AT FIRST PANEL POINT. DESIGN JOISTS AND BRIDGING FOR NET WIND UPLIFT NOTED ON THE DRAWINGS (OR A MINIMUM OF 5 psf IF NOT NOTED).

9. INSTALL JOISTS WITHIN A HORIZONTAL SWEEP TOLERANCE OF 1/4 INCH IN 10 FEET.

10. USE OF "X"-BRIDGING FOR FLOOR AREAS IS INTENTIONAL AND ABSOLUTELY ESSENTIAL. RANDOMLY STAGGER BRIDGING.

STRUCTURAL OBSERVATION NOTES

1. THE REGISTERED DESIGN PROFESSIONAL WILL MAKE VISITS TO THE SITE AT APPROPRIATE INTERVALS FOR THE PURPOSE OF OBSERVING THE CONSTRUCTION FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE FOLLOWING LIST INCLUDES SOME APPROPRIATE TIMES FOR VISITING THE SITE. THE CONTRACTOR SHALL NOTIFY THE REGISTERED DESIGN PROFESSIONAL AT LEAST 48 HOURS PRIOR TO PERFORMING THESE ACTIVITIES SO THAT SITE VISITS CAN BE SCHEDULED.
   - INITIAL PLACEMENT OF REINFORCING BARS FOR FOOTINGS, FOUNDATION WALLS, AND PIERS (AFTER EXCAVATION AND PRIOR TO THE CLOSING OF FORMS).
   - INITIAL ERECTION OF STRUCTURAL STEEL AND METAL DECK
   - SLAB PRE-CONSTRUCTION MEETING (SEE DIVISION 3 SPECIFICATIONS.)
   - INITIAL PLACEMENT OF REINFORCING BARS AND PREPARATIONS FOR SLAB ON GRADE (INCLUDING VAPOR RETARDER AND SUBBASE).
   - CONSTRUCTION OF THE MASONRY SAMPLE PANEL. CONTRACTOR SHALL NOTIFY ARCHITECT AND ENGINEER SO THAT ONE OR BOTH CAN BE PRESENT TO OBSERVE THE CONSTRUCTION OF THE PANEL. REVIEW OF THE SAMPLE PANEL AFTER IT HAS BEEN CONSTRUCTED IS NOT ACCEPTABLE.
   - INITIAL PLACEMENT OF REINFORCING BARS AND GROUTING OF CONCRETE MASONRY WALLS.
   - COMPLETION OF THE MAIN LATERAL FORCE RESISTING SYSTEM.
   - COMPLETION OF THE STRUCTURAL SYSTEM.
   - OTHER TIMES AS REQUIRED DUE TO FIELD CONDITIONS OR SPECIAL CONSTRUCTION TYPES.
2. THE REGISTERED DESIGN PROFESSIONAL MAY VISIT THE SITE AT TIMES OTHER THAN THOSE LISTED IN NOTE 1.
3. THE REGISTERED DESIGN PROFESSIONAL WILL PREPARE A FIELD OBSERVATION REPORT FOR EACH SITE VISIT MADE TO OBSERVE CONSTRUCTION. PART II OF EACH REPORT IS FOR CONTRACTOR VERIFICATION AND IS MANDATORY. PART II MUST BE COMPLETED (SIGNED BY THE CONTRACTOR VERIFYING THAT THE REQUIRED ACTION WAS TAKEN AND LISTING THE DATE COMPLETED) AND RETURNED TO THE ENGINEER IN A TIMELY MANNER.
4. STRUCTURAL OBSERVATION REQUIREMENTS FOR THE SEISMIC/WIND-FORCE-RESISTING SYSTEM ARE INDICATED IN THE SCHEDULE OF SPECIAL INSPECTIONS, AND ARE TO BE PERFORMED BY THE SPECIAL INSPECTOR OR A DESIGNATED REGISTERED PROFESSIONAL ENGINEER.

SPECIAL INSPECTION NOTES

1. THE OWNER WILL ENGAGE THE SERVICES OF A QUALIFIED SPECIAL INSPECTOR FOR THIS PROJECT, WHO WILL PROVIDE AND/OR COORDINATE INSPECTION AND TESTING REQUIREMENTS AS NECESSARY IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 17 OF THE BCNYS.

2. THE REGISTERED DESIGN PROFESSIONAL HAS PREPARED A STATEMENT OF SPECIAL INSPECTIONS, WHICH INCLUDES SPECIFICATION 014533, AND THE SCHEDULE OF SPECIAL INSPECTIONS INCLUDING SPECIAL INSPECTIONS FOR SEISMIC/WIND RESISTANCE. THESE DOCUMENTS WILL BE SUBMITTED WITH THE CONTRACT DOCUMENTS AND THE APPLICATION FOR BUILDING PERMIT TO THE CODE ENFORCEMENT OFFICIAL. A COPY OF THE SCHEDULE OF SPECIAL INSPECTIONS IS INCLUDED ON DRAWING S003.

3. SPECIAL INSPECTIONS AND TESTING SHALL BE CONTINUOUS OR PERIODIC DURING THE PERFORMANCE OF THE WORK, AS NOTED.

4. THE CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING WITH THE REGISTERED DESIGN PROFESSIONAL, SPECIAL INSPECTOR, TESTING AGENCY, AND AFFECTED SUB-CONTRACTORS TO REVIEW THE REQUIRED SPECIAL INSPECTION AND TESTING REQUIREMENTS FOR THE PROJECT. THE CONTRACTOR SHALL DISTRIBUTE CONSTRUCTION SCHEDULES TO EACH ATTENDEE.

5. THE SPECIAL INSPECTOR SHALL SUBMIT INTERIM REPORTS AND, AT THE COMPLETION OF SPECIAL INSPECTIONS, A FINAL STATEMENT OF SPECIAL INSPECTIONS. REPORTS SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER.

6. THE SPECIAL INSPECTOR SHALL NOTIFY THE CONTRACTOR IMMEDIATELY OF DISCREPANCIES. SUBSEQUENT REPORTS SHALL NOTE WHEN AND HOW DEFICIENCIES WERE CORRECTED. THE SPECIAL INSPECTOR SHALL NOTIFY THE REGISTERED DESIGN PROFESSIONAL AND THE CODE ENFORCEMENT OFFICIAL OF DISCREPANCIES WHICH HAVE NOT BEEN CORRECTED.

7. THE CONTRACTOR SHALL COOPERATE WITH THE SPECIAL INSPECTOR INCLUDING ADVANCE NOTIFICATION OF REQUIRED INSPECTION OR TEST, INCIDENTAL LABOR, AND SAFE ACCESS TO THE WORK AREAS, AND ACCESS TO CONTRACT DOCUMENTS SO THAT INSPECTIONS AND TESTING MAY BE PERFORMED WITHOUT HINDRANCE.

8. THE SPECIAL INSPECTION PROGRAM SHALL IN NO WAY RELIEVE THE CONTRACTOR OF THE OBLIGATION TO PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS OR FROM IMPLEMENTING AN EFFECTIVE QUALITY CONTROL PROGRAM.

9. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

10. SPECIAL INSPECTION REQUIREMENTS NOTED ABOVE PERTAIN TO THE CONSTRUCTION OF THE FOUNDATION SYSTEM ONLY. REQUIREMENTS FOR THE SUPERSTRUCTURE WILL BE PROVIDED BY THE REGISTERED DESIGN PROFESSIONAL FOR THE SUPERSTRUCTURE.

SPECIAL INSPECTION AND STRUCTURAL OBSERVATION FOR SEISMIC/WIND RESISTANCE NOTES

1. SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS FOR THE SEISMIC/WIND-FORCE-RESISTING SYSTEM ARE INDICATED IN THE SCHEDULE OF SPECIAL INSPECTIONS ON DRAWING S003.

2. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE SEISMIC/WIND-FORCE-RESISTING SYSTEM SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY. REFER TO SECTION SECTION 1706 OF THE BCNYS AND SPECIFICATION SECTION (01410) 014533 FOR ADDITIONAL INFORMATION.

3. THE SPECIAL INSPECTOR OR DESIGNATED REGISTERED DESIGN PROFESSIONAL WILL MAKE STRUCTURAL OBSERVATIONS OF THE SEISMIC/WIND-FORCE-RESISTING SYSTEM AS INDICATED IN THE STRUCTURAL OBSERVATION NOTES. EACH COMPONENT OF THE SEISMIC/WIND-FORCE-RESISTING SYSTEM SHALL REMAIN EXPOSED AND ACCESSIBLE FOR OBSERVATIONS UNTIL SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS ARE COMPLETE. ADDITIONAL WORK REQUIRED TO CORRECT NON-CONFORMING CONSTRUCTION (IF ANY) IDENTIFIED DURING SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS SHALL BE AT NO COST TO THE OWNER.

4. SPECIAL INSPECTION AND STRUCTURAL OBSERVATION REQUIREMENTS ASSOCIATED WITH THE SEISMIC/WIND-FORCE-RESISTING SYSTEM PERTAIN TO THE CONSTRUCTION OF THE FOUNDATION SYSTEM ONLY. REQUIREMENTS FOR THE SUPERSTRUCTURE WILL BE PROVIDED BY THE REGISTERED DESIGN PROFESSIONAL FOR THE SUPERSTRUCTURE.

NEW YORK STATE OF OPPORTUNITY. | DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THE DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:
GENERAL NOTES CONTINUED

60 % SUBMISSION

Drawn By:	Checked By:	Date:
CGM	SMK	21 JAN 2016

Seal & Signature
NOT FOR CONSTRUCTION
1/21/2016
8:00:18 AM

DASNY Project No
328250

Drawing Number
S002

1/21/2016 8:00:18 AM

SCHEDULE OF SPECIAL INSPECTIONS

THE FOLLOWING IS A SUMMARY OF THE INSPECTIONS AND TESTING REQUIRED FOR THIS PROJECT. ADDITIONAL INFORMATION CAN BE FOUND IN SPECIFICATION SECTION (01410) 014533. THE CONSTRUCTION DIVISIONS WHICH REQUIRE SPECIAL INSPECTIONS ARE AS FOLLOWS:

- ■ SOILS AND FOUNDATIONS
- ■ CAST-IN-PLACE CONCRETE
- ■ MASONRY
- ■ STRUCTURAL STEEL
- ☐ COLD-FORMED METAL FRAMING
- ☐ WOOD FRAMING AND TRUSSES
- ☐ MASONRY VENEERS AND ARCHITECTURAL WALL PANELS
- ☐ SPRAY FIRE-RESISTANT MATERIAL
- ☐ MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
- ☐ EXTERIOR INSULATION AND FINISH SYSTEM
- ☐ SMOKE CONTROL
- ☐ MECHANICAL SYSTEMS
- ☐ SPECIAL CASES

INSPECTION AGENTS	FIRM	ADDRESS/PHONE
1. SPECIAL INSPECTOR _____ P.E.		
2. GEOTECHNICAL ENGINEER/ INSPECTOR		
3. TESTING/INSPECTING AGENCY		

1. THE QUALIFICATIONS OF ALL PERSONNEL PERFORMING SPECIAL INSPECTION ACTIVITIES ARE SUBJECT TO THE APPROVAL OF THE CODE ENFORCEMENT OFFICIAL. THE CREDENTIALS OF INSPECTORS AND TESTING TECHNICIANS SHALL BE PROVIDED IF REQUESTED.
2. THE INSPECTION AND TESTING AGENT SHALL BE ENGAGED BY THE OWNER OR THE OWNER'S REPRESENTATIVE, NOT BY THE CONTRACTOR OR SUBCONTRACTOR PERFORMING THE WORK. ANY CONFLICT OF INTEREST MUST BE DISCLOSED TO THE CODE ENFORCEMENT OFFICIAL PRIOR TO COMMENCING WORK.
3. THE SPECIAL INSPECTOR SHALL BE A PROFESSIONAL ENGINEER EXPERIENCED IN THE DESIGN OF BUILDINGS AND REGISTERED IN THE STATE OF NEW YORK. MINIMUM QUALIFICATIONS OF THE TESTING AGENTS ARE INDICATED ON THE SCHEDULE.

KEY OF MINIMUM QUALIFICATIONS OF INSPECTION AGENTS (MQIA)	
PE	NEW YORK STATE REGISTERED PROFESSIONAL ENGINEER
RDP	NEW YORK STATE REGISTERED DESIGN PROFESSIONAL ENGINEER
EIT	ENGINEER IN TRAINING - INTERN ENGINEER
ACI-CCI	AMERICAN CONCRETE INSTITUTE CERTIFIED CONCRETE CONSTRUCTION INSPECTOR
ACI-CFTT	AMERICAN CONCRETE INSTITUTE CERTIFIED CONCRETE FIELD TESTING TECHNICIAN - GRADE 1
ICC-RCSI	ICC REINFORCED CONCRETE SPECIAL INSPECTOR
ICC-RCC	ICC REINFORCED CONCRETE CERTIFICATION
ICC-SMC	ICC STRUCTURAL MASONRY CERTIFICATION
ICC-SSWC	ICC STRUCTURAL STEEL AND WELDING CERTIFICATION
AWS-CWI	AMERICAN WELDING SOCIETY CERTIFIED WELDING INSPECTOR
ICC-SAFC	ICC SPRAY-APPLIED FIREPROOFING CERTIFICATION
ASNT	AMERICAN SOCIETY OF NON-DESTRUCTIVE TESTING - LEVEL II OR III
ICC-PCC	ICC PRESTRESSED CONCRETE CERTIFICATION

CATEGORY	MINIMUM QUALIFICATIONS
A. EXCAVATION AND FILLING VERIFICATION OF SOILS PILES AND DRILLED PIERS MODULAR RETAINING WALLS	1. CURRENT LEVEL II CERTIFICATION IN GEOTECHNICAL ENGINEERING TECHNOLOGY/CONSTRUCTION FROM THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) 2. EIT OR PE WITH RELEVANT EXPERIENCE
B. REINFORCED CONCRETE	1. CURRENT ICC-RCSI OR ACI-CCI 2. ACI-CFTT 3. EIT OR PE WITH RELEVANT EXPERIENCE
C. PRESTRESSED CONCRETE	1. CURRENT ICC-RCC OR ICC-PCC 2. ACI-CFTT WITH ONE YEAR OF RELEVANT EXPERIENCE 3. EIT OR PE WITH RELEVANT EXPERIENCE 4. CURRENT POST-TENSIONING INSTITUTE (PTI) CERTIFICATION
D. MASONRY	1. CURRENT ICC-SMC AND ONE YEAR RELEVANT EXPERIENCE 2. EIT OR PE WITH RELEVANT EXPERIENCE
E. WELDING	1. CURRENT AWS-CWI 2. CURRENT ICC-SSWC AND ONE YEAR RELEVANT EXPERIENCE 3. EIT OR PE WITH RELEVANT EXPERIENCE 4. CURRENT LEVEL II ASNT 5. CURRENT LEVEL III ASNT, BUT ONLY IF ALSO LEVEL II
F. HIGH-STRENGTH BOLTING AND STEEL FRAME INSPECTION	1. CURRENT ICC-SSWC AND ONE YEAR RELEVANT EXPERIENCE 2. EIT OR PE WITH RELEVANT EXPERIENCE
G. INSPECTION OF FABRICATORS	1. PRECAST: CURRENT ICC-RCC AND ONE YEAR OF RELEVANT EXPERIENCE 2. BAR JOISTS: SEE WELDING REQUIREMENTS 3. METAL BUILDINGS: SEE WELDING REQUIREMENTS 4. STRUCTURAL STEEL: SEE WELDING REQUIREMENTS
H. COLD-FORMED METAL FRAMING	1. QUALIFIED PERSON WITH ONE YEAR OF RELEVANT EXPERIENCE 2. EIT OR PE WITH RELEVANT EXPERIENCE
I. WOOD FRAMING AND TRUSSES	1. QUALIFIED PERSON WITH ONE YEAR OF RELEVANT EXPERIENCE 2. EIT OR PE WITH RELEVANT EXPERIENCE
J. EXTERIOR AND INTERIOR ARCHITECTURAL WALL PANELS	1. MASONRY VENEERS: SEE MASONRY QUALIFICATIONS 2. EIT OR PE WITH RELEVANT EXPERIENCE
K. SPRAYED FIRE-RESISTANT MATERIALS	1. CURRENT ICC-SAFC AND ONE YEAR OF RELEVANT EXPERIENCE 2. EIT OR PE WITH RELEVANT EXPERIENCE
L. EXTERIOR INSULATION AND FINISH SYSTEM	1. EIT OR PE WITH RELEVANT EXPERIENCE
M. SMOKE CONTROL	1. RDP RESPONSIBLE FOR DESIGN
N. MECHANICAL SYSTEMS	1. RDP RESPONSIBLE FOR DESIGN
O. SEISMIC RESISTANCE	1. SEE APPLICABLE CATEGORIES IN THIS TABLE

SPECIAL INSPECTION, STRUCTURAL TESTING, AND STRUCTURAL OBSERVATION FOR SEISMIC/WIND RESISTANCE

THE COMPONENTS OF THE SEISMIC/WIND-FORCE-RESISTING SYSTEM REQUIRING SPECIAL INSPECTIONS, STRUCTURAL TESTING, AND OBSERVATIONS IN ACCORDANCE WITH CHAPTER 17 OF THE BCNYS ARE NOTED BELOW. STRUCTURAL OBSERVATIONS SHALL BE PERFORMED BY THE SPECIAL INSPECTOR OR A DESIGNATED REGISTERED PROFESSIONAL ENGINEER.

FOUNDATIONS AND CONCRETE

1. REINFORCING STEEL FOR FOOTINGS, FOUNDATION WALLS, BASEMENT WALLS, PIERS, AND GRADE BEAMS LOCATED AT BRACED OR MOMENT FRAMES OR SHEAR WALLS.
2. CONCRETE OR MASONRY SHEAR WALL DOWELS EMBEDDED IN FOUNDATIONS.
3. ANCHOR RODS AT BRACED OR MOMENT FRAME COLUMNS AND ANCHOR RODS FOR HOLDOWN ANCHORS AT CFMF OR WOOD SHEAR WALLS.
4. REINFORCING STEEL FOR CONCRETE FLOOR AND ROOF SLABS INCLUDING SPECIAL REINFORCING FOR CONNECTION TO THE SEISMIC/WIND-FORCE-RESISTING SYSTEM.

MASONRY

1. LOCATION AND SPACING OF VERTICAL AND HORIZONTAL REINFORCING (INCLUDING HORIZONTAL JOINT REINFORCING) AT REINFORCED MASONRY SHEAR WALLS AS NOTED ON THE PLANS AND DRAWING _____.
2. CONNECTION OF MASONRY SHEAR WALLS TO FLOOR AND ROOF DIAPHRAGMS.
3. GROUTING OF MASONRY SHEAR WALLS.

STRUCTURAL STEEL

1. STRUCTURAL STEEL BRACED FRAMES AND MOMENT FRAMES, INCLUDING BRACING MEMBERS, BEAMS, COLUMNS, AND CONNECTIONS AS NOTED ON THE PLANS AND DRAWING _____.
2. STRUCTURAL STEEL BEAMS WITH AXIAL LOAD AND OTHER LOAD COLLECTING ELEMENTS WHERE INDICATED ON THE PLANS, AND DETAILS, INCLUDING CONNECTIONS.
3. METAL FLOOR AND ROOF DECK INCLUDING DECK WELDS TO BEAMS AND SIDE LAP FASTENERS, AND STUD SHEAR CONNECTORS FOR COMPOSITE SLABS OR EMBEDDED PLATES.

WIND SPECIFIC

1. ROOF CLADDING CONNECTIONS.
2. FABRICATION AND INSTALLATION OF SYSTEMS OR COMPONENTS REQUIRED TO RESIST IMPACT.

MECHANICAL AND ELECTRICAL

MECHANICAL AND ELECTRICAL COMPONENT INSTALLATION AND ANCHORAGE.

SOILS AND FOUNDATIONS

VERIFICATION/INSPECTION	AGENT NO.	MQIA	CONT.	PERIODIC	REFERENCED STANDARD
1. VERIFY SITE PREPARATION IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL EVALUATION:					
A. IDENTIFY SOILS REQUIRING UNDERCUTTING AND REPLACING WHILE OBSERVING PROOF ROLLING AND WHEN SUBGRADE IS EXPOSED.	2	A.2	X	-	
B. VERIFY FOOTING BEARING STRATA.	2	A.2	-	X	
C. REVIEW AND ACCEPT FILL MATERIALS.	2	A.2	-	X	
D. OBSERVE AND ACCEPT BACKFILLING AND COMPACTION PROCEDURES.	2	A.2	X	-	
E. OBSERVE AND ACCEPT PREPARATION OF SLAB SUBGRADE AND SUBBASE.	2	A.1, A.2	X	-	
F. VERIFY USE OF FILL MATERIAL AND LIFT THICKNESS IN FIELD.	2 OR 3	A.1, A.2	-	-	
2. COMPACTION AND MOISTURE CONTENT TESTING:	3	A.1	-	X	ASTM D 1557 ASTM D 6938
A. ONE TEST OF SUBGRADE FOR EACH SPREAD FOOTING AND EACH 20-FOOT LENGTH OF STRIP FOOTING.					
B. ONE TEST OF SUBGRADE AND SUBBASE FOR EACH 2000 SF OF SLAB-ON-GRADE, BUT NOT LESS THAN 4 TESTS.					
C. ONE TEST OF EACH LIFT OF FILL MATERIALS FOR EACH 2000 SF OF BUILDING AREA, BUT NOT LESS THAN 4 TESTS.					

CAST-IN-PLACE CONCRETE

VERIFICATION/INSPECTION	AGENT NO.	MQIA	CONT.	PERIODIC	REFERENCED STANDARD
1. INSPECT REINFORCING STEEL AND PLACEMENT:	1	B.1, B.3 O.1	X	-	
A. FOOTINGS, FOUNDATIONS WALLS, AND PIERS.			-	X 50%	
B. SLABS ON GRADE.			-	X 50%	
2. INSPECT EMBEDDED BOLTS AND ANCHOR RODS PRIOR TO PLACEMENT OF CONCRETE:	1	B.1, B.3 O.1			
A. AT COLUMN BASE PLATES, AND ELSEWHERE WHERE RODS ARE SUBJECT TO SHEAR OR TENSION.			-	X 50%	
B. AT COLUMNS IN BRACED FRAMES AND MOMENT FRAMES.			-	X 100%	
3. VERIFY USE OF REQUIRED DESIGN MIX.	3	B.2	X	-	
4. SAMPLE AND TEST FRESH CONCRETE: A. TAKE SIX STANDARD CYLINDERS FOR EACH 50 CUBIC YARDS OF CONCRETE OR EACH 5000 SF OF SLAB AREA FOR EACH CLASS OF CONCRETE.	3	B.2	X	-	ASTM C 172 ASTM C 31 ASTM C 94
B. RECORD TIME CONCRETE IS BATCHED, TIME CONCRETE IS SAMPLED, AND TIME THE TRUCK IS EMPTY.					
C. PERFORM ONE SLUMP TEST FOR EACH TRUCK; TWO IF THE CONCRETE IS PUMPED.					ASTM C 143
D. MEASURE AIR CONTENT FOR EACH TRUCK.					ASTM C 231 ASTM C 173
E. RECORD CONCRETE AND AMBIENT AIR TEMPERATURE.					
F. RECORD UNIT WEIGHT OF CONCRETE.					ASTM C 138 ASTM C 567 ASTM C 39
G. PERFORM COMPRESSIVE STRENGTH TESTS.					
5. INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	3	B.1, B.2	X	-	ACI 318 5.9, 5.10
6. INSPECT FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	3	B.1, B.2	-	X	ACI 318 5.11-5.13
7. INSPECT AND TEST CONCRETE SLABS ON GRADE AND METAL DECK:	3	B.1, B.2			
A. FLOOR FLATNESS AND LEVELNESS.			-	X 50%	ASTM E 1155
B. MOISTURE VAPOR EMISSION AND ALKALINITY. PERFORM 4 TESTS FOR EACH 2000 SF OF FLOOR AREA AND MINIMUM OF 4 TESTS IN EACH AREA OF THE BUILDING WHERE ADHERED FLOOR FINISHES ARE BEING APPLIED.			X	-	ASTM F 1869 ASTM F 710
8. INSPECT WELDING OF REINFORCING STEEL. A. REFER TO STRUCTURAL STEEL SCHEDULE.	3	E.1, E.2	-	X 100%	AWS D1.4

MASONRY (LEVEL 1)

VERIFICATION/INSPECTION	AGENT NO.	MQIA	CONT.	PERIODIC	REFERENCED STANDARD
1. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
A. PROPORTIONS OF SITE-PREPARED MORTAR. FIRST FIVE DAYS OF MASONRY CONSTRUCTION AND ONCE FOR EVERY 2,500 SF OF WALL AFTER THAT.	1 OR 3	D.1, D.2	-	X	ACI 530.1 ART. 2.6A ASTM C780 ASTM C270 ASTM C1586
B. LOCATION OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS. FIRST THREE DAYS OF MASONRY CONSTRUCTION AND ONCE FOR EVERY 2,500 SF OF WALL AFTER THAT.	1	D.2	-	X	ACI 530.1 ART 3.3B
C. LOCATION OF REINFORCEMENT AND CONNECTORS.	1	D.2, O.1	-	X 50%	ACI 530.1 ART 3.4, 3.6A ACI 530 SEC 1.13
2. THE INSPECTION PROGRAM SHALL VERIFY:					
A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	1	D.2, O.1	-	X 50%	ACI 530.1 ART 3.3G
B. TYPE, SIZE, AND LOCATION OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.	1	D.2, O.1	-	X 50%	ACI 530 SEC 1.2.2(e), 2.1.4, 3.1.6
C. SPECIFIED SIZE, GRADE, AND TYPE OF REINFORCEMENT.	1	D.2, O.1	-	X 50%	ACI 530.1 ART 2.4, 3.4 ACI 530 SEC 1.13
D. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)	1	D.1, D.2	-	X	ACI 530.1 ART 1.8C, 1.8D
E. WELDING OF REINFORCING BARS.	3	E.1, E.2	X	-	ACI 530 SEC 2.1.10.7.2, SEC 3.3.3.4(b)
F. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE.	1 OR 3	D.1, D.2	-	X 50%	ACI 530.1 ART 3.6B
3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
A. GROUT SPACE IS CLEAN.	1	D.2, O.1	-	X	ACI 530.1:ART 3.2D
B. PLACEMENT OF REINFORCEMENT AND CONNECTORS.	1	D.2, O.1	-	X 50%	ACI 530.1:ART 3.4 AND 3.6A ACI 530: SEC 1.13
C. PROPORTIONS OF SITE-PREPARED GROUT. FIRST FIVE GROUTING OPERATIONS AND ONCE FOR EVERY 2,500 SF OF WALL AFTER THAT.	1 OR 3	D.1, D.2	-	X	ACI 530.1 ART. 2.6B ASTM C 476
4. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS.	1	D.1, D.2, O.1	X	-	ACI 530.1: ART. 3.5 ART 3.6.C
5. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS SHALL BE OBSERVED FOR EACH 5000 SF OF WALL.	3	D.1	X	-	ACI 530.1: ART. 1.4 ASTM C 780 ASTM C1019 ASTM C1314
6. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.	1	D.1, D.2	-	X	ACI 530.1: ART 1.5

STRUCTURAL STEEL, STEEL JOISTS, JOIST GIRDERS, AND METAL DECK

VERIFICATION/INSPECTION	AGENT NO.	MQIA	CONT.	PERIODIC	REFERENCED STANDARD
1. VERIFY FABRICATOR(S) MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES.	1 OR 3	G.2, G.3, G.4	-	X	AISC 360-10, CHAPTER N
2. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS:					
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	3	F.1	-	X 100%	
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE.	1 OR 3	F.1, F.2	-	X	APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC 360-10, A3.3
C. TEST 3 HIGH-STRENGTH BOLT ASSEMBLIES FROM EACH LOT FOR USE AT PRETENSIONED AND SLIP-CRITICAL JOINTS.	3	F.1	-	X	
3. INSPECTION OF HIGH-STRENGTH BOLTING:	3	F.1, O.1			AISC 360-10, N5.6
A. BEARING-TYPE CONNECTIONS.			-	X 100%	
B. SLIP-CRITICAL CONNECTIONS, INCLUDING PREPARATION OF THE FAYING SURFACES AND TIGHTENING.			X	-	
4. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND METAL DECK:					ASTM A 6 OR ASTM A 568 ASTM A 653
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	1 OR 3		-	X 100%	
B. MANUFACTURER'S CERTIFIED MILL TEST REPORTS REQUIRED.	1	F.2	-	X 100%	
5. PERFORM PULL-OUT TESTS ON DRILLED-IN, ADHESIVE, EXPANSION, AND SLEEVE ANCHORS:	3		-	X 100%	
A. TEST 10% OF EACH ANCHOR TYPE (MINIMUM OF 2) BY APPLYING A LOAD EQUAL TO 125% OF ALLOWABLE PULL-OUT STRENGTH.					
B. TEST 100% OF ANCHORS BY PULLING WITH A CLAW HAMMER USING THE WEIGHT OF ONE MAN.					
6. MATERIAL VERIFICATION OF WELD FILLER MATERIALS.					
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	3	E.1, E.2	X	-	AISC 360-10, A3.5
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	1 OR 3	E.1, E.2 E.3	X	-	
7. INSPECTION OF WELDING OF STRUCTURAL STEEL:	3	E.1, E.2, O.1			AISC 360-10, N5.4 AND N5.5 AWS D1.1
A. COMPLETE AND PARTIAL PENETRATION GROOVE WELDS. 100% VISUAL INSPECTION AND 50% MINIMUM ULTRASONIC TESTING. REFER TO SPECIFICATION SECTION 014533 FOR ADDITIONAL REQUIREMENTS.			X	X	ASTM E 587
B. FILLET WELDS. 100% VISUAL INSPECTION AND 10% MAGNETIC PARTICLE TESTING.			-	X	ASTM E 709
1. SINGLE PASS (5/16 OR LESS).			-	X	AWS D1.1
2. MULTIPASS (GREATER THAN 5/16).			X	-	
C. METAL DECK WELDS.				X 50%	AWS D1.3
D. SHEAR CONNECTOR WELDS. VERIFY FOR SHEAR CONNECTOR WELDS. AND TEST BY CONTRACTOR.				X	HAMMER TEST AISC 360-10, N6
8. INSPECTION OF WELDING OF REINFORCING STEEL:	3	E.1, E.2			AWS D1.4
A. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.			-	X	ACI 318 3.5.2
B. REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT.			X	-	
C. OTHER REINFORCING STEEL			-	X	
9. INSPECTION OF ERECTED STEEL FRAME: A. JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS. B. BRACED FRAMES. C. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	1 OR 3	F.1, F.2, O.1	-	X 100%	AISC 360-10, N5.7
10. INSPECT CONDITION OF ERECTED MATERIALS.	1 OR 3	F.1, F.2	-	X 100%	
11. VERIFY COLUMN PLUMBNESS AND SPLICES.	3	F.1	-	X 100%	
12. INSPECTION OF ERECTED METAL DECK: A. SIZE AND SPACING OF MECHANICAL FASTENERS INCLUDING SCREWS, POWDER-ACTUATED FASTENERS, AND PNEUMATICALLY-DRIVEN FASTENERS.	1 OR 3	F.1, F.2	-	X 100%	AISC 360-10, N6

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:
SCHEDULE OF SPECIAL INSPECTIONS

60 % SUBMISSION

Drawn By:	Checked By:	Date:
CGM	SMK	21 JAN 2016

Seal & Signature
NOT FOR CONSTRUCTION
1/21/2016
8:00:29 AM

DASNY Project No
328250
Drawing Number
S003

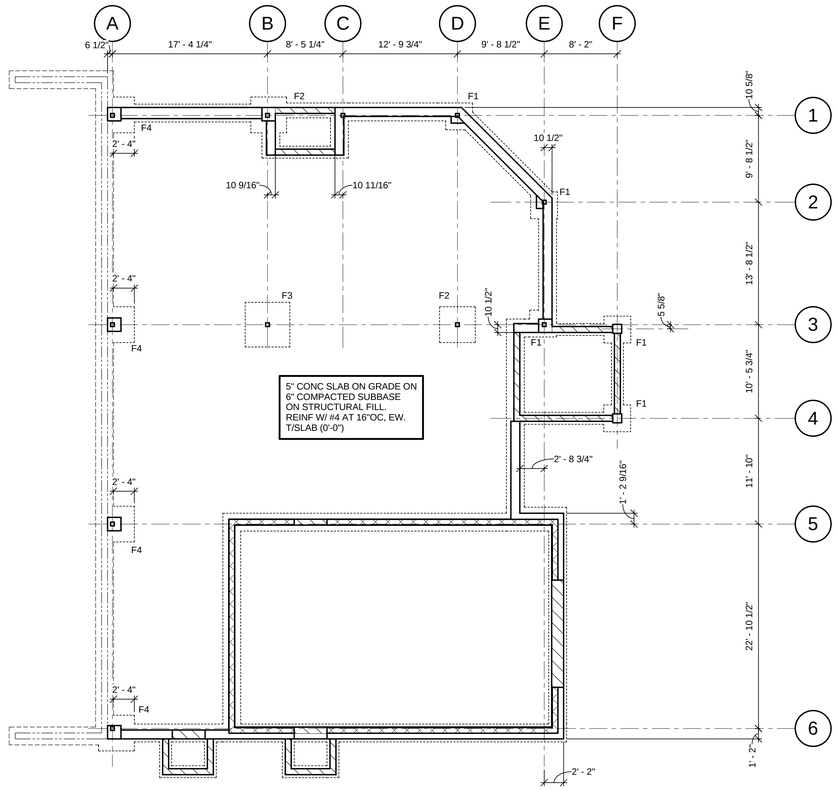
1/21/2016 8:00:29 AM

FOOTING SCHEDULE

MARK	SIZE	REINFORCING	REMARKS
F1	3'-0" x 3'-0" x 1'-0"	(3) #5 EW	
F2	4'-0" x 4'-0" x 1'-0"	(4) #5 BOTTOM EW	
F3	5'-0" x 5'-0" x 1-0"	(5) #5 BOTTOM EW	
F4	4'-0" x SEE PLAN x 1'-0"	(4) #5 BOTTOM EW	

FOUNDATION LEGEND

HI / LO	- INDICATES FOOTING STEP LOCATION AND T/FOOTING ELEVATIONS. SEE DETAIL __/S___.
HI / LO	- INDICATES T/SHELF STEP LOCATION AND ELEVATION.
HI / LO	- INDICATES T/WALL STEP LOCATION AND ELEVATION.
	- INDICATES SLAB STEP. SEE __/S___.
	- INDICATES SLAB OVERPOURS WALL. SEE FOUNDATION DETAILS AND COORDINATE WITH ARCHITECTURAL DRAWINGS.



FOUNDATION PLAN

SCALE: 1/8" = 1'-0"

FOUNDATION PLAN NOTES

1. T/SLAB ELEVATION ( ) EQUALS REFERENCE ELEVATION (0'-0").
2. ELEVATIONS NOTED THUS ( ) ARE WITH RESPECT TO (0'-0").
3. T/EXTERIOR FOOTING (-4'-0") TYPICAL UNLESS NOTED OTHERWISE, T/INTERIOR FOOTING (-1'- 0") TYPICAL UNLESS NOTED OTHERWISE. F_ - INDICATES FOOTING TYPE. SEE THIS DRAWING FOR FOOTING SCHEDULE.
4. T/WALL ELEVATION (0'-0") TYPICAL UNLESS NOTED OTHERWISE.
5. T/PIER ELEVATION (-0'-8") TYPICAL UNLESS NOTED OTHERWISE. P_ - INDICATES PIER TYPE. SEE S____ FOR PIER DETAILS.
6. FD_ - INDICATES FLOOR DRAIN. COORDINATE LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
7. WCJ - INDICATES WALL CONTROL OR CONSTRUCTION JOINT LOCATION; ALIGN WITH MASONRY WALL CONTROL JOINTS. COORDINATE LOCATIONS WITH ARCHITECTURAL DRAWINGS.
8. SEE ___/S____ FOR WALL REINFORCING AT CORNERS AND INTERSECTIONS.
9. SEE ___/S____ AND ___/S____ FOR SLAB-ON-GRADE CONSTRUCTION AND CONTRACTION JOINTS.
10. DRILL AND GROUT WALL AND FOOTING REINFORCING 6" INTO EXISTING FOUNDATIONS (TYPICAL, UNLESS NOTED OTHERWISE, FOR ALL LOCATIONS WHERE NEW FOUNDATIONS INTERFACE WITH EXISTING).
11. SLEEVE OPENINGS THROUGH WALLS AND SLABS AT PIPING AND CONDUIT; DO NOT CORE. COORDINATE SLEEVE SIZES, QUANTITIES, AND LOCATIONS WITH MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS. NOT ALL LOCATIONS ARE SHOWN ON THE STRUCTURAL DRAWINGS.
12. PROVIDE (1) #4x4'-0" LONG DIAGONAL BAR AT CORNERS AND OPENINGS IN SLABS ON GRADE.
13. SEE THIS DRAWING FOR FOUNDATION LEGEND.
14. SEE S001 AND S002 FOR ADDITIONAL NOTES.

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANY WAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:
FOUNDATION PLAN

60 % SUBMISSION

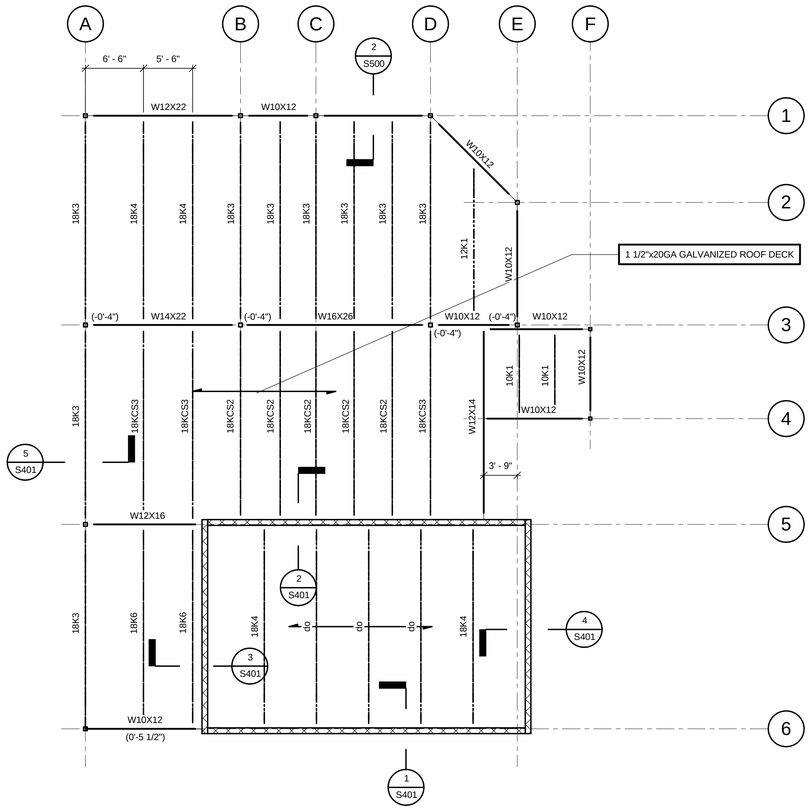
Drawn By:	Checked By:	Date:
JTH	SMK	21 JAN 2016

Seal & Signature
NOT FOR CONSTRUCTION
1/21/2016
8:00:49 AM

DASNY Project No
328250

Drawing Number
S100

1/21/2016 8:00:49 AM



ROOF FRAMING PLAN

SCALE: 1/8" = 1'-0"

ROOF FRAMING PLAN NOTES

1. T/STEEL (B/DECK) ELEVATION (+) ABOVE REFERENCE ELEVATION (0'-0") UNLESS NOTED OTHERWISE.
1a. T/STEEL (B/DECK) ELEVATION (+/-) TO MATCH T/EXISTING STEEL UNLESS NOTED OTHERWISE. FIELD VERIFY.
2. ELEVATIONS NOTED ( ) ARE TO T/STEEL (B/DECK) WITH RESPECT TO ELEVATION (+).
3. COLUMNS ARE HSS4X4X1/4 UNLESS NOTED OTHERWISE.
4. EQUALLY SPACE ROOF BEAMS BETWEEN COLUMNS UNLESS NOTED OTHERWISE.
5. BP_ - INDICATES COLUMN BASE PLATE. SEE S____ FOR DETAILS.
6. BF_ - INDICATES STEEL BRACED FRAME. SEE S____ FOR SCHEMATICS AND DETAILS.
7. SEE ___S____ FOR TYPICAL FRAMING CONNECTIONS TO HSS COLUMNS.
8. K-SERIES JOISTS HAVE A 2 1/2-INCH SEAT DEPTH.
9. LH AND DLH SERIES JOISTS HAVE A 5-INCH SEAT DEPTH UNLESS NOTED OTHERWISE.
10. EOD - INDICATES EDGE OF DECK.
11. SEE S____ FOR LINTEL SCHEDULE AND NOTES. NOT ALL LINTELS IN WALLS ARE SHOWN.
12. SEE ___S____ FOR MASONRY WALL REINFORCING REQUIREMENTS.
13. RD - INDICATES ROOF DRAIN, EF - INDICATES EXHAUST FAN, RV - INDICATES ROOF VENT. COORDINATE SIZE AND LOCATION WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE ROOF OPENING ANGLE FRAME AT ROOF DRAINS AND OTHER OPENINGS WIDER THAN 12 INCHES. SEE ___S____. REFER TO THE SPECIFICATIONS FOR DECK REINFORCEMENT REQUIREMENTS AT OPENINGS NOT SUPPORTED BY STEEL FRAMING.
14. NOTIFY ENGINEER IF ACTUAL WEIGHTS OF MECHANICAL UNITS EXCEED WEIGHTS NOTED ON PLAN. COORDINATE EXACT DIMENSIONS AND LOCATIONS WITH THE MECHANICAL DRAWINGS AND UNITS SUPPLIED.
15. INSTALL DECK AS SINGLE SPAN OR AS MULTIPLE SPAN WITH THE TOP HATS CUT AT THE JOIST CENTERLINE AS REQUIRED FOR DECK INSTALLATION AT END BAYS ONLY.
16. SEE THIS DRAWING FOR STEEL BEAM LEGEND.
17. SEE S001 AND S002 FOR ADDITIONAL NOTES.

NEW YORK STATE OF OPPORTUNITY. | DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANY WAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Ferris Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:
ROOF FRAMING PLAN

60 % SUBMISSION

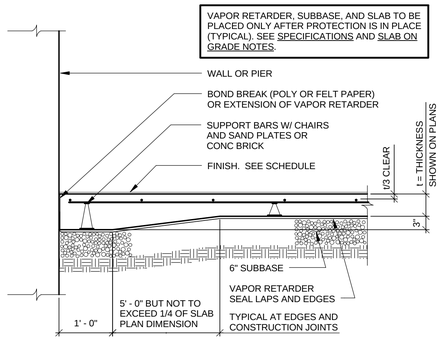
Drawn By:	Checked By:	Date:
JTH	SMK	21 JAN 2016

Seal & Signature
NOT FOR CONSTRUCTION
1/21/2016
8:00:58 AM

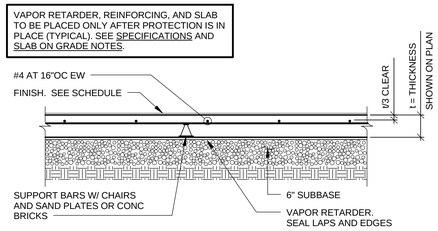
DASNY Project No
328250

Drawing Number
S101

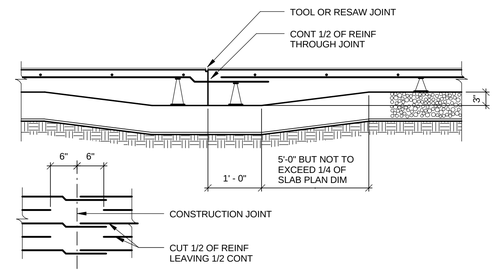
1/21/2016 8:00:58 AM



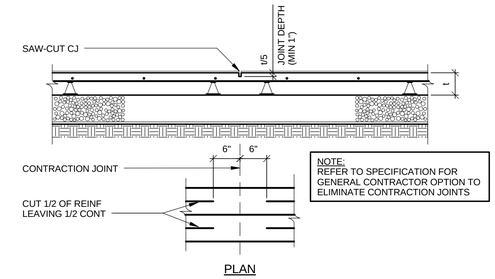
1 S300 SLAB ON GRADE TYPICAL EDGE SECTION
SCALE: 3/4" = 1'-0"



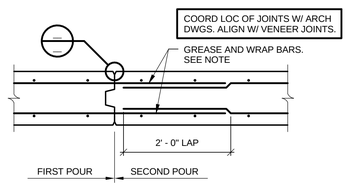
2 S300 SLAB ON GRADE TYPICAL SECTION
SCALE: 3/4" = 1'-0"



3 S300 SLAB ON GRADE TYPICAL CONSTRUCTION JOINT
SCALE: 3/4" = 1'-0"

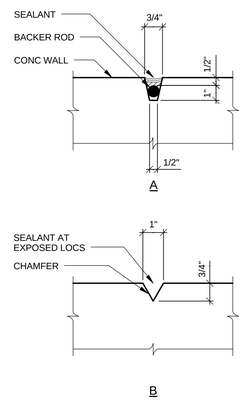


4 S300 SLAB ON GRADE TYPICAL CONTRACTION JOINT
SCALE: 3/4" = 1'-0"



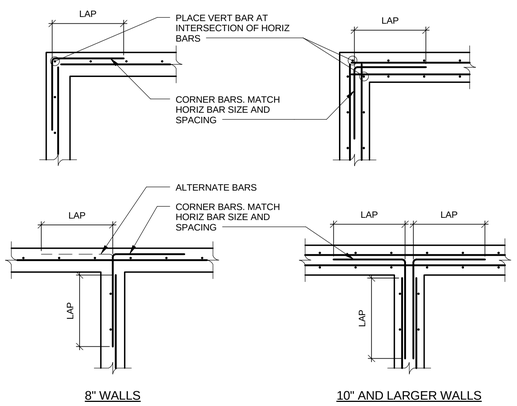
6 S300 WALL CONSTRUCTION JOINT
SCALE: 3/4" = 1'-0"

NOTE:
CONTRACTOR'S OPTION TO CAST PVC OR GALVANIZED STEEL CONDUIT SLEEVES INTO WALL IN LIEU OF "GREASE AND WRAP".



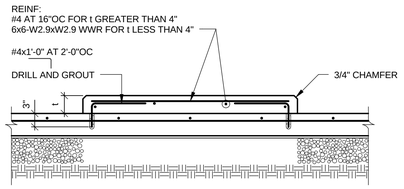
8 S300 WALL JOINT DETAIL
NOT TO SCALE

NOTES:
1. USE "A" AT WALLS GREATER THAN 12" THICK AND AT JOINTS WHICH ARE EXPOSED.
2. USE "B" AT WALLS WHICH ARE CONCEALED AND ARE 12" THICK OR LESS.
3. BACKER ROD AND SEALANT ARE ONLY REQUIRED AT EXPOSED LOCATIONS.



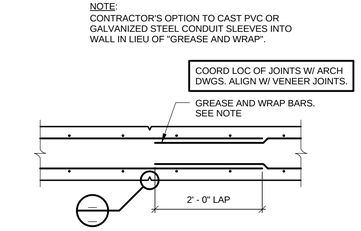
9 S300 TYPICAL WALL INTERSECTION REINFORCEMENT
SCALE: 1/2" = 1'-0"

NOTE:
LAPS ARE CLASS B, BUT NOT LESS THAN 2'-0".



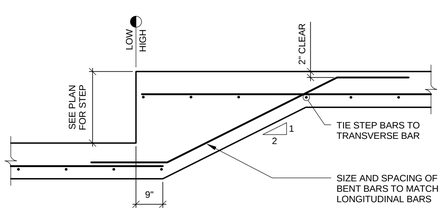
5 S300 HOUSEKEEPING PAD DETAIL
SCALE: 3/4" = 1'-0"

NOTE:
COORDINATE PAD THICKNESSES (t) AND LOCATIONS WITH ACCEPTED SHOP DRAWINGS AND SUBMITTALS.



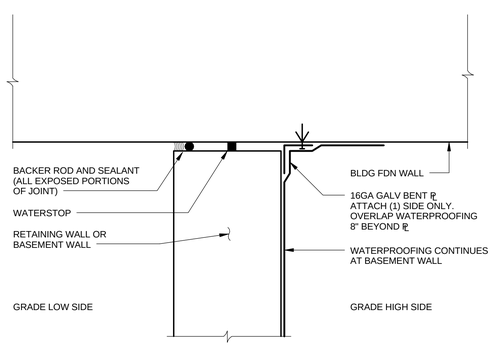
7 S300 WALL CONTROL JOINT
SCALE: 3/4" = 1'-0"

NOTE:
CONTRACTOR'S OPTION TO CAST PVC OR GALVANIZED STEEL CONDUIT SLEEVES INTO WALL IN LIEU OF "GREASE AND WRAP".

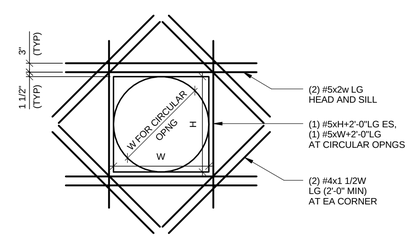


10 S300 TYPICAL FOOTING STEP DETAIL
SCALE: 1/2" = 1'-0"

NOTE:
LAPS ARE CLASS B, BUT NOT LESS THAN 2'-0".



11 S300 EXPANSION JOINT DETAIL
NOT TO SCALE



12 S300 REINFORCEMENT AT WALL OPENING
SCALE: 1/2" = 1'-0"

NOTES:
1. THIS DETAIL ONLY APPLIES TO WALLS WHERE OPENING INTERRUPTS A VERTICAL OR HORIZONTAL REINFORCING BARS.
2. LOCATE REINFORCEMENT WITH 1 1/2" CLEAR TO OPENING.
3. REINFORCEMENT SHOWN AT OPENING SHALL BE PROVIDED FOR EACH LAYER OF WALL REINFORCEMENT
4. PIPE CLUSTERS (MULTIPLE ADJACENT PIPES) ARE TO BE CONSIDERED AS ONE CONTINUOUS OPENING.

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THE DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Ferris Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:
FOUNDATION SECTIONS AND DETAILS

60 % SUBMISSION

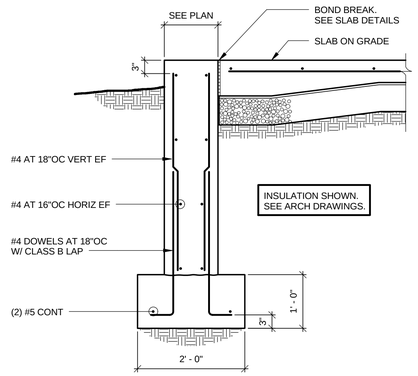
Drawn By:	Checked By:	Date:
CGM	SMK	21 JAN 2016

Seal & Signature
NOT FOR CONSTRUCTION
1/21/2016
8:01:20 AM

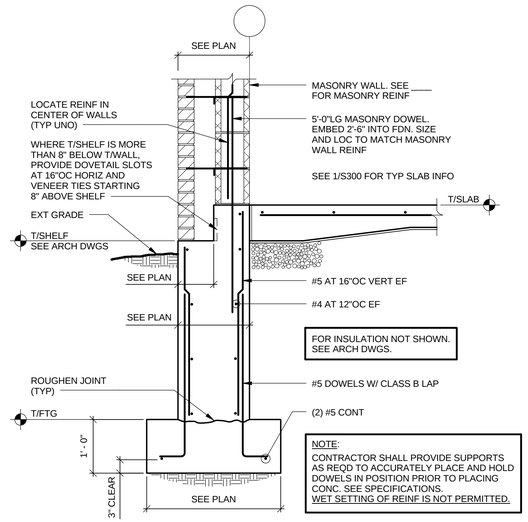
DASNY Project No
328250

Drawing Number
S300

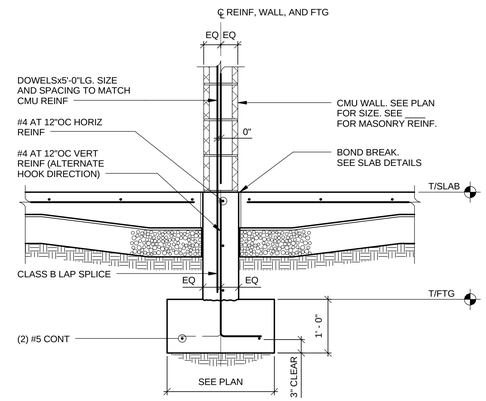
1/21/2016 8:01:20 AM



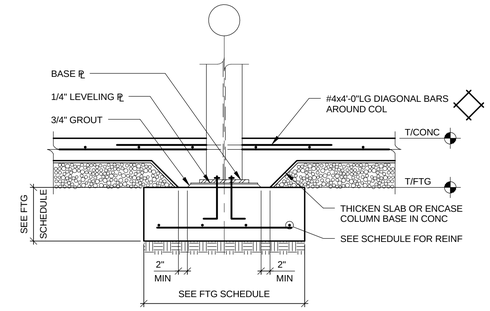
1 S301 FOUNDATION WALL SECTION
SCALE: 3/4" = 1'-0"



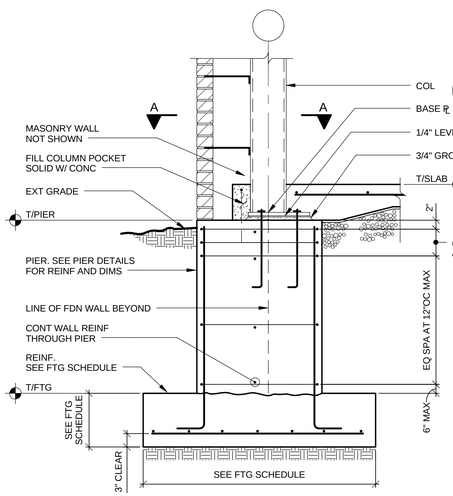
2 S301 FOUNDATION WALL SECTION
SCALE: 3/4" = 1'-0"



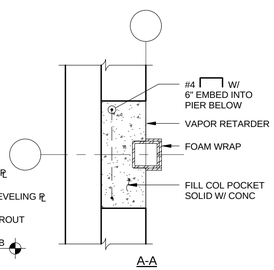
3 S301 FOUNDATION WALL SECTION
SCALE: 3/4" = 1'-0"

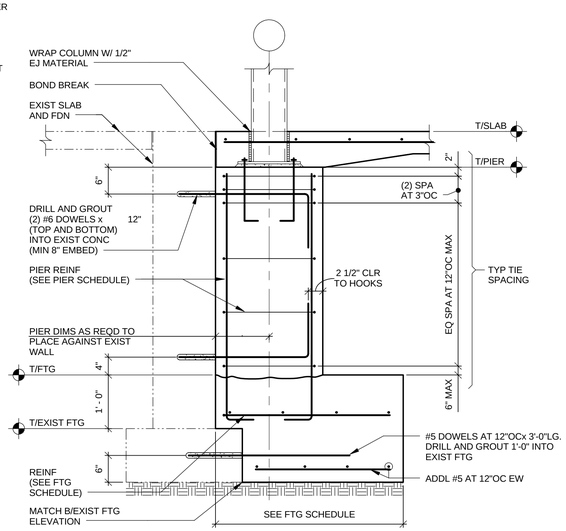


4 S301 SECTION AT INTERIOR FOOTING
SCALE: 3/4" = 1'-0"

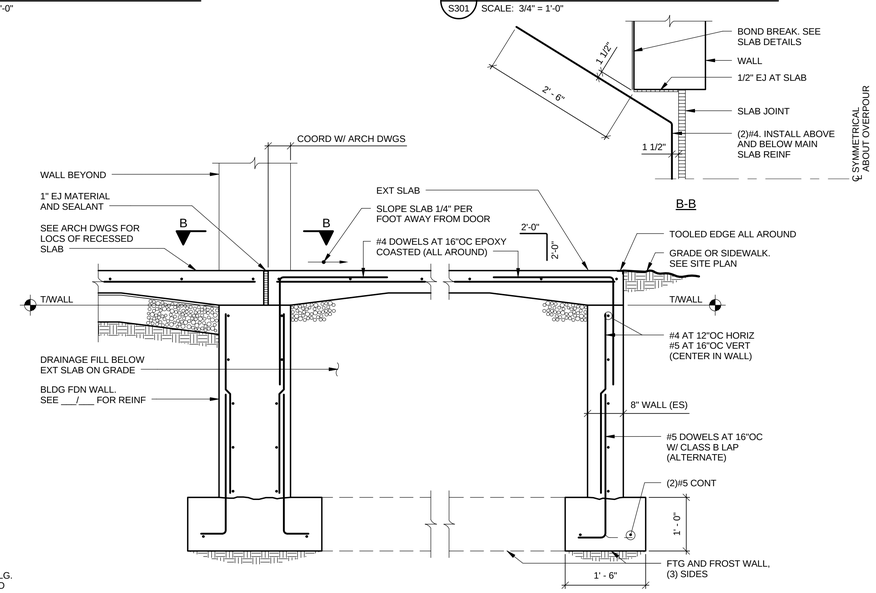


5 S301 SECTION AT EXTERIOR PIER
SCALE: 3/4" = 1'-0"



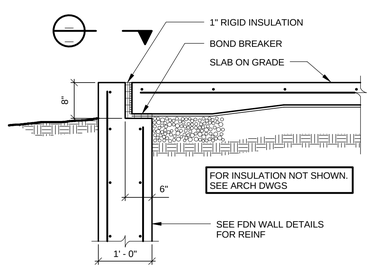


6 S301 SECTION AT PIER AT EXISTING WALL
SCALE: 3/4" = 1'-0"

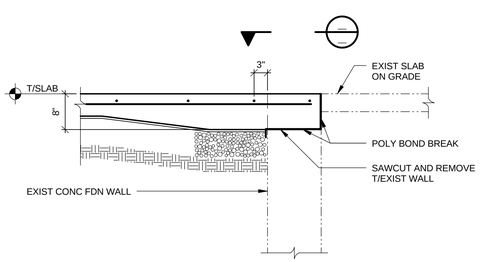


7 S301 TYPICAL SECTION AT DOOR WITH FROST WALLS
SCALE: 3/4" = 1'-0"

NOTE:
CONTRACTOR'S OPTION TO PLACE MAT FOOTING IN LIEU OF INDIVIDUAL WALL FOOTINGS. REINFORCE MAT WITH #5 AT 16"OC EACH WAY (BOTTOM) AND PROVIDE DRAIN HOLE AT CENTER OF MAT (6' Ø OR 6' SQUARE).



8 S301 TYPICAL SECTION AT DOORS
SCALE: 3/4" = 1'-0"



9 S301 SLAB OVERPOUR SECTION
SCALE: 3/4" = 1'-0"

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.
IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THE DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client
New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:
FOUNDATION SECTIONS AND DETAILS

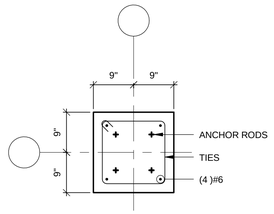
60 % SUBMISSION

Drawn By:	Checked By:	Date:
CGM	SMK	21 JAN 2016

Seal & Signature
NOT FOR CONSTRUCTION
1/21/2016
8:01:31 AM

DASNY Project No
328250
Drawing Number
S301

1/21/2016 8:01:31 AM



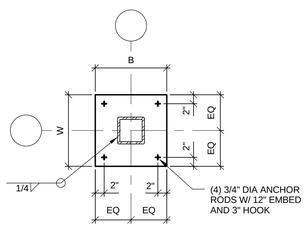
P1

1 / S302 PIER DETAILS

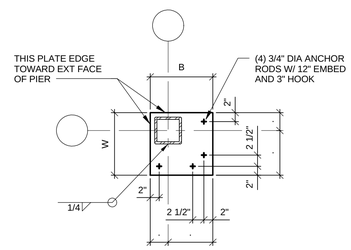
SCALE: 3/4" = 1'-0"

PIER NOTES:

1. TIES ARE #3, TYPICAL UNLESS NOTED OTHERWISE. STAGGER HOOK LOCATIONS ON ALTERNATE TIES.
2. SEE __/__, __/__, AND __/__ FOR TIE SPACING AND SECTIONS AT PIERS.
3. CONTINUE WALL REINFORCING THROUGH PIERS.
4. SEE __/__ FOR BASE PLATE DETAILS AND ANCHOR ROD INFORMATION. ALSO SEE BASE PLATE SCHEDULE.
5. WHERE VENEER SHELF IS HIGHER THAN TOP OF PIER, EXTEND PIER VERTICAL BARS TO 2 INCHES BELOW TOP OF SHELF.
6. WHERE VENEER SHELF IS LOWER THAN TOP OF PIER, BEND VERTICAL BARS AND PROVIDE TIES TO FIT THE REDUCED PLAN DIMENSION ABOVE THE SHELF.



BP1



BP2

2 / S302 BASE PLATE DETAILS

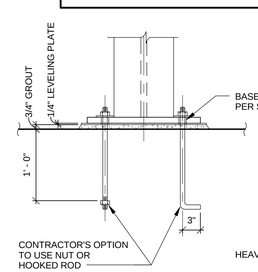
SCALE: 3/4" = 1'-0"

BASE PLATE SCHEDULE			
MARK	TYPE	THICKNESS	ANCHOR ROD MARK
BP1			AR__
BP2			AR__
BP3			AR__
BP4			AR__
BP5			AR__
BP6			AR__
BP7			AR__
BP8			AR__
BP9			AR__
BP10			AR__

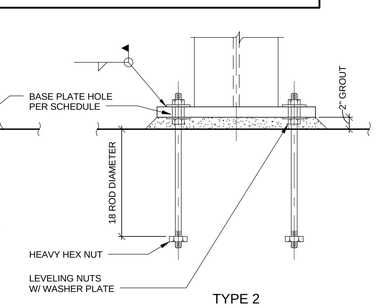
ANCHOR ROD SCHEDULE						
MARK	TYPE	ANCHOR ROD DIAMETER	GRADE	EMBED DEPTH	BASE PLATE HOLE DIAMETER	MINIMUM WASHER DIMENSIONS
AR1	1	3/4"	36	1'-0"	1 5/16"	1/4"x2"
AR2		7/8"			1 9/16"	5/16"x2 1/2"
AR3		1"			1 13/16"	3/8"x3"
AR4		1 1/4"			2 1/16"	1/2"x3"
AR5		1 1/2"			2 5/16"	1/2"x3 1/2"
AR6		1 3/4"			2 3/4"	5/8"x4"
AR7		2"			3 1/4"	3/4"x5"
AR8		2 1/2"			3 1/4"	7/8"x5 1/2"

NOTE:
PROVIDE ANCHOR RODS IN ACCORDANCE WITH ASTM F1554.

COLUMN BASE PLATE ANCHOR ROD HOLE AND PLATE WASHER SCHEDULE			
ANCHOR ROD DIAMETER	BASE PLATE HOLE DIAMETER	MINIMUM WASHER DIMENSIONS	MINIMUM WASHER THICKNESS
3/4"	1 5/16"	2"	1/4"
7/8"	1 9/16"	2 1/2"	5/16"
1"	1 13/16"	3"	3/8"
1 1/4"	2 1/16"	3"	1/2"
1 1/2"	2 5/16"	3 1/2"	1/2"
1 3/4"	2 3/4"	4"	5/8"
2"	3 1/4"	5"	3/4"
2 1/2"	3 1/4"	5 1/2"	7/8"
CIRCULAR OR SQUARE WASHERS MEETING THE SIZE SHOWN ARE ACCEPTABLE.			



TYPE 1

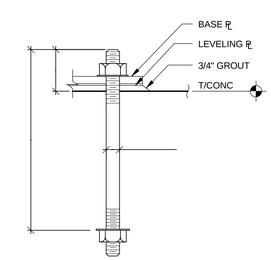


TYPE 2

3 / S302 COLUMN BASE DETAILS

NOT TO SCALE

NOTE:
HOOKED RODS MAY NOT BE USED AT BRACED FRAMES AND MOMENT FRAMES.



4 / S302 ANCHOR ROD

NOT TO SCALE

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THE DOCUMENT IN ANY WAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2013.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultanes

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

NY RISING COMMUNITIES

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:
PIER AND BASE PLATE DETAILS

60 % SUBMISSION

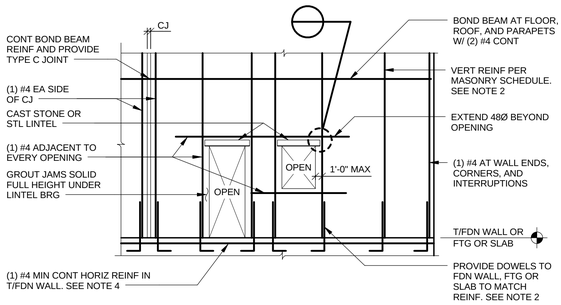
Drawn By:	Checked By:	Date:
CGM	SMK	21 JAN 2016

Seal & Signature
NOT FOR CONSTRUCTION
1/21/2016
8:01:39 AM

DASNY Project No
328250

Drawing Number
S302

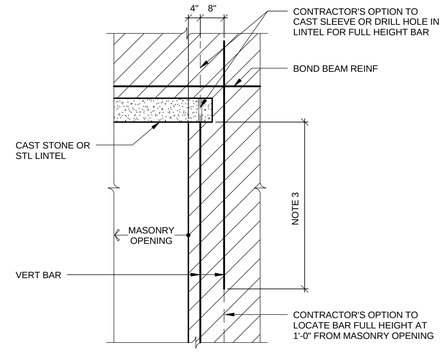
1/21/2016 8:01:39 AM



1 / S400 MASONRY WALL REINFORCING ELEVATION

NOT TO SCALE

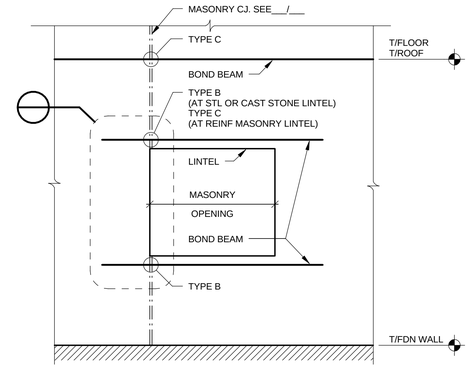
NOTES:
1. REINFORCING SHOWN IS TYPICAL UNLESS NOTED.
2. LAP REINFORCING BARS AS INDICATED IN THE MASONRY NOTES ON S___.
3. PROVIDE LADDER TYPE HORIZONTAL JOINT REINFORCING AT 16"OC AND AT TOP TWO COURSES UNLESS NOTED OTHERWISE.
4. AT INTERIOR PARTITIONS, WHERE NO FOUNDATION WALL IS PRESENT, PROVIDE (1) #4 CONTINUOUS IN SLAB (TYPICAL).
5. AT INTERIOR, NON-LOAD BEARING PARTITIONS, TOP OF PARTITION SHALL BE 1" MINIMUM BELOW FRAMING MEMBERS, SLABS, PLANK, OR DECK TO ALLOW FOR DEFLECTION OF STRUCTURE ABOVE. BRACE TOP OF PARTITION AS SHOWN IN __/___.
6. OPENINGS ARE NOT PERMITTED IN FIRE WALLS AND SHEAR WALLS EXCEPT WHERE SHOWN ON THE STRUCTURAL DRAWINGS.



2 / S400 WALL REINFORCING ELEVATION AT OPENING

NOT TO SCALE

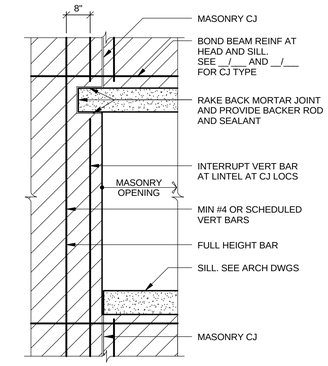
NOTES:
1. TERM "FULL HEIGHT" REFERS TO SINGLE CORE REINFORCED FULL HEIGHT. BARS MAY BE LAPPED.
2. USE FULL HEIGHT BAR THROUGH LINTEL BEARING AT REINFORCED CMU LINTEL.
3. LAP LENGTH SHALL BE THE LAP LENGTH INDICATED IN THE MASONRY NOTES ON S___ + 8 INCHES.
4. SEE___/___ FOR ELEVATION OF OPENING AT CONTROL JOINT.



3 / S400 WALL ELEVATION OF CONTROL JOINT AT BOND BEAM

NOT TO SCALE

NOTES:
1. SEE __/___ FOR DETAILS OF TYPE A, B, AND C CONTROL JOINTS AT BOND BEAMS.
2. SEE __/___ MASONRY WALL REINFORCING ELEVATOIN FOR ADDITIONAL INFORMATION.
3. PROVIDE LADDER TYPE HORIZONTAL JOINT REINFORCING AT 16"OC AND AT TOP TWO COURSES UNLESS NOTED OTHERWISE.

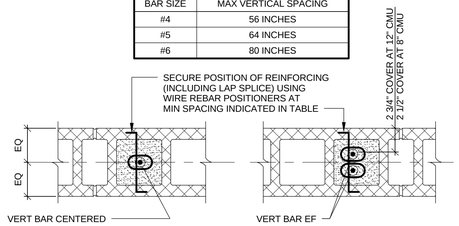


4 / S400 WALL REINFORCING ELEVATION AT OPENING WITH CONTROL JOINT

NOT TO SCALE

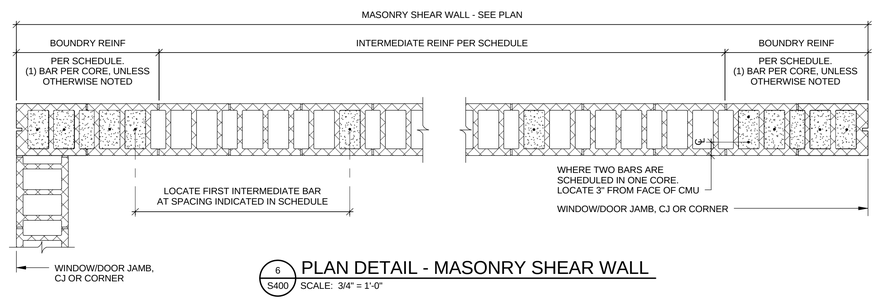
NOTES:
TERM "FULL HEIGHT" REFERS TO A SINGLE CORE REINFORCED FULL HEIGHT. BARS MAY BE LAP SPLICED.

REBAR POSITIONER SPACING	
BAR SIZE	MAX VERTICAL SPACING
#4	56 INCHES
#5	64 INCHES
#6	80 INCHES



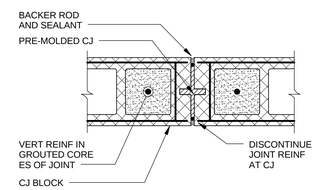
5 / S400 PLAN DETAIL - REINFORCING IN CMU CORES

NOT TO SCALE

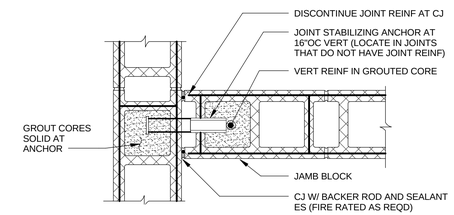


6 / S400 PLAN DETAIL - MASONRY SHEAR WALL

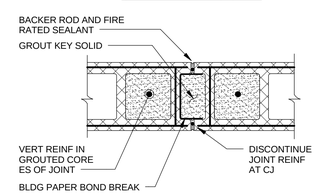
SCALE: 3/4" = 1'-0"



UNRATED WALLS ONLY



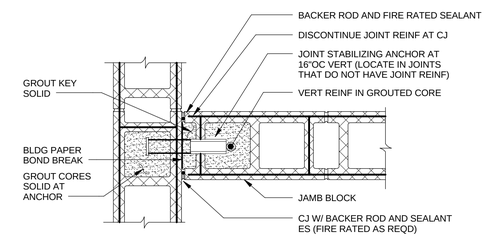
UNRATED



FIRE RATED WALLS OR UNRATED WALLS

7 / S400 WALL CONTROL JOINT

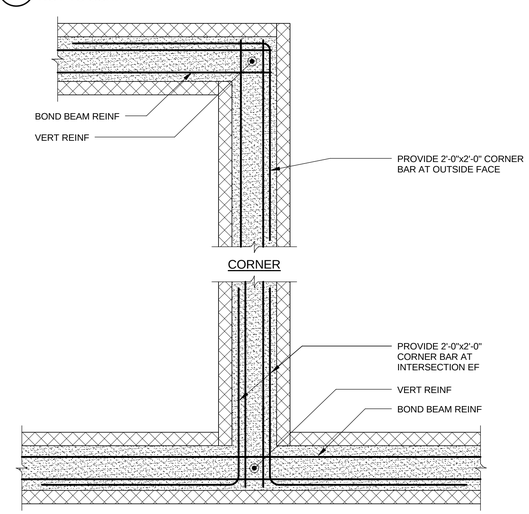
NOT TO SCALE



RATED

8 / S400 WALL CONTROL JOINT DETAIL

NOT TO SCALE

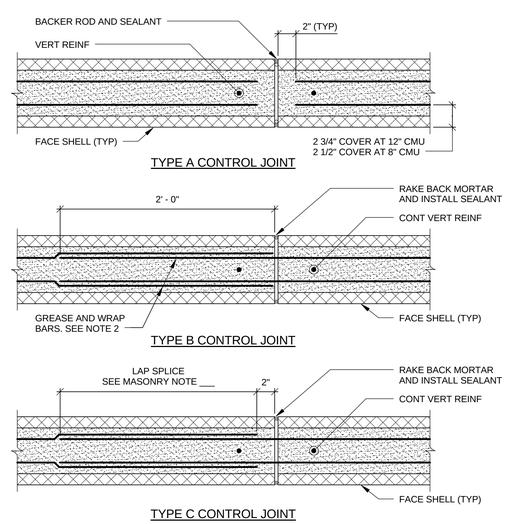


CORNER

INTERSECTION

9 / S400 BOND BEAM PLAN DETAILS

NOT TO SCALE



TYPE A CONTROL JOINT

TYPE B CONTROL JOINT

TYPE C CONTROL JOINT

10 / S400 CONTROL JOINTS AT BOND BEAMS

NOT TO SCALE

NOTES:
1. SEE __/___ FOR WALL ELEVATION OF CONTROL JOINT AT BOND BEAM.
2. CONTRACTOR'S OPTION TO CASE PVC OR GALVANIZED STEEL CONDUIT SLEEVES INTO WALL IN LIEU OF "GREASE AND WRAP".

MASONRY SHEAR WALL SCHEDULE

MARK	BOUNDARY REINFORCEMENT			INTERMEDIATE REINFORCEMENT			GROUTING
	FIRST FLOOR	SECOND FLOOR	THIRD FLOOR	FIRST FLOOR	SECOND FLOOR	THIRD FLOOR	
MSW1	NOT APPLICABLE	(6) #7 NORTH (4) #7 SOUTH	(6) #7 NORTH (4) #7 SOUTH	*	*	*	SEE NOTE 1
MSW2	NOT APPLICABLE	(3) #5	(2) #5	*	*	*	PARTIAL
MSW3	(2) #5 **	NOT APPLICABLE	NOT APPLICABLE	*	NOT APPLICABLE	NOT APPLICABLE	PARTIAL

NOTES:
1. SOLIDLY GROUTED AT FIRST AND _____ FLOORS, PARTIAL GROUT ABOVE THIRD.
2. * - INDICATES #5 AT 48 INCHES ON CENTER INTERMEDIATE REINFORCEMENT.
3. ** - INDICATES 2 BARS PER CORE.
4. PARTIAL GROUT INDICATES GROUTING AT REINFORCED CORES ONLY.
5. SEE __/S___ FOR SHEAR WALL PLAN DETAIL.

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.
IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THE DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:
MASONRY SECTIONS AND DETAILS

60 % SUBMISSION

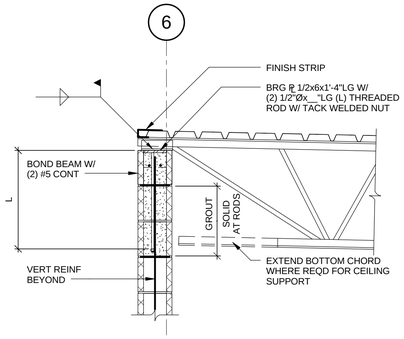
Drawn By:	Checked By:	Date:
CGM	SMK	21 JAN 2016

Seal & Signature
NOT FOR CONSTRUCTION
1/21/2016
8:02:06 AM

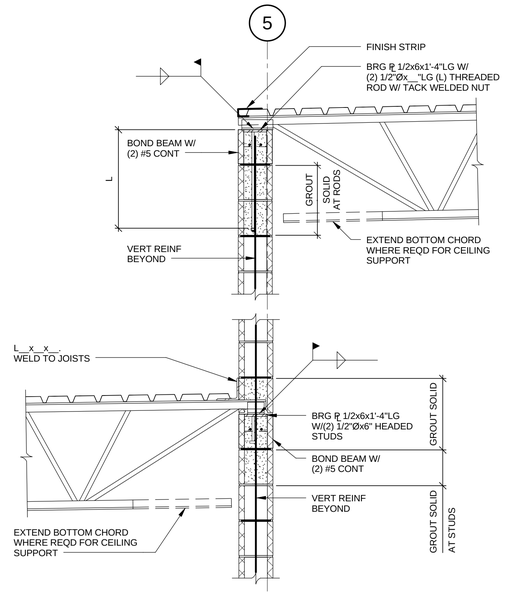
DASNY Project No
328250

Drawing Number
S400

1/21/2016 8:02:06 AM

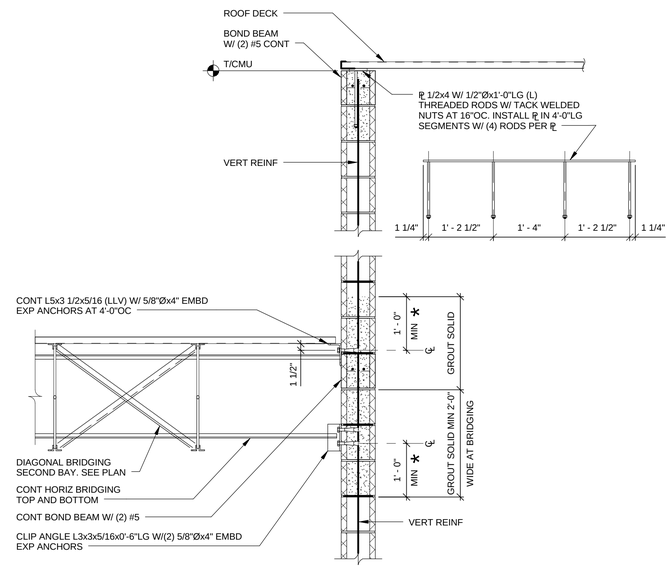


1 S401 WALL SECTION AT ROOF JOIST BEARING
SCALE: 3/4" = 1'-0"

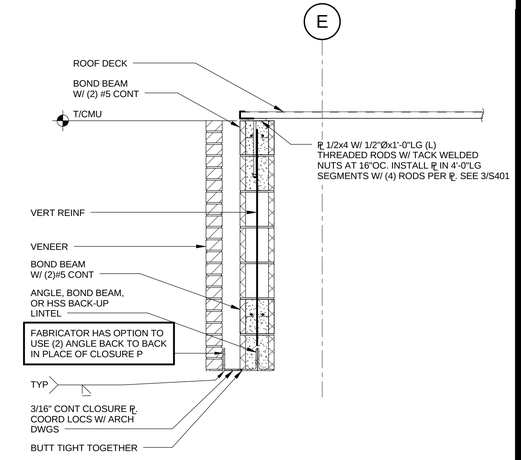


2 S401 SECTION
SCALE: 3/4" = 1'-0"

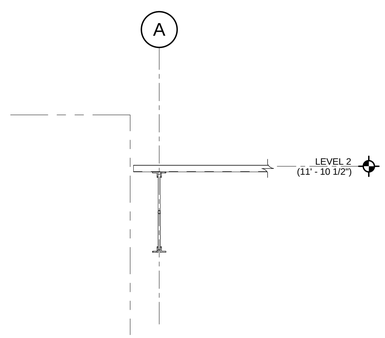
NOTE:
CONTRACTOR'S OPTION TO USE THREADED ROD WITH TACK WELDED NUT IN LIEU OF HEADED STUDS.



3 S401 SECTION
SCALE: 3/4" = 1'-0"



4 S401 SECTION
SCALE: 3/4" = 1'-0"



5 S401 SECTION
SCALE: 3/4" = 1'-0"

1/21/2016 8:02:21 AM

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THE DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:
MASONRY SECTIONS AND DETAILS

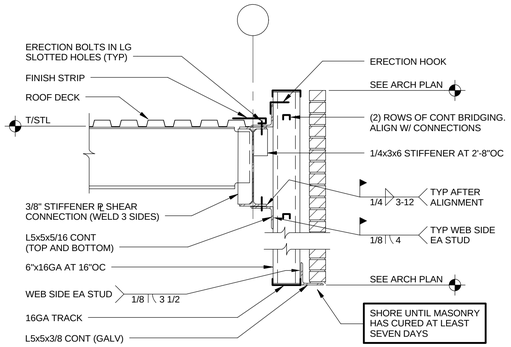
60 % SUBMISSION

Drawn By:	Checked By:	Date:
CGM	SMK	21 JAN 2016

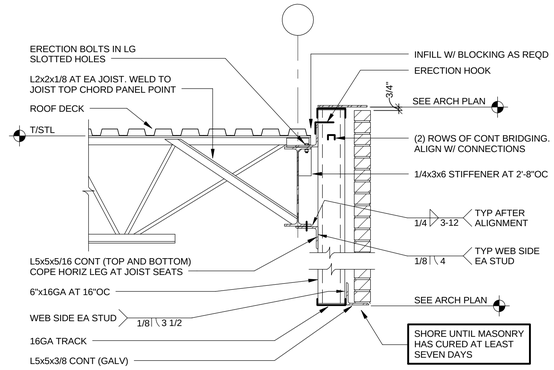
Seal & Signature
NOT FOR CONSTRUCTION
1/21/2016
8:02:21 AM

DASNY Project No
328250

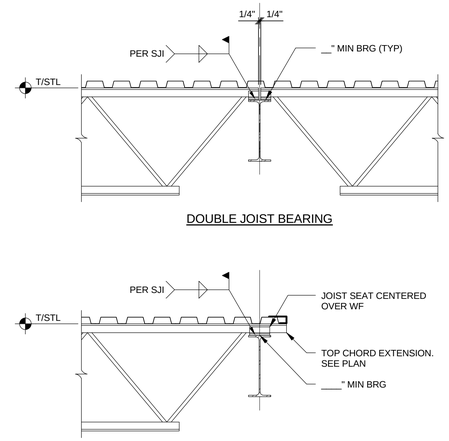
Drawing Number
S401



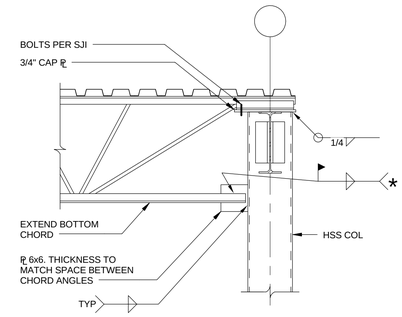
1 S500 SECTION AT ROOF EDGE
SCALE: 3/4" = 1'-0"



2 S500 SECTION AT ROOF EDGE
SCALE: 3/4" = 1'-0"

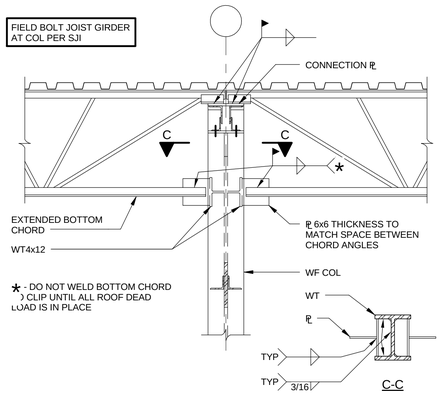


3 S500 JOIST BEARING AT BEAM
SCALE: 3/4" = 1'-0"

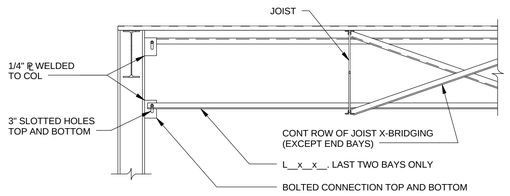


4 S500 JOIST BEARING AT EXTERIOR COLUMN
SCALE: 3/4" = 1'-0"

NOTE:
* - INDICATES DO NOT WELD BOTTOM CHORD TO CLIP UNTIL ALL ROOF DEAD LOAD IS IN PLACE.

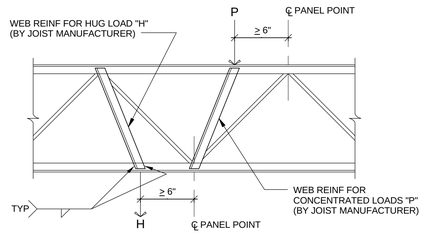


5 S500 JOIST BEARING AT INTERIOR COLUMN
SCALE: 3/4" = 1'-0"



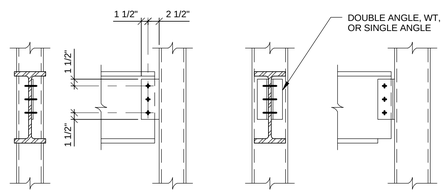
6 S500 JOIST BRIDGING AT COLUMN
SCALE: 1/2" = 1'-0"

NOTE:
WITH NO SNOW ON ROOF, INSTALL BOLTS TO PROVIDE 1/2" BETWEEN BOLT AND TOP OF SLOT.



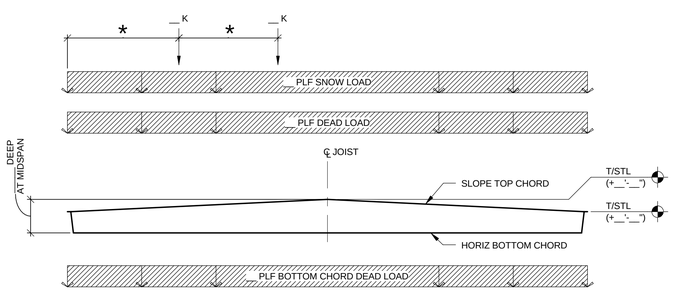
7 S500 JOIST WEB REINFORCING
SCALE: 3/4" = 1'-0"

NOTES:
1. PROVIDE WEB REINFORCING WHEN "P" AND "H" EXCEED 100 POUNDS. NOTIFY ENGINEER IF "P" OR "H" EXCEED 300 POUNDS.
2. GENERAL CONTRACTOR TO COORDINATE WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS, AND EQUIPMENT SUPPLIERS, FOR EQUIPMENT LOCATIONS AND WEIGHT. PROVIDE TO JOIST MANUFACTURER FOR INCLUSION IN JOIST DESIGN.
3. MINIMUM WEB REINFORCING SHALL BE L1 1/2x1 1/2x3/16 EACH SIDE OF JOIST. JOIST MANUFACTURER SHALL PROVIDE LARGER SIZE IF REQUIRED BY THE JOIST DESIGN.



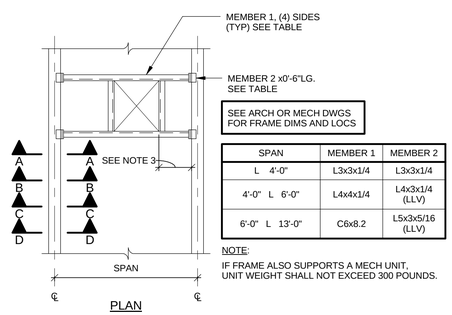
8 S500 CONNECTION DETAIL AT HSS COLUMN
SCALE: 3/4" = 1'-0"

NOTE:
SELECT CONNECTION FOR CAPACITY AS REQUIRED IN SPECIFICATIONS.



9 S500 JOIST SCHEMATIC DIAGRAM
NOT TO SCALE

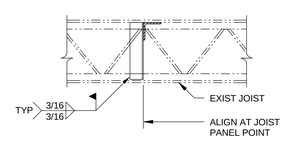
NOTES:
1. APPROXIMATE UPWARDS CAMBER AT MIDSPAN IS _____.
2. COORDINATE APPLICATION POINTS OF BOTTOM CHORD LOAD WITH CURTAIN DIVIDER SUPPLIER.
3. * - INDICATES COORDINATE WITH MECHANICAL CONTRACTOR FOR ACTUAL RTU SUPPLIED.
4. SEE PLAN FOR BRIDGING LOCATIONS.



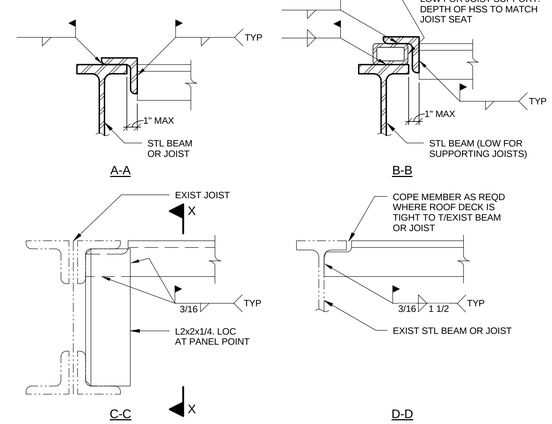
SPAN	MEMBER 1	MEMBER 2
L 4'-0"	L3x3x1/4	L3x3x1/4
4'-0" L 6'-0"	L4x4x1/4	L4x3x1/4 (LLV)
6'-0" L 13'-0"	C6x8.2	L5x3x5/16 (LLV)

PLAN

NOTE:
IF FRAME ALSO SUPPORTS A MECH UNIT, UNIT WEIGHT SHALL NOT EXCEED 300 POUNDS.

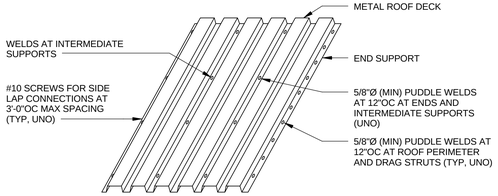


X-X



10 S500 WELDED ANGLE FRAME DETAIL
SCALE: 1/4" = 1'-0"

NOTES:
1. IF FRAME ALSO SUPPORTS A MECHANICAL UNIT, UNIT WEIGHT SHALL NOT EXCEED 300 POUNDS. NOTIFY ENGINEER IF UNIT WEIGHT WILL EXCEED 300 POUNDS.
2. DETAIL SHOWS DIFFERENT ATTACHMENT METHODS TO DIFFERENT EXISTING FRAMING MEMBERS. IF NOT NOTED IN PLAN, USE ATTACHMENT THAT WILL POSITION SUPPORT FRAME TIGHT TO EXISTING ROOF DECK AND WILL ACHIEVE PROPER CONNECTION TO THE EXISTING ROOF MEMBER. NOTIFY ENGINEER IF EXISTING CONDITIONS ARE DIFFERENT THAN SHOWN IN SECTIONS A-A, B-B, C-C, OR D-D.
3. WHERE DIMENSION IS LESS THAN 8", OMIT MEMBER 1 PARALLEL TO EXISTING BEAM OR JOIST. TYPICAL (4) SIDES OF PENETRATION.



11 S500 ROOF DECK ATTACHMENT DETAIL
SCALE: 3/4" = 1'-0"

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THE DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:
FRAMING SECTIONS AND DETAILS

60 % SUBMISSION

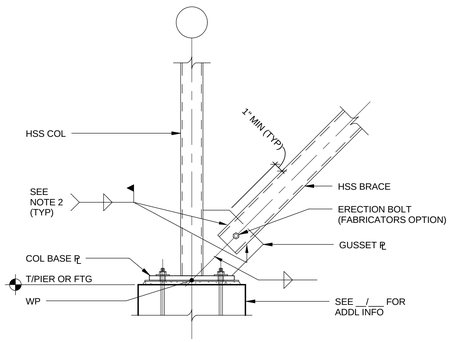
Drawn By:	Checked By:	Date:
CGM	SMK	21 JAN 2016

Seal & Signature
NOT FOR CONSTRUCTION
1/21/2016
8:02:32 AM

DASNY Project No
328250

Drawing Number
S500

1/21/2016 8:02:32 AM

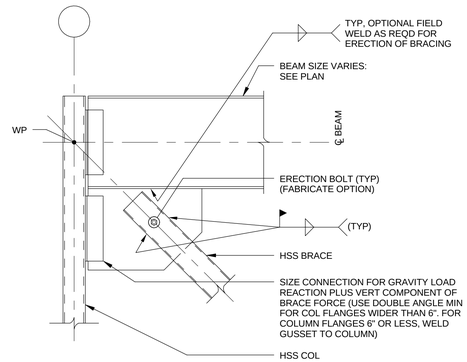


1 / S501 COLUMN BASE/BRACE CONNECTION DETAIL

SCALE: 3/4" = 1'-0"

NOTES:

1. SIZE BRACED CONNECTIONS USING AISC UNIFORM FORCE METHOD. SUBMIT CALCULATIONS STAMPED BY A LICENSED PE, FOR REVIEW. BRACE FORCES NOTED ARE [ASD] [LRFD] LOADS.
2. SLOT TUBE AND PROVIDE 4 LINES OF WELD. MINIMUM WELD LENGTH EQUALS WIDTH OF TUBE. PER AWS D1.1, SECTION 5.22.2, INCREASE WELD SIZE IF FIT-UP GAP EXCEEDS 1/16 INCH.



2 / S501 TYPICAL BRACE CONNECTION DETAIL

SCALE: 3/4" = 1'-0"

NOTE:

SEE 1/S501 FOR INFORMATION NOT NOTED.

1/21/2016 8:02:42 AM

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THE DOCUMENT IN ANY WAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Ferry Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street Rotterdam, NY 12150

DrawingTitle:

BRACED FRAME ELEVATIONS AND DETAILS

60 % SUBMISSION

Drawn By:	Checked By:	Date:
CGM	SMK	21 JAN 2016

Seal & Signature

NOT FOR CONSTRUCTION
1/21/2016
8:02:42 AM

DASNY Project No
328250

Drawing Number
S501

D 1 Removals Plan

1/8" = 1'-0"

0' 8' 16'

NORTH

N

PLAN NORTH

2/4/2016 7:49:56 PM

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEERS SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

REMOVALS FLOOR PLAN

60% SUBMISSION

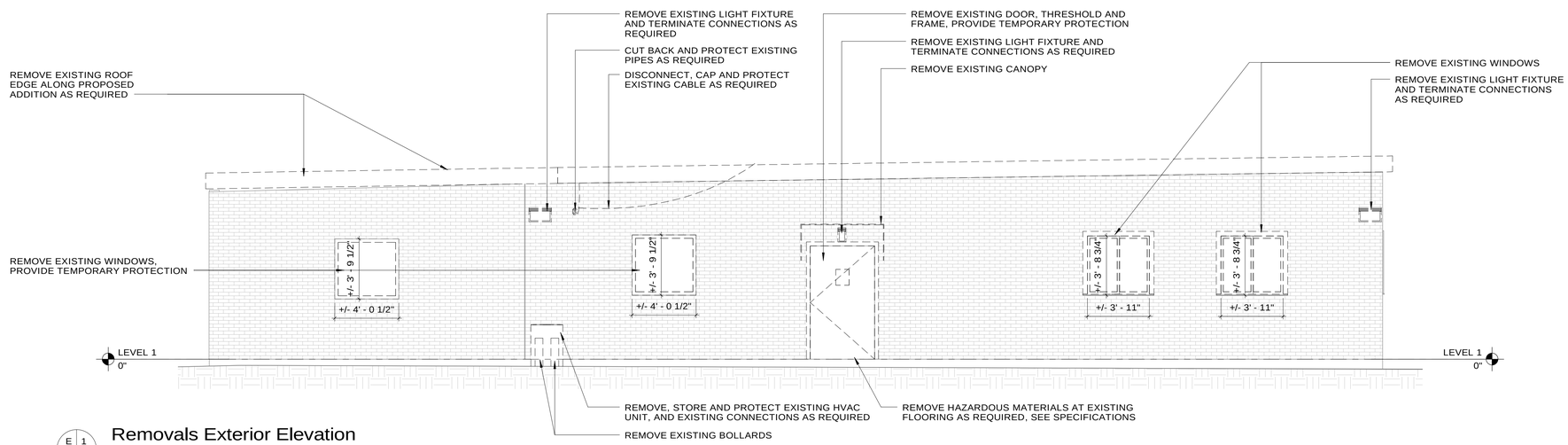
Drawn By:	Checked By:	Date:
NW	JB	21 JAN2016

Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No. 328250

Drawing Number AD101



E 1 Removals Exterior Elevation

1/4" = 1'-0"

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEER'S SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

REMOVALS ELEVATION

60% SUBMISSION

Drawn By:	Checked By:	Date:
NW	JB	21 JAN2016

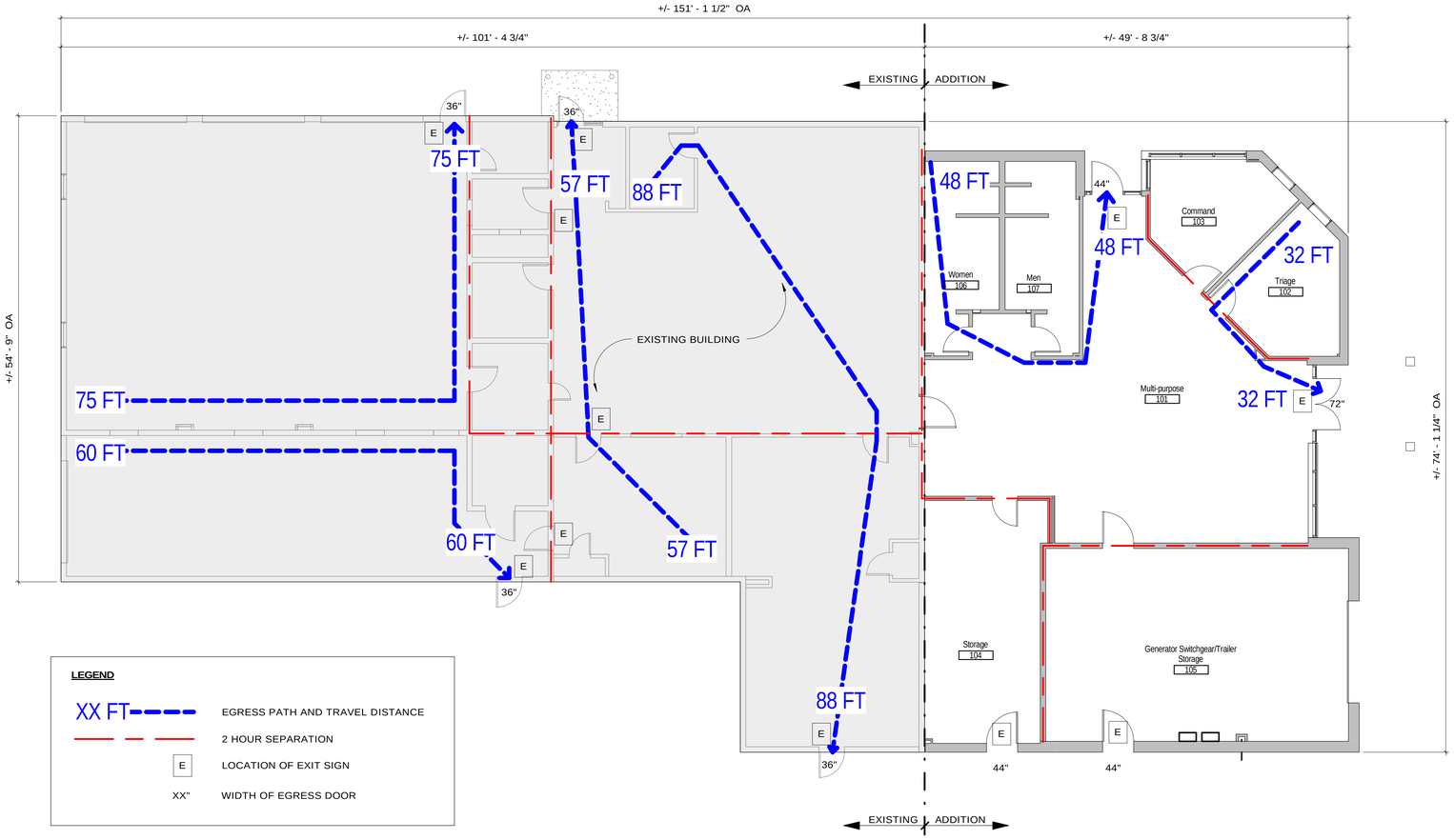
Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No.
328250

Drawing Number
AD201

2/4/2016 7:49:57 PM



D 1 Life Safety Plan

1/8" = 1'-0"

0' 8' 16'

NORTH

N

PLAN NORTH

CODE INFORMATION

2010 Existing Building Code of New York State
2010 Building Code of New York State
2010 Fire Code of New York State
2010 Plumbing Code of New York State
2010 Mechanical Code of New York State
2010 Property Maintenance Code of New York State
ICC/ANSI A117.1-2003 Accessible and Usable Buildings and Facilities

OCCUPANCY CLASSIFICATION (BCNYS 302.1)

MIXED USE:

Group S1	Moderate Hazard Storage
Group B	Business
Group A3	Assembly

CONSTRUCTION CLASSIFICATION (BCNYS 601)

Type IIB

FIRE RESISTANCE RATING REQUIREMENTS (BCNYS TABLE 601)

Structural Frame	0
Non-Bearing Exterior Walls	0
Non-Bearing Interior Walls	0
Roof Construction	0
Floor Construction	0

MAXIMUM EXIT ACCESS TRAVEL DISTANCE (BCNYS TABLE 1016.1)

Group S1	200 feet
Group B	200 feet
Group A3	200 feet

BUILDING AREAS (EXISTING+NEW)

EXISTING:	
Group S1	2793 GSF
Group B	1552 GSF
Group A3	1611 GSF
NEW:	
Group S1	893 GSF
Group B	874 GSF
Group A3	1623 GSF
Total Building Area	9346 GSF

OCCUPANT LOAD @ ADDITION (BCNYS TABLE 1004.1.1)

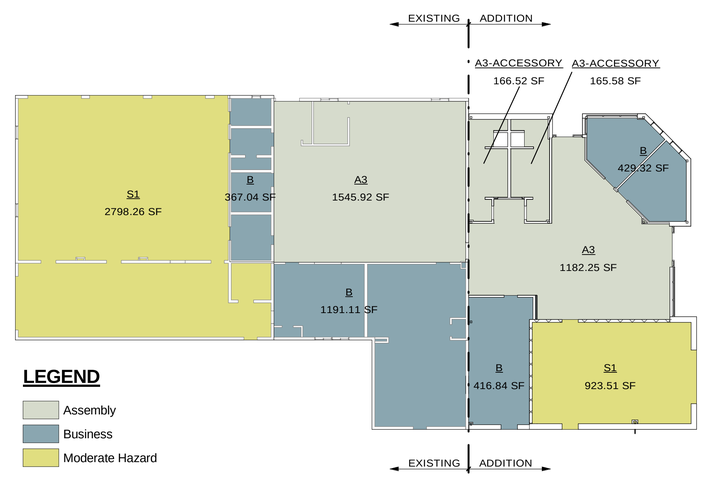
Group S1 (@ 300 GSF per occupant)	3
Group B (@ 100 GSF per occupant)	10
Group A3 (@ 15 NSF per occupant)	80
A3-Accessory (@ 300 GSF per occupant)	2
Total Occupant Load	95

HEIGHT AND AREA LIMITATIONS (BCNYS TABLE 503)

A3 2 stories, 9500 sf

REQUIRED SEPARATION OF OCCUPANCIES (BCNYS TABLE 508.3.3)

S1&B	2 hours
A3&B	2 hours
A3&S1	2 hours



D 3 Occupancy Areas

1/16" = 1'-0"

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST NAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

Drawing Title:

LIFE SAFETY PLAN

60% SUBMISSION

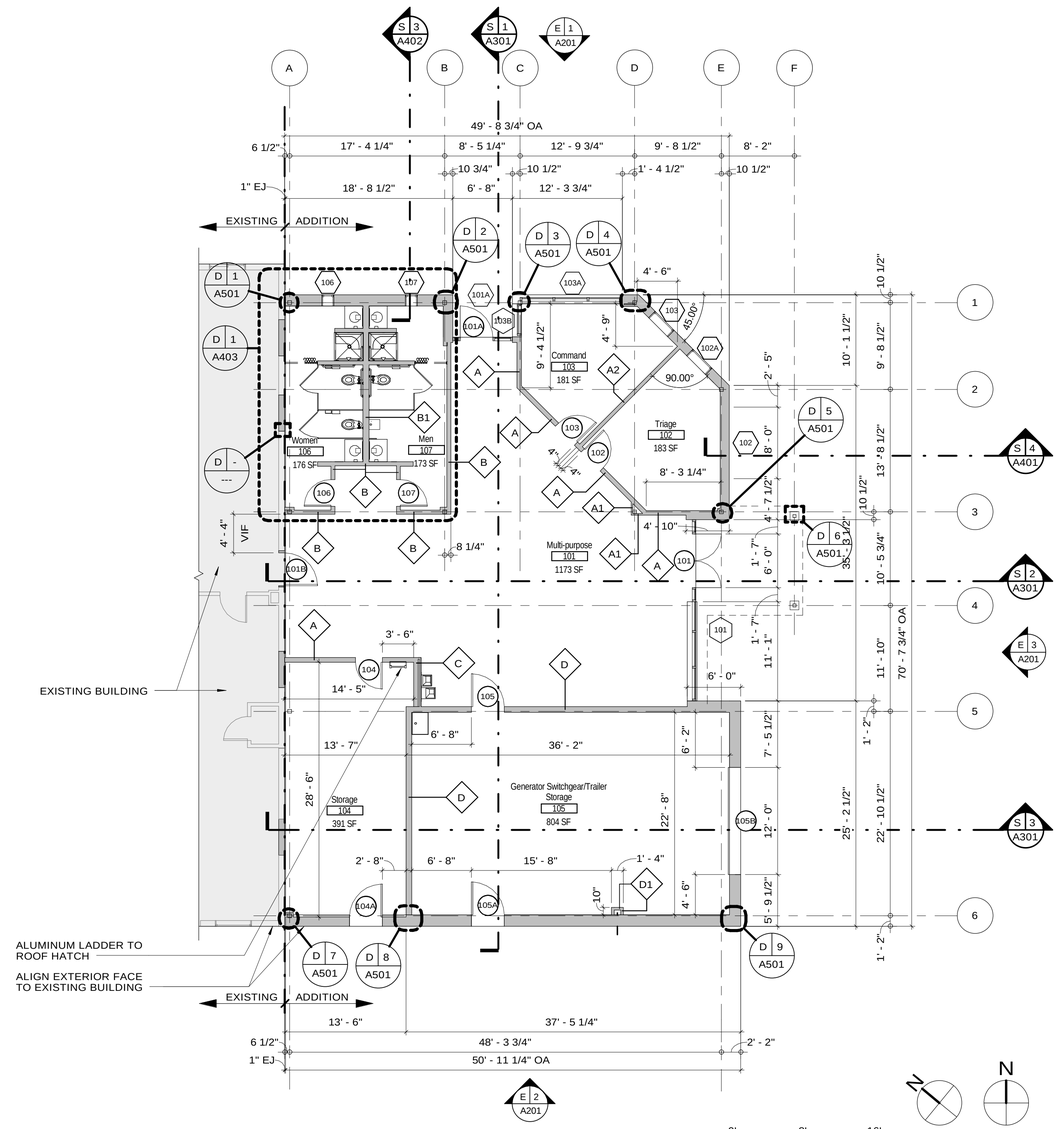
Drawn By:	Checked By:	Date:
JB	DL	21 JAN2016

Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No. 328250

Drawing Number LS101



D 1 Floor Plan

1/8" = 1'-0"

EXISTING BUILDING AREA

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEERS SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

Drawing Title:

FLOOR PLAN

60% SUBMISSION

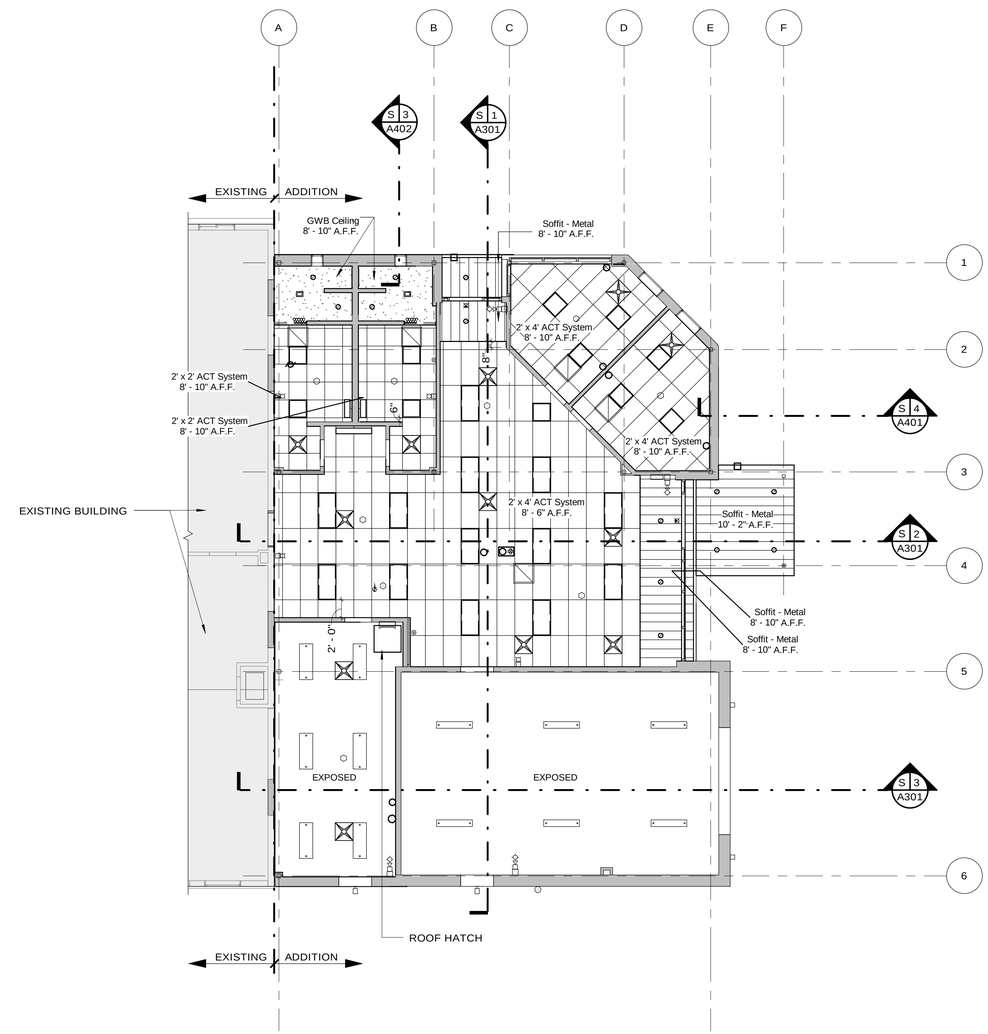
Drawn By:	Checked By:	Date:
NW	JB	21 JAN2016

Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No. 328250

Drawing Number A101



D 1 Reflected Ceiling Plan

1/8" = 1'-0"

0' 8' 16'

EXISTING BUILDING AREA

NORTH

N

PLAN NORTH

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEER'S SIGNATURE. COPYRIGHT © 2013.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

NY RISING COMMUNITIES

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

Drawing Title:

REFLECTED CEILING PLAN

60% SUBMISSION

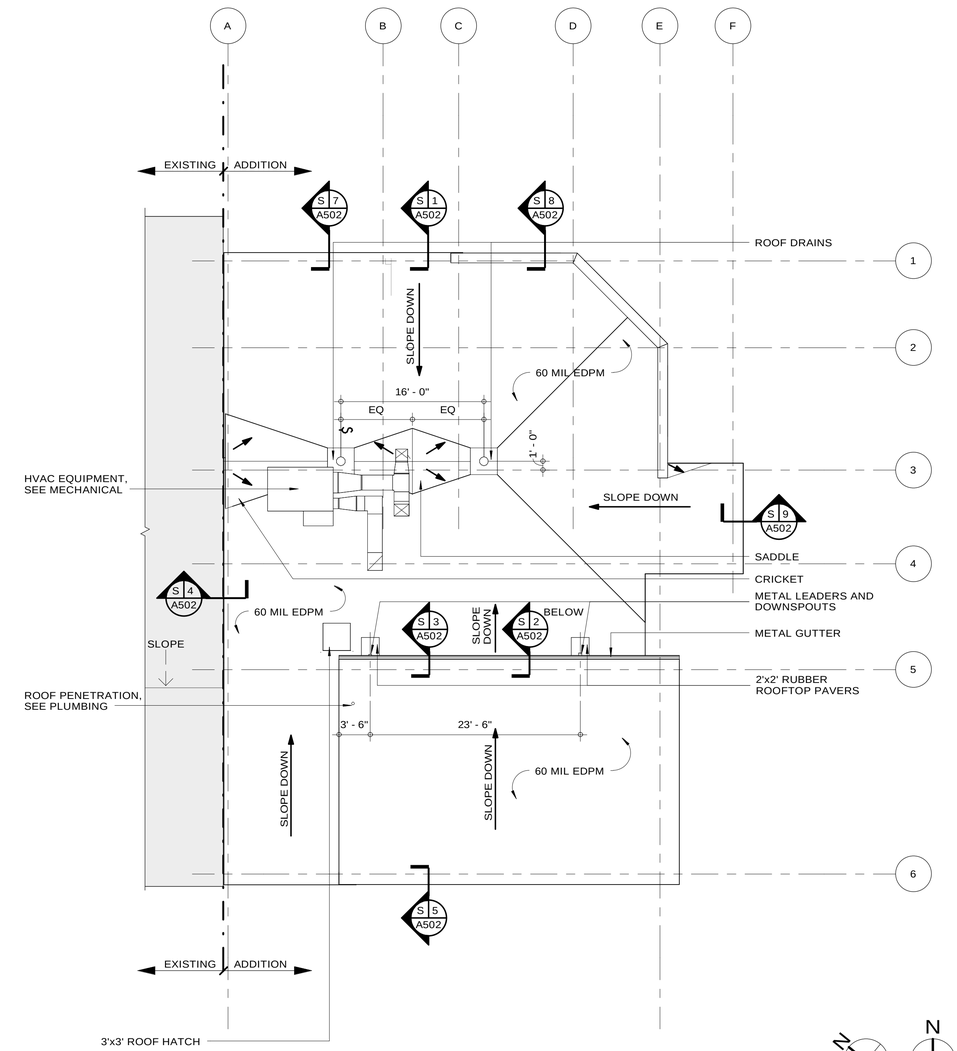
Drawn By:	Checked By:	Date:
NW	JB	21 JAN2016

Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No. 328250

Drawing Number A102



D 1 Roof Plan

1/8" = 1'-0"

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEERS SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

ROOF PLAN

60% SUBMISSION

Drawn By:	Checked By:	Date:
NW	JB	21 JAN2016

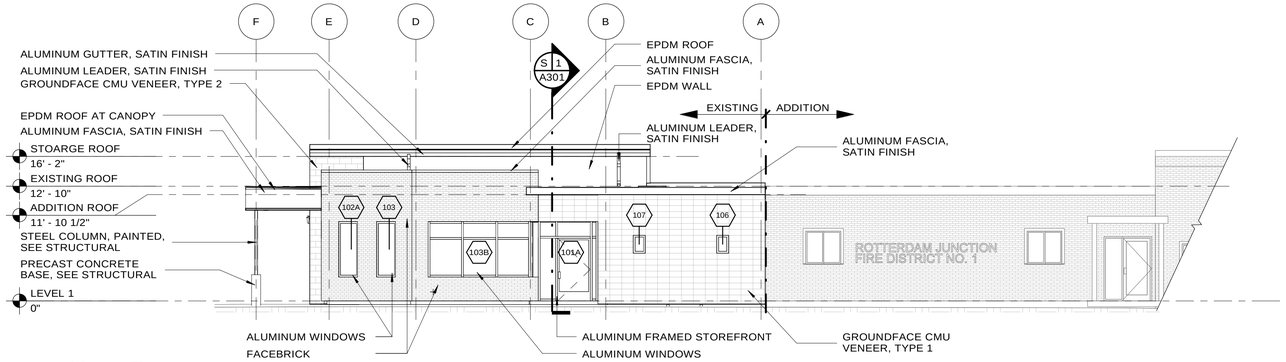
Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No. 328250

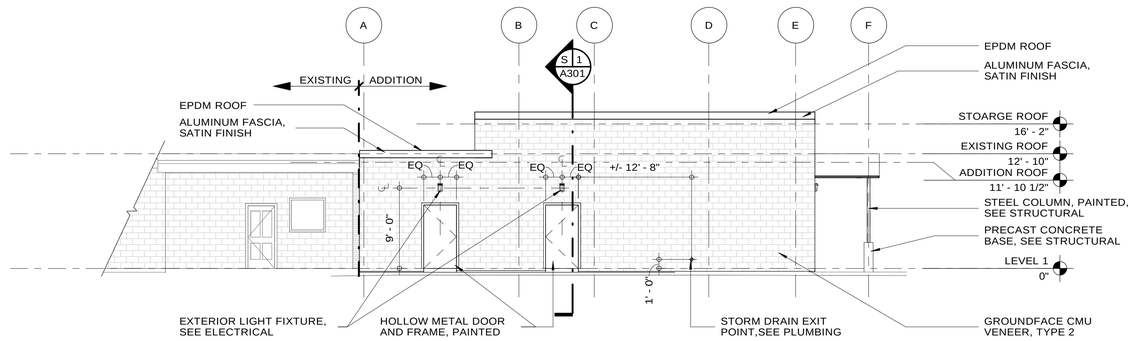
Drawing Number A103

2/4/2016 7:45:55 PM



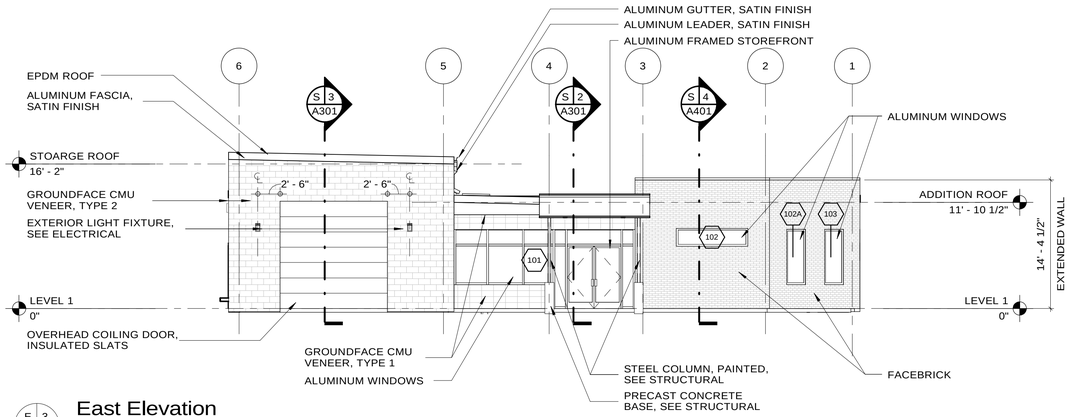
E 1 North Elevation

1/8" = 1'-0"



E 2 South Elevation

1/8" = 1'-0"



E 3 East Elevation

1/8" = 1'-0"

2/4/2016 7:45:57 PM

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEER'S SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Farts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

EXTERIOR ELEVATIONS

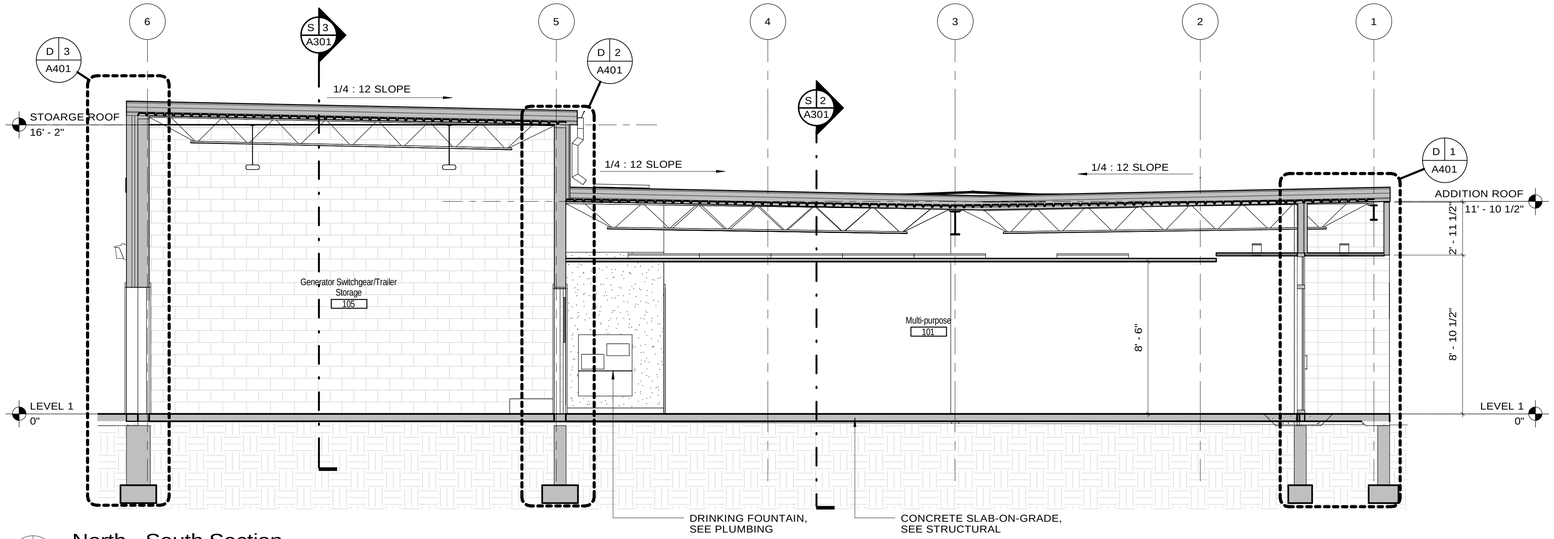
60% SUBMISSION

Drawn By:	Checked By:	Date:
NW	JB	21 JAN2016

Seal & Signature: NOT FOR CONSTRUCTION

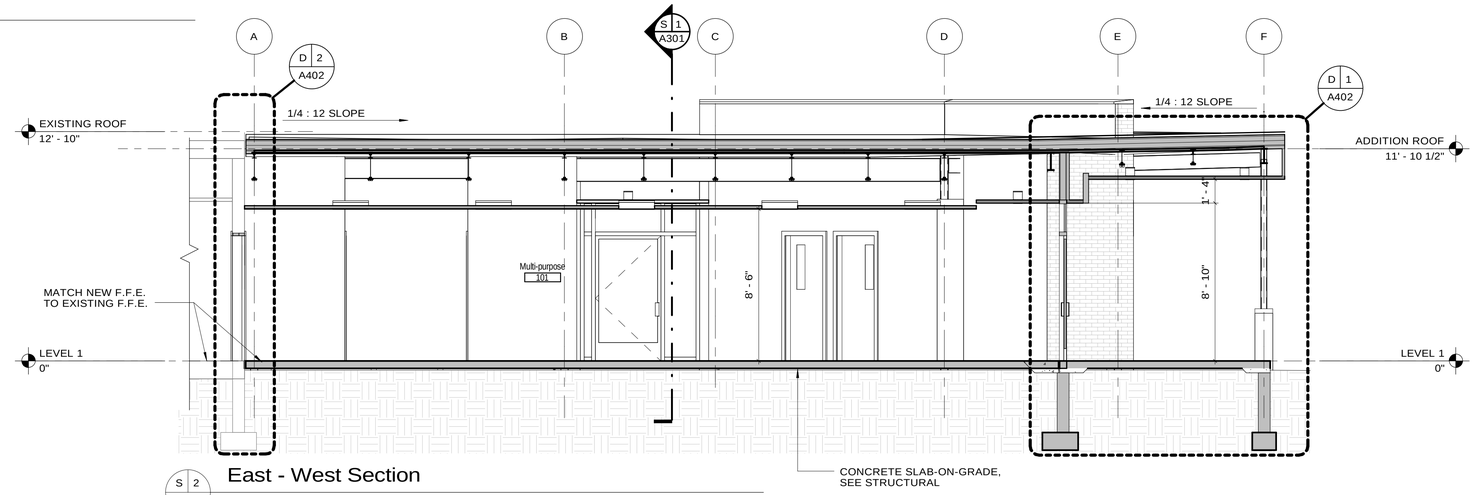
DASNY Project No. 328250

Drawing Number A201



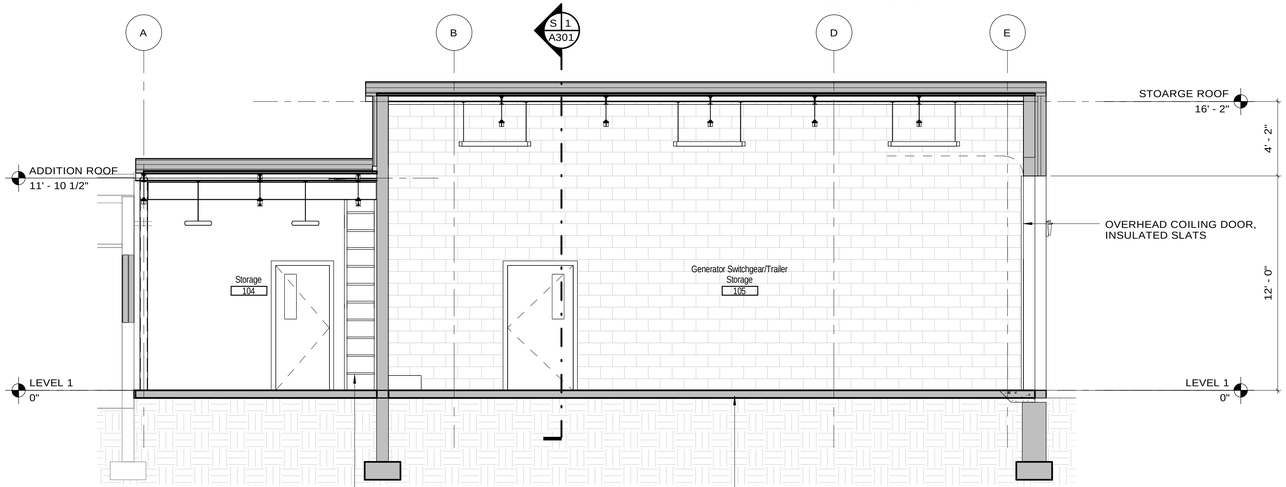
S 1 North - South Section

1/4" = 1'-0"



S 2 East - West Section

1/4" = 1'-0"



S 3 Switchgear Room Section

1/4" = 1'-0"

2/4/2016 7:45:58 PM

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEERS SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

BUILDING SECTIONS

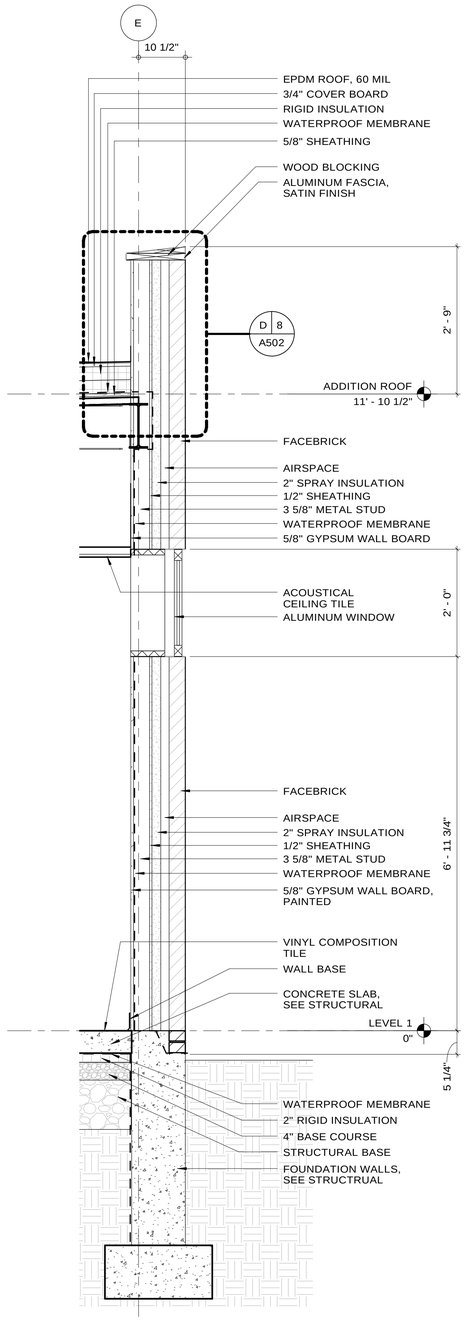
60% SUBMISSION

Drawn By:	Checked By:	Date:
NW	JB	21 JAN2016

Seal & Signature: NOT FOR CONSTRUCTION

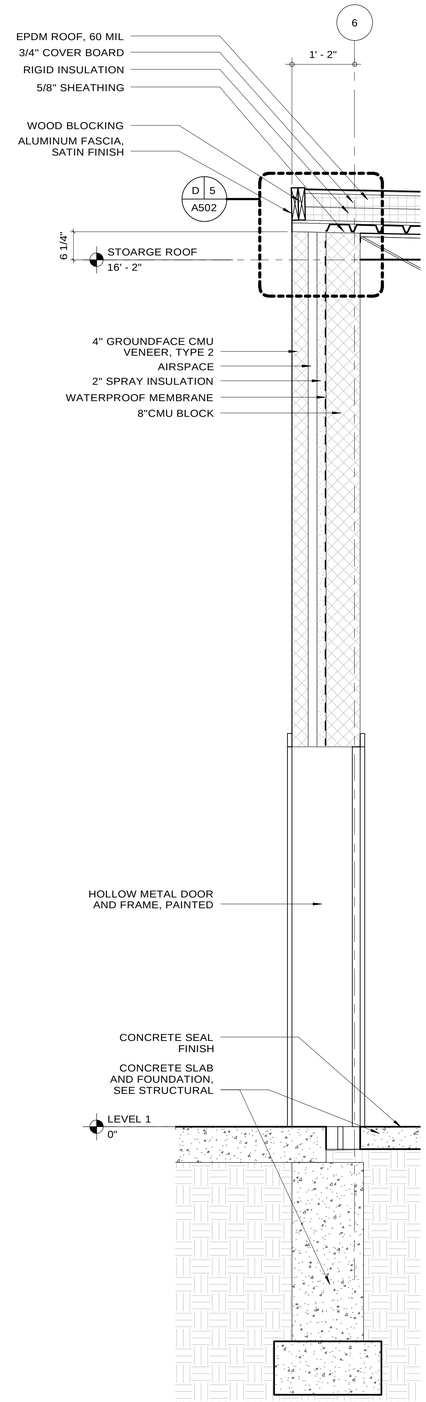
DASNY Project No.: 328250

Drawing Number: A301



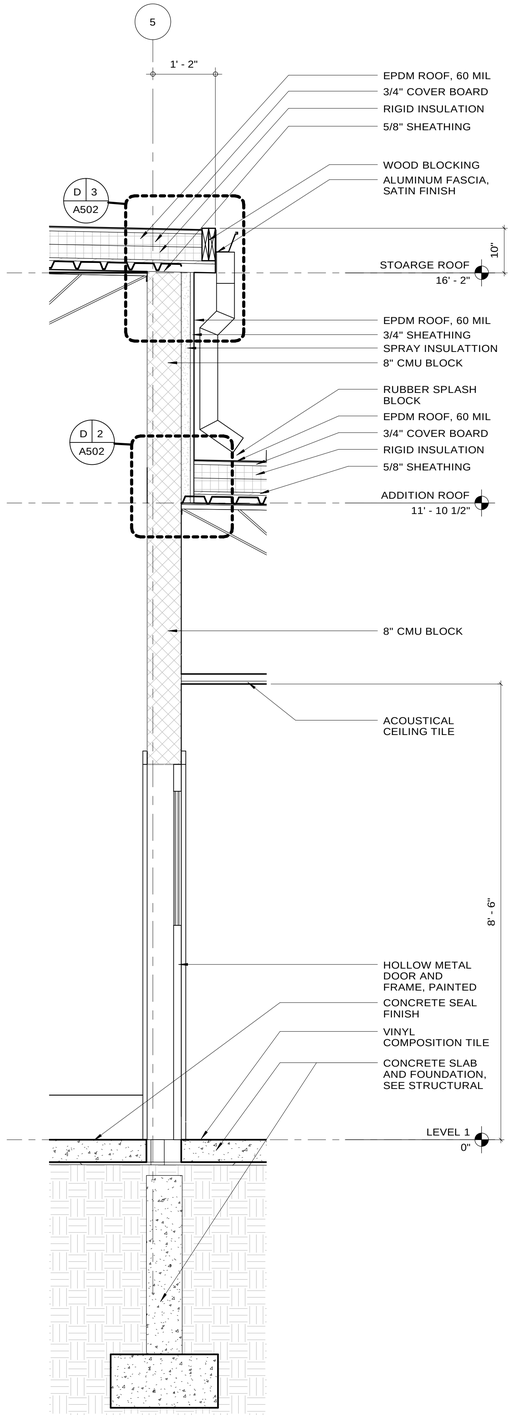
S 4 Wall Section D

3/4" = 1'-0"



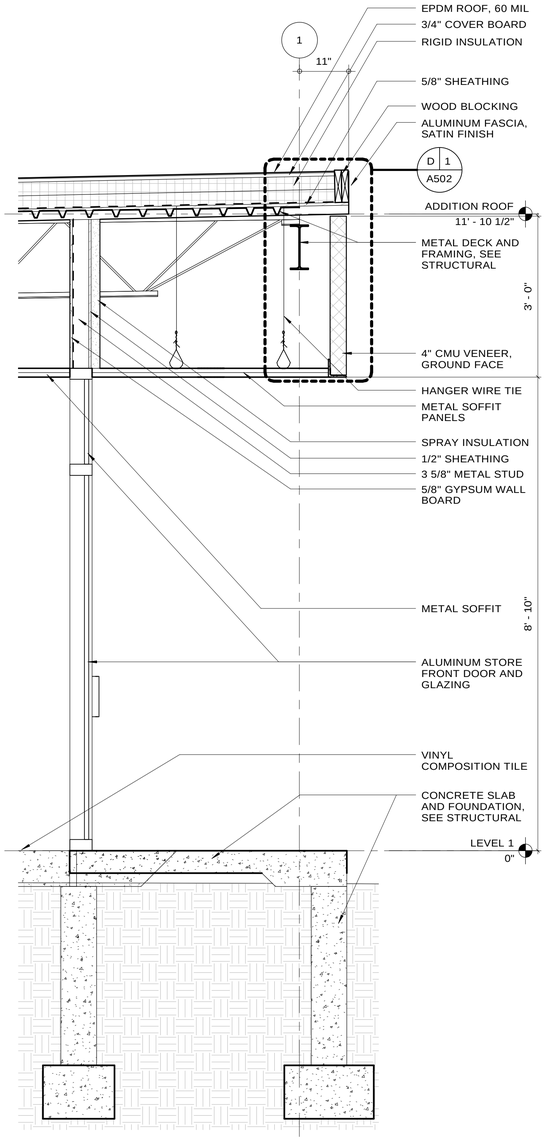
S 3 Wall Section C

3/4" = 1'-0"



S 2 Wall Section B

3/4" = 1'-0"



S 1 Wall Section A

3/4" = 1'-0"

2/4/2016 7:45:59 PM

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEERS SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

WALL SECTIONS

60% SUBMISSION

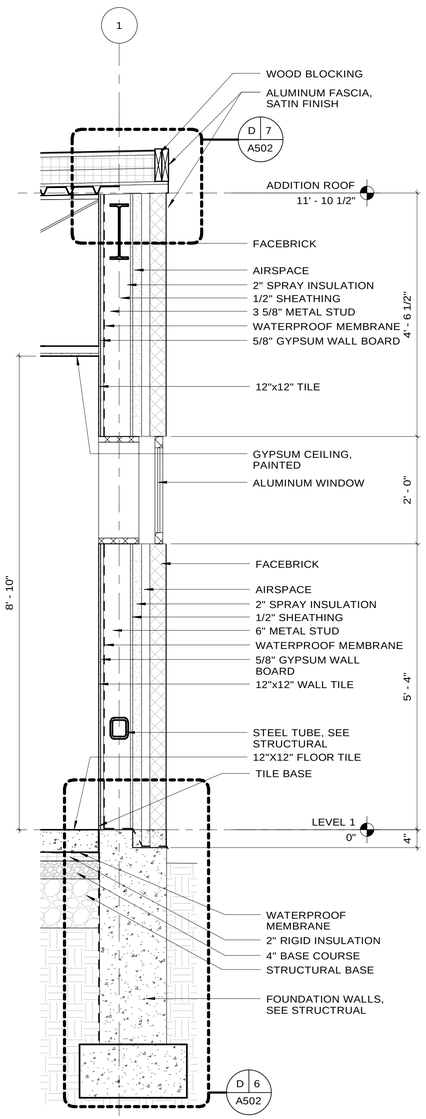
Drawn By:	Checked By:	Date:
NW		21 JAN2016

Seal & Signature

NOT FOR CONSTRUCTION

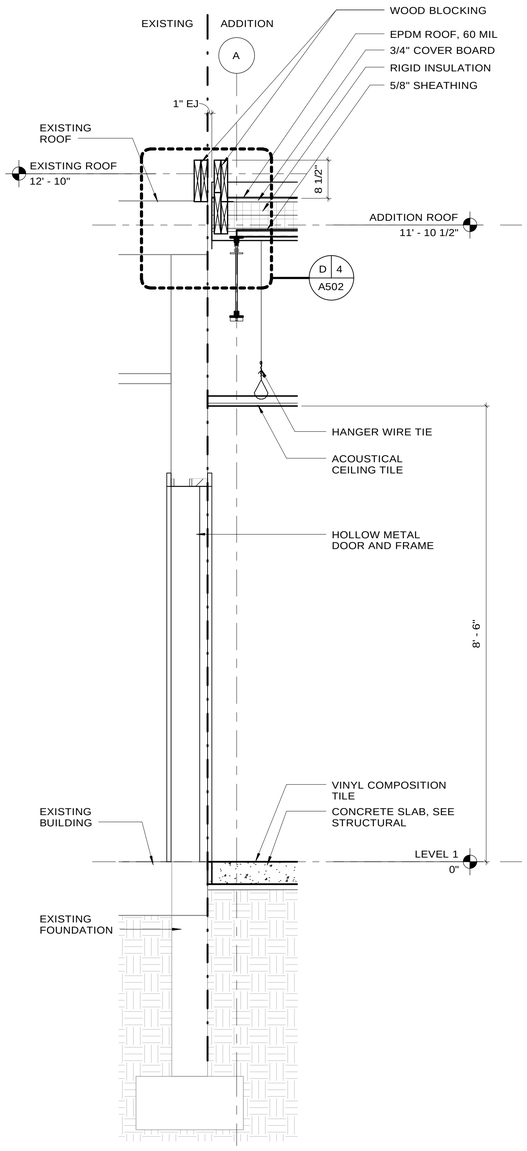
DASNY Project No.
328250

Drawing Number
A401



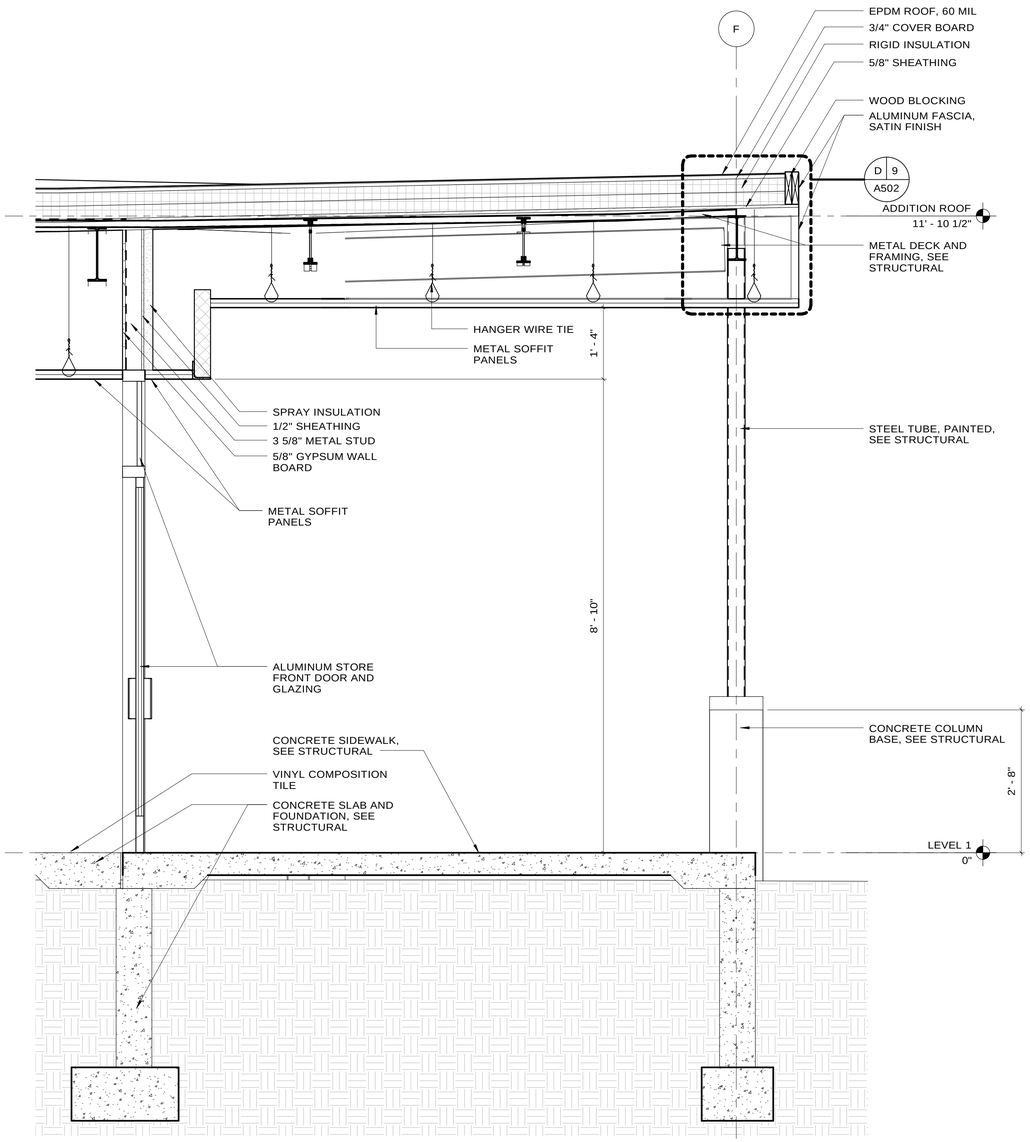
D 3 Wall Section G

3/4" = 1'-0"



D 2 Wall Section F

3/4" = 1'-0"



D 1 Wall Section E

3/4" = 1'-0"

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEER'S SIGNATURE. COPYRIGHT © 2013.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

Drawing Title:

WALL SECTIONS

60% SUBMISSION

Drawn By:	Checked By:	Date:
NW		21 JAN2016

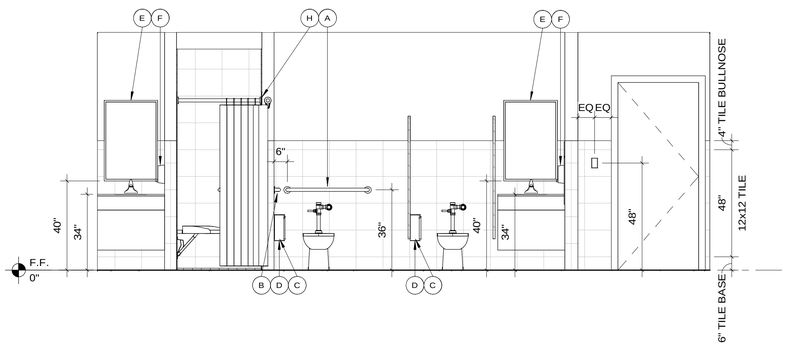
Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No. 328250

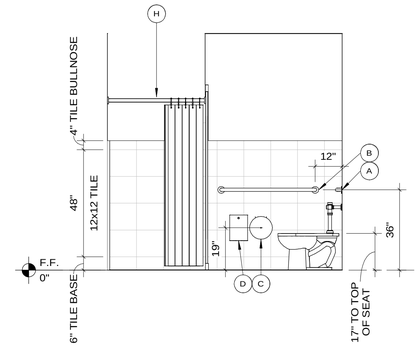
Drawing Number A402

2/4/2016 7:45:59 PM



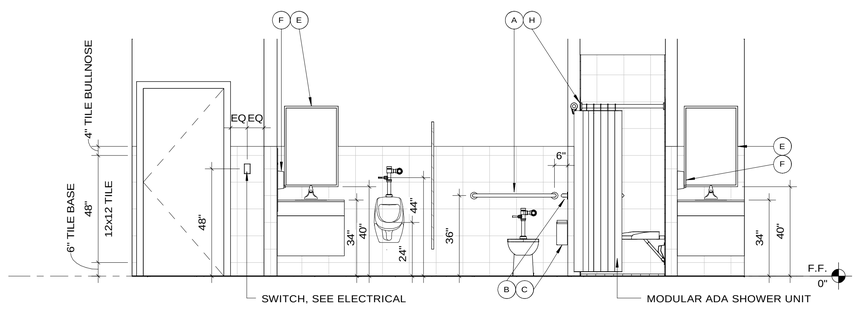
D 5 Interior Elevation D

3/8" = 1'-0"



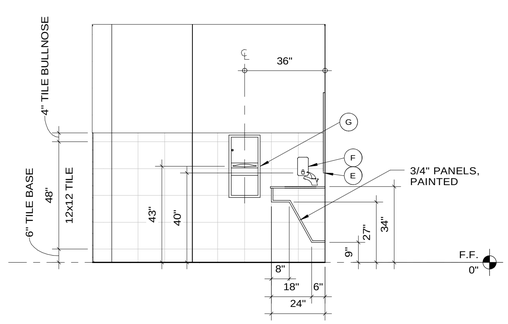
D 6 Interior Elevation E

3/8" = 1'-0"



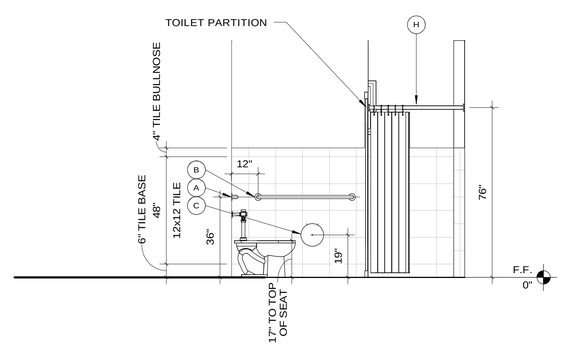
D 2 Interior Elevation A

3/8" = 1'-0"



D 3 Interior Elevation B

3/8" = 1'-0"

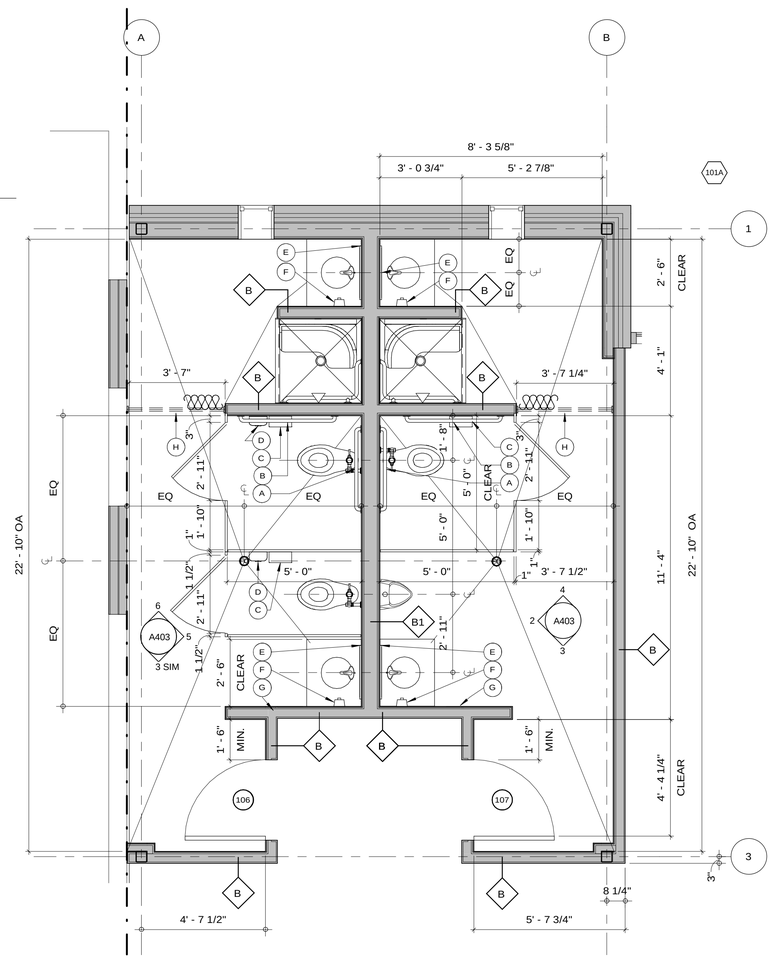


D 4 Interior Elevation C

3/8" = 1'-0"

ACCESSORY SCHEDULE

MARK	MODEL	DESCRIPTION	FURNISHED BY	INSTALLED BY	COMMENTS
A	B-8170	42" Grab Bars	Contractor	Contractor	
B	B-8170	36" Grab Bars	Contractor	Contractor	
C	B-5424	Toilet Tissue Dispenser	Contractor	Contractor	
D	B-4781	Napkin Disposal, Surface-Mounted	Contractor	Contractor	
E	B-6563	Framed Mirror, 24"x 36"	Contractor	Contractor	
F	B-6563	Soap Dispenser	Contractor	Contractor	
G	B-2291	Towel Dispenser/Waste Receptacle, Recessed	Contractor	Contractor	
H	B-9534	Duck Shower Curtain	Contractor	Contractor	



D 1 Enlarged Plan - Restrooms

3/8" = 1'-0"

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEERS SIGNATURE. COPYRIGHT © 2013.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

NY RISING COMMUNITIES

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

Drawing Title:

ENLARGED PLAN - RESTROOMS

60% SUBMISSION

Drawn By:	Checked By:	Date:
NW		21 JAN2016

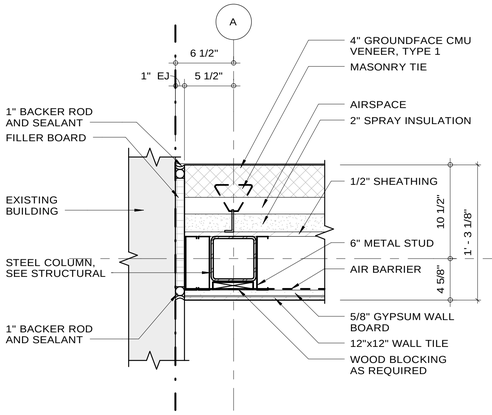
Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No. 328250

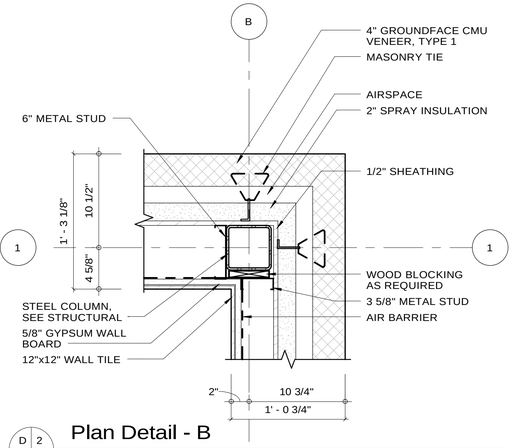
Drawing Number A403

2/4/2016 7:46:04 PM



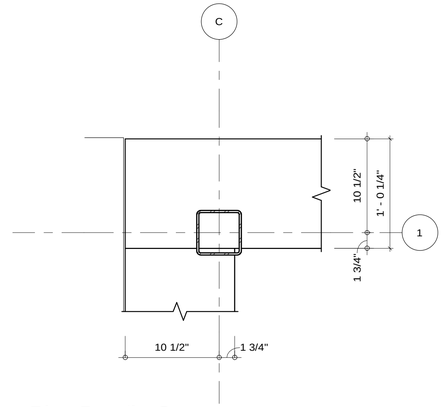
D 1 Plan Detail - A

1 1/2" = 1'-0"



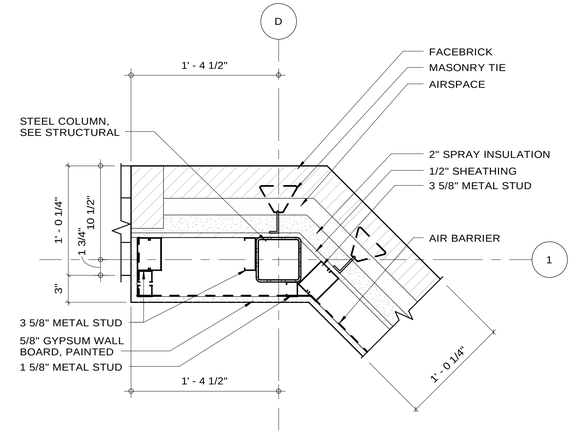
D 2 Plan Detail - B

1 1/2" = 1'-0"



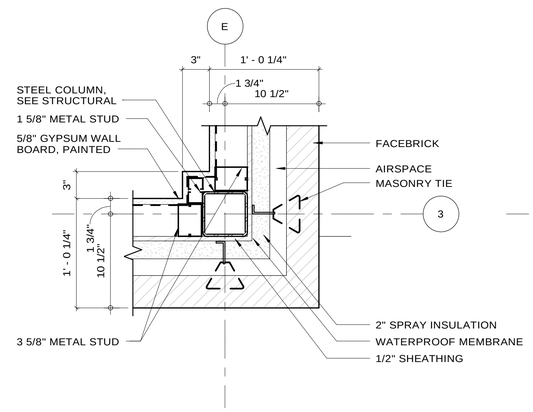
D 3 Plan Detail - C

1 1/2" = 1'-0"



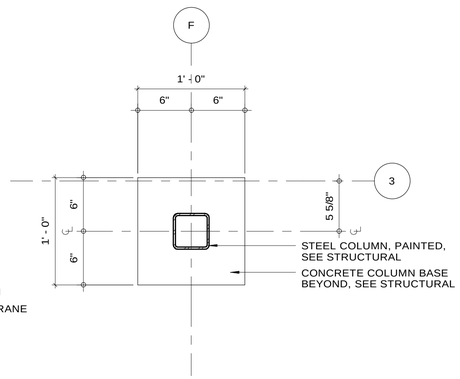
D 4 Plan Detail - D

1 1/2" = 1'-0"



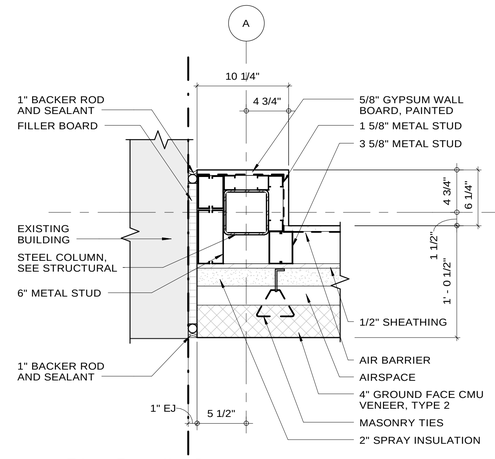
D 5 Plan Detail - E

1 1/2" = 1'-0"



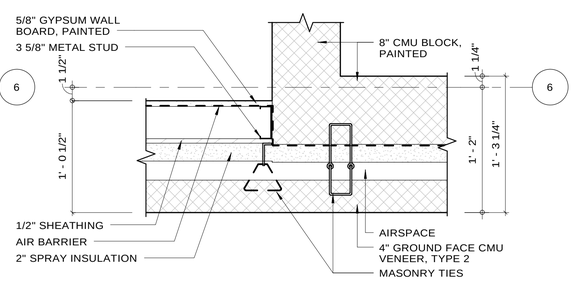
D 6 Plan Detail - F

1 1/2" = 1'-0"



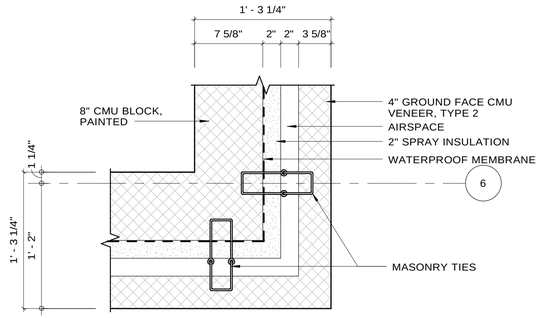
D 7 Plan Detail - J

1 1/2" = 1'-0"



D 8 Plan Detail - H

1 1/2" = 1'-0"



D 9 Plan Detail - G

1 1/2" = 1'-0"

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEER'S SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Ferry Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

PLAN DETAILS

60% SUBMISSION

Drawn By:	Checked By:	Date:
NW		21 JAN2016

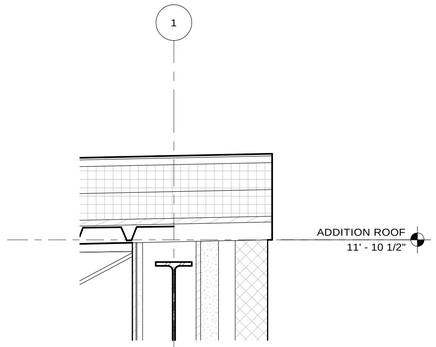
Seal & Signature

NOT FOR CONSTRUCTION

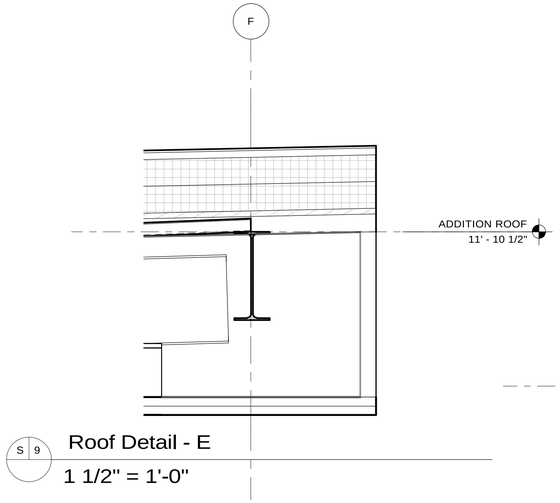
DASNY Project No. 328250

Drawing Number A501

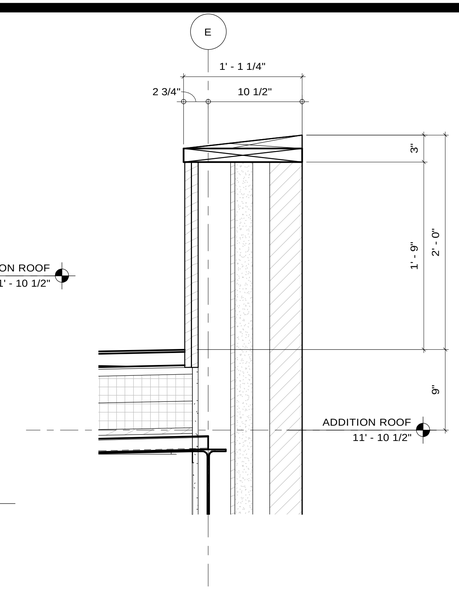
2/4/2016 7:46:06 PM



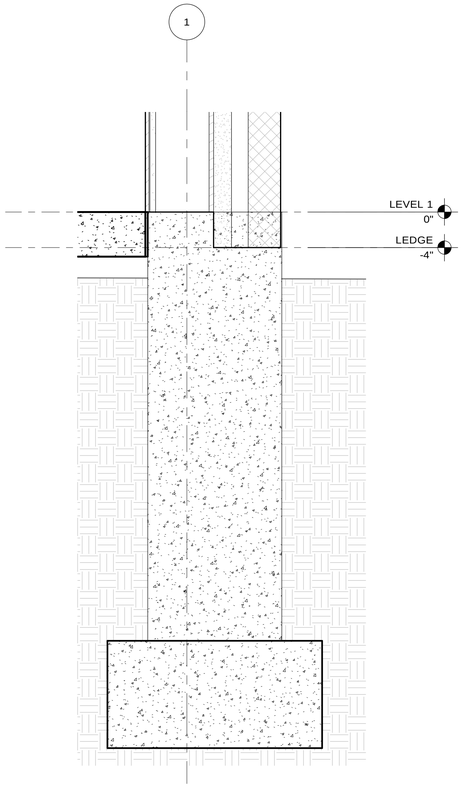
S 7 Roof Detail - G
1 1/2" = 1'-0"



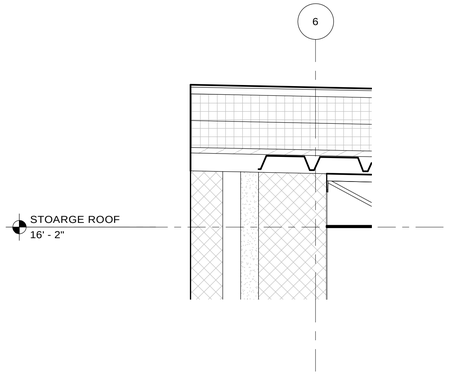
S 9 Roof Detail - E
1 1/2" = 1'-0"



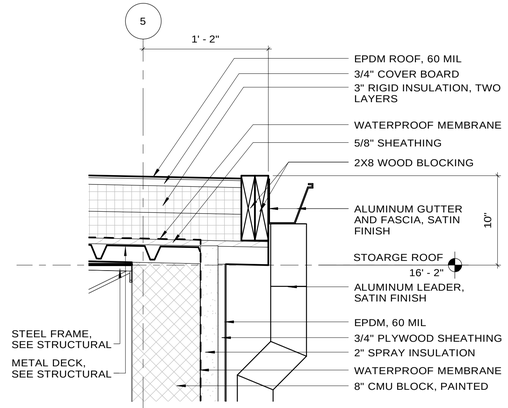
S 8 Roof Detail - D
1 1/2" = 1'-0"



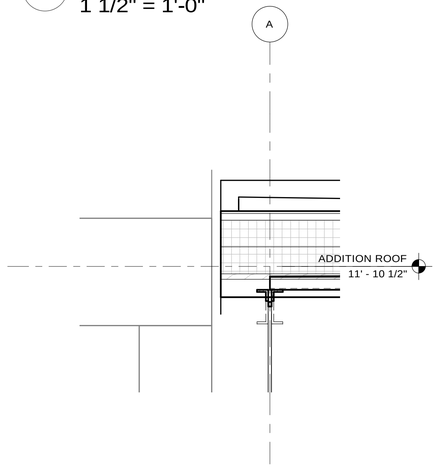
S 6 Foundation Detail - G
1 1/2" = 1'-0"



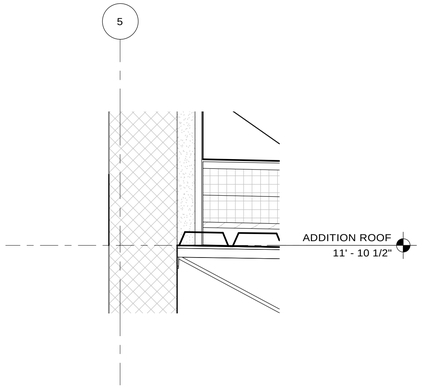
S 5 Roof Detail - C
1 1/2" = 1'-0"



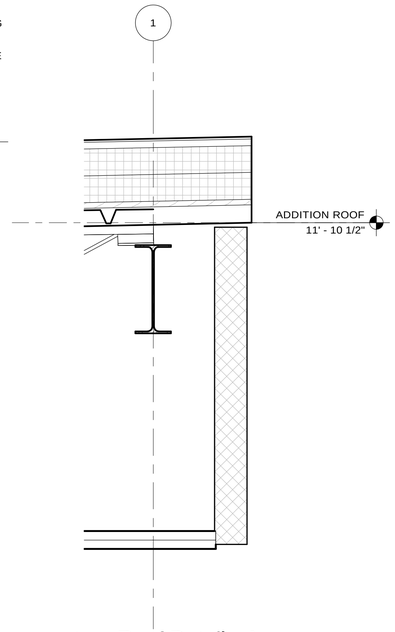
S 3 Roof Detail - B
1 1/2" = 1'-0"



S 4 Roof Detail - F
1 1/2" = 1'-0"



S 2 Roof Detail - B1
1 1/2" = 1'-0"



S 1 Roof Detail - A
1 1/2" = 1'-0"

2/4/2016 7:46:07 PM

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEER'S SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client
New York Rising Community Reconstruction Program

NY RISING COMMUNITIES

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:
ROOF AND FOUNDATION DETAILS

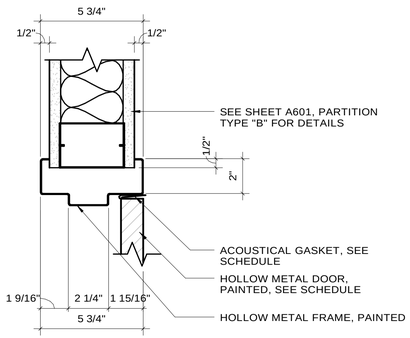
60% SUBMISSION

Drawn By:	Checked By:	Date:
NW		21 JAN2016

Seal & Signature
NOT FOR CONSTRUCTION

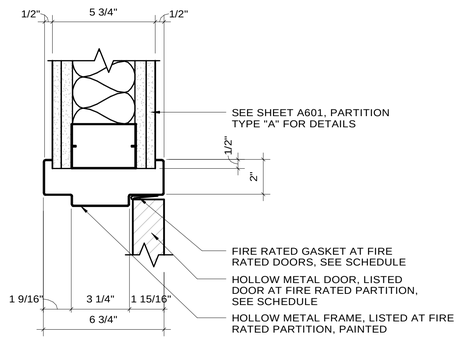
DASNY Project No.
328250

Drawing Number
A502



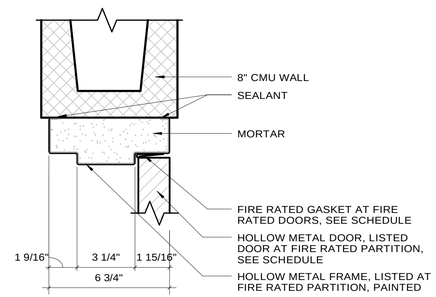
D 10 DOOR HEAD DETAIL @ INT RR

3" = 1'-0"



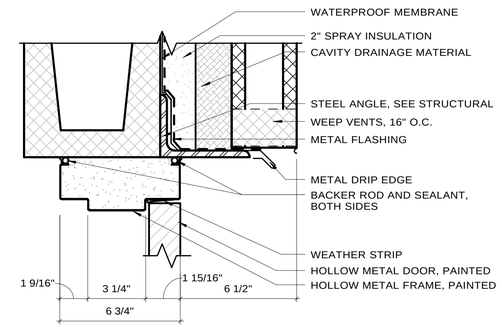
D 7 DOOR HEAD DETAIL @ INT GWB

3" = 1'-0"



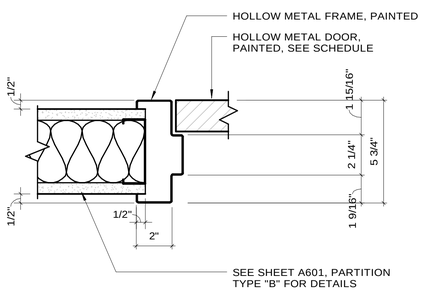
D 4 DOOR HEAD DETAIL @ INT CMU

3" = 1'-0"



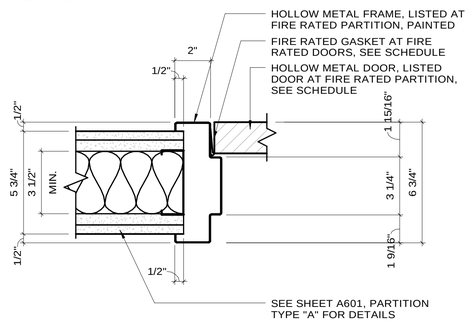
D 1 DOOR HEAD DETAIL @ EXT CMU

3" = 1'-0"



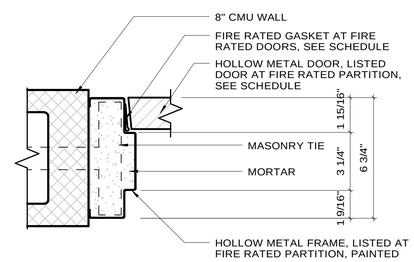
D 11 DOOR JAMB DETAIL @ INT RR

3" = 1'-0"



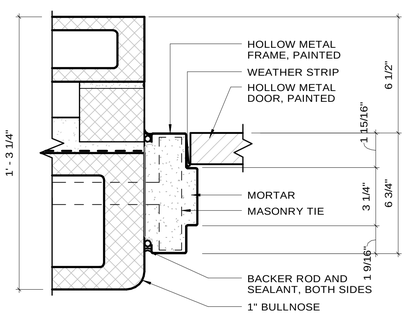
D 8 DOOR JAMB DETAIL @ INT GWB

3" = 1'-0"



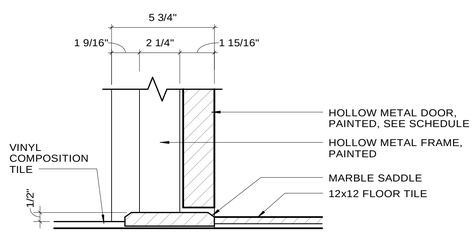
D 5 DOOR JAMB DETAIL @ INT CMU

3" = 1'-0"



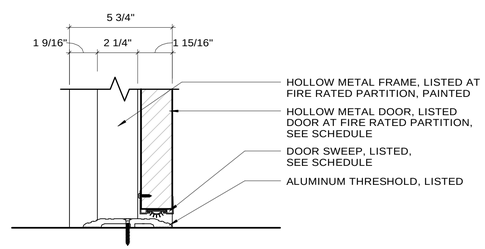
D 2 DOOR JAMB DETAIL @ EXT CMU

3" = 1'-0"



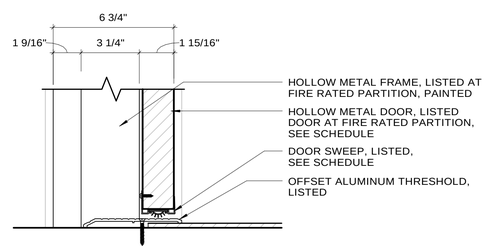
D 12 DOOR SILL DETAIL @ INT RR

3" = 1'-0"



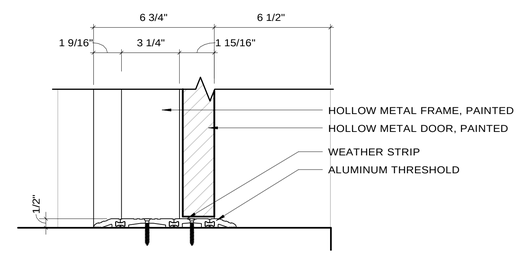
D 9 DOOR SILL DETAIL @ INT GWB

3" = 1'-0"



D 6 DOOR SILL DETAIL @ INT CMU

3" = 1'-0"



D 3 DOOR SILL DETAIL @ EXT CMU

3" = 1'-0"

2/4/2016 7:46:08 PM

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEER'S SIGNATURE. COPYRIGHT © 2013.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

HEAD, JAMB AND SILL DETAILS

60% SUBMISSION

Drawn By:	Checked By:	Date:
NW		21 JAN2016

Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No. 328250

Drawing Number A503

APPENDIX C
HAZARDS

LiRo Engineers, Inc.
A LiRo Group Company
Three Aerial Way, Syosset, NY 11791 Telephone 516.938.5476 Facsimile 516.937.5421

March 8, 2016

Ms. Alicia Shultz
Community Developer- Environmental Services
38-40 State St., 4N, Hampton Plaza
Albany, NY 12207

Re: Subsurface Investigation
Rotterdam Junction, NY

Ms. Shultz:

LiRo Engineers, Inc. (LiRo) was retained by the Governor's Office of Storm Recovery (GOSR) to conduct a subsurface investigation to characterize the soil underlying the asphalt parking lot southeast of the Rotterdam Junction Fire House in Rotterdam, New York (Site). The purpose of the subsurface investigation was to obtain preliminary data for waste characterization purposes and determine if the underlying soil is hazardous.

Field Work

The field work of this investigation was conducted by our sub-consultant firm Foit-Albert Associates (Foit-Albert) on February 5, 2016. A total of four soil borings were advanced within the proposed building footprint, as shown on Figure 1. Each soil boring was advanced to a depth of approximately 5 feet below grade (bg), which is the estimated depth of the proposed foundation footings.

The soil was visually inspected for petroleum-related contamination. No evidence of a petroleum release (e.g., dark staining, petroleum odor) was identified. The soil was also screened for organic vapors with a photoionization detector (PID). Organic vapors were not detected in any of the soil samples collected during this investigation.

Based on the field observations, the soil layers beneath the proposed development are generally uniform: 0-0.5 feet bg- asphalt, 0.5-4 feet bg- historical fill layer (black), 4-5 feet bg- clay layer (reddish brown).

A total of six samples were collected as part of this investigation. In order to develop a preliminary soil profile, one soil sample was collected from three intervals within one of the soil borings (B1). One composite sample (0-5 feet bg) was collected from each of the other three soil borings. The soil samples were collected from the following intervals:

- B1 (0-2 feet bg)
- B1 (2-4 feet bg)
- B1 (4-5 feet bg)
- B2 (0-5 feet bg)
- B3 (0-5 feet bg)
- B4 (0-5 feet bg)

Laboratory Analysis and Results

The soil samples were submitted for analysis to Alpha Analytical Laboratories of Westborough, Massachusetts. Three of the soil samples were analyzed for volatile organic compounds (VOCs) via United States Environmental Protection Agency (USEPA) Method 8260, semi-volatile organic compounds (SVOCs) via USEPA Method 8270, metals via USEPA Method 6010, polychlorinated biphenyls (PCBs) via USEPA Method 8082, waste characterization parameters (corrosivity, ignitability, reactivity, paint filter, total sulfur, total organic halides), and toxicity via toxicity leachate procedure (TCLP) for VOCs, SVOCs, metals via USEPA Method 3050. The remaining three soil samples were analyzed for VOCs, SVOCs, and metals in accordance with the methodology referenced above.

The analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Part 375 Unrestricted Use soil cleanup objectives (UUSCOs) and Restricted Use (Commercial) Use soil cleanup objectives (RRUSCOs). The samples analyzed for toxicity via TCLP are compared to USEPA's Maximum Concentration of Contaminants for Toxicity Characteristic. The laboratory report and the chain of custody are included as Attachment 1.

VOCs

No VOCs were detected in any of the soil samples collected from the Site.

SVOCs

Several SVOCs (e.g., 2-methylnapthalene, acenaphthene, acenaphythylene, anthracene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, dibenzofuran, fluoranthene, fluorine, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene) were detected in the soil samples at concentrations below their respective UUSCOs except for one SVOC (chrysene), which was detected in B3 (0-5') at a concentration of 1,700 ug/kg, (UUSCO- 1,000 ug/kg). No SVOCs were detected at concentrations exceeding the RRUSCOs.

Metals

Several metals (e.g., arsenic, barium, chromium, lead, mercury, selenium) were detected in the soil samples collected from the Site. Arsenic (max. concentration- 18 mg/kg), lead (max. concentration- 98 mg/kg), and mercury (max. concentration-0.78 mg/kg) were detected in excess of their respective UUSCOs. No metals were detected at concentrations exceeding the RRUSCOs.

PCBs

Aroclor 1262 was detected in B2 (18.6 ug/kg) at a concentration below its respective UUSCO (100 ug/kg). No PCBs were detected at concentrations exceeding the RRUSCOs.

Waste Characterization Parameters

Toxicity- None of the soil samples exceeded the USEPA Maximum Concentration of Contaminants for Toxicity as a result of TCLP analysis.

Reactivity, Ignitability, Corrosivity- None of these hazardous waste indicators were identified during laboratory analysis.

Discussion and Conclusion

A total of six soil samples were collected from the soil underlying the lot adjacent to the Rotterdam Fire House. The analytical results identified SVOCs, specifically polyaromatic hydrocarbons (PAHs), and metals in the subsurface soil at concentrations below the applicable SCOs for the Site (Restricted Use-Commercial). The presence of PAHs and metals is likely attributable to the historical fill of undocumented origin. In addition, none of the soil samples collected from the Site exhibited hazardous waste characteristics as a result of the analysis for toxicity, corrosivity, reactivity, and ignitability.

The historical fill underlying the Site was tested for general waste characterization parameters. As a result of the construction activities (e.g., soil excavation for the foundation footings), the excavated soil will likely need to be tested again depending on the permit requirements of any proposed disposal facility. Although the historical fill underlying the Site is not hazardous, the excavated material should be disposed of in accordance with the applicable local, State, and Federal regulations.

Should you have any questions, or require further information, please feel free to contact me at 516-595-2905.

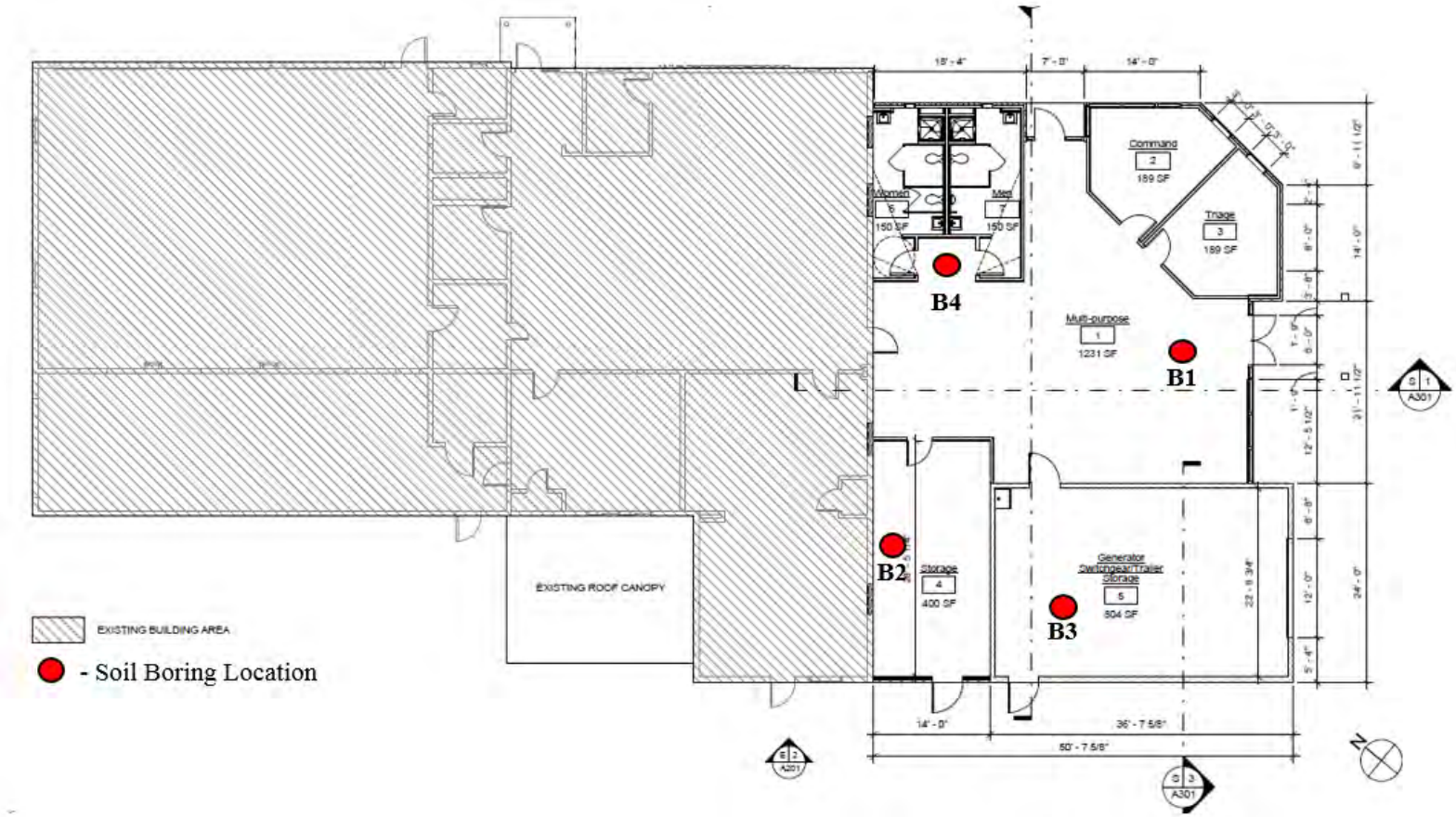
Sincerely,

LiRo Engineers, Inc.

Maria Drakos
Project Scientist

Attachments

Figure



LiRo-Engineers, Inc.
Three Aerial Way
Syosset, New York

SOIL BORING LOCATION MAP

FIGURE NO.

1

Tables

Table 1- Summary of VOCs in Soil
Rotterdam Junction Firehouse Expansion, Rotterdam, NY

SAMPLE ID				B1:0-2'		B1:2-4'		B1:5'		B2: C: 0-4'		B3: C: 0-4'		B3: C: 0-4'		B4: C: 0-5'	
SAMPLING DATE				2/5/2016		2/5/2016		2/5/2016		2/5/2016		2/5/2016		2/5/2016		2/5/2016	
	NYSDEC Part 375 Unrestricted Use	NYSDEC Part 375 Restricted Use (Commercial)	Units		Qual		Qual		Qual		Qual		Qual		Qual		Qual
1,1,1,2-Tetrachloroethane			ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
1,1,1-Trichloroethane	680	500000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
1,1,2,2-Tetrachloroethane			ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
1,1,2-Trichloroethane			ug/kg	69	U	51	U	39	U	0.82	U	1.1	U	1	U	50	U
1,1-Dichloroethane	270	240000	ug/kg	69	U	51	U	39	U	0.82	U	1.1	U	1	U	50	U
1,1-Dichloroethene	330	500000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
1,1-Dichloropropene			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
1,2,3-Trichlorobenzene			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
1,2,3-Trichloropropane			ug/kg	460	U	340	U	260	U	5.5	U	7.4	U	6.8	U	340	U
1,2,4,5-Tetramethylbenzene			ug/kg	180	U	140	U	100	U	2.2	U	3	U	2.7	U	130	U
1,2,4-Trichlorobenzene			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
1,2,4-Trimethylbenzene	3600	190000	ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
1,2-Dibromo-3-chloropropane			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
1,2-Dibromoethane			ug/kg	180	U	140	U	100	U	2.2	U	3	U	2.7	U	130	U
1,2-Dichlorobenzene	1100	500000	ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
1,2-Dichloroethane	20	30000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
1,2-Dichloroethene, Total			ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
1,2-Dichloropropane			ug/kg	160	U	120	U	90	U	1.9	U	2.6	U	2.4	U	120	U
1,3,5-Trimethylbenzene	8400	190000	ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
1,3-Dichlorobenzene	2400	280000	ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
1,3-Dichloropropane			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
1,3-Dichloropropene, Total			ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
1,4-Dichlorobenzene	1800	130000	ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
1,4-Dioxane	100	130000	ug/kg	4600	U	3400	U	2600	U	55	U	74	U	68	U	3400	U
2,2-Dichloropropane			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
2-Butanone	120	500000	ug/kg	460	U	340	U	260	U	5.5	U	7.4	U	6.8	U	340	U
2-Hexanone			ug/kg	460	U	340	U	260	U	5.5	U	7.4	U	6.8	U	340	U
4-Methyl-2-pentanone			ug/kg	460	U	340	U	260	U	5.5	U	7.4	U	6.8	U	340	U
Acetone	50	500000	ug/kg	460	U	340	U	260	U	5.5	U	7.4	U	6.8	U	340	U
Acrylonitrile			ug/kg	460	U	340	U	260	U	5.5	U	7.4	U	6.8	U	340	U
Benzene	60	44000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Bromobenzene			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
Bromochloromethane			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
Bromodichloromethane			ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Bromoform			ug/kg	180	U	140	U	100	U	2.2	U	3	U	2.7	U	130	U
Bromomethane			ug/kg	92	U	68	U	52	U	1.1	U	1.5	U	1.4	U	67	U
Carbon disulfide			ug/kg	460	U	340	U	260	U	5.5	U	7.4	U	6.8	U	340	U
Carbon tetrachloride	760	22000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Chlorobenzene	1100	500000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Chloroethane			ug/kg	92	U	68	U	52	U	1.1	U	1.5	U	1.4	U	67	U
Chloroform	370	350000	ug/kg	69	U	51	U	39	U	0.82	U	1.1	U	1	U	50	U
Chloromethane			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U

Table 1- Summary of VOCs in Soil
Rotterdam Junction Firehouse Expansion, Rotterdam, NY

SAMPLE ID				**B1:0-2'**		**B1:2-4'**		**B1:5'**		**B2: C: 0-4'**		**B3: C: 0-4'**		**B3: C: 0-4'**		**B4: C: 0-5'**	
SAMPLING DATE				**2/5/2016**		**2/5/2016**		**2/5/2016**		**2/5/2016**		**2/5/2016**		**2/5/2016**		**2/5/2016**	
	NYSDEC Part 375 Unrestricted Use	NYSDEC Part 375 Restricted Use (Commercial)	**Units**		**Qual**		**Qual**		**Qual**		**Qual**		**Qual**		**Qual**		**Qual**
cis-1,2-Dichloroethene	250	500000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
cis-1,3-Dichloropropene			ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Dibromochloromethane			ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Dibromomethane			ug/kg	460	U	340	U	260	U	5.5	U	7.4	U	6.8	U	340	U
Dichlorodifluoromethane			ug/kg	460	U	340	U	260	U	5.5	U	7.4	U	6.8	U	340	U
Ethyl ether			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
Ethylbenzene	1000	390000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Hexachlorobutadiene			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
Isopropylbenzene			ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Methyl tert butyl ether	930	500000	ug/kg	92	U	68	U	52	U	1.1	U	1.5	U	1.4	U	67	U
Methylene chloride	50	500000	ug/kg	460	U	340	U	260	U	5.5	U	7.4	U	6.8	U	340	U
n-Butylbenzene	12000	500000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
n-Propylbenzene	3900	500000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Naphthalene	12000	500000	ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
o-Chlorotoluene			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
o-Xylene			ug/kg	92	U	68	U	52	U	1.1	U	1.5	U	1.4	U	67	U
p-Chlorotoluene			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
p-Diethylbenzene			ug/kg	180	U	140	U	100	U	2.2	U	3	U	2.7	U	130	U
p-Ethyltoluene			ug/kg	180	U	140	U	100	U	2.2	U	3	U	2.7	U	130	U
p-Isopropyltoluene			ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
p/m-Xylene			ug/kg	92	U	68	U	52	U	1.1	U	1.5	U	1.4	U	67	U
sec-Butylbenzene	11000	500000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Styrene			ug/kg	92	U	68	U	52	U	1.1	U	1.5	U	1.4	U	67	U
tert-Butylbenzene	5900	500000	ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
Tetrachloroethene	1300	150000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Toluene	700	500000	ug/kg	69	U	51	U	39	U	0.82	U	1.1	U	1	U	50	U
trans-1,2-Dichloroethene	190	500000	ug/kg	69	U	51	U	39	U	0.82	U	1.1	U	1	U	50	U
trans-1,3-Dichloropropene			ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
trans-1,4-Dichloro-2-butene			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
Trichloroethene	470	200000	ug/kg	46	U	34	U	26	U	0.55	U	0.74	U	0.68	U	34	U
Trichlorofluoromethane			ug/kg	230	U	170	U	130	U	2.7	U	3.7	U	3.4	U	170	U
Vinyl acetate			ug/kg	460	U	340	U	260	U	5.5	U	7.4	U	6.8	U	340	U
Vinyl chloride	20	13000	ug/kg	92	U	68	U	52	U	1.1	U	1.5	U	1.4	U	67	U
Xylenes, Total	260	500000	ug/kg	92	U	68	U	52	U	1.1	U	1.5	U	1.4	U	67	U

Notes:
J- Estimated Value
U- Compound was analyzed for but not detected
mg/kg- Milligrams per kilogram
ug/kg- Micrograms per kilogram

Highlighted- indicates that analyte was detected above the NYSDEC Part 375 Unrestricted Use SCOs

Table 2- Summary of SVOCs in Soil
Rotterdam Junction Firehouse Expansion, Rotterdam, NY

SAMPLE ID				B1:0-2'		B1:2-4'		B1:5'		B2: C: 0-4'		B3: C: 0-4'		B4: C: 0-5'	
SAMPLING DATE				2/5/2016		2/5/2016		2/5/2016		2/5/2016		2/5/2016		2/5/2016	
	NYSDEC Part 375 Unrestricted Use	NYSDEC Part 375 Restricted Use (Commercial)	Units		Qual		Qual		Qual		Qual		Qual		Qual
1,2,4,5-Tetrachlorobenzene			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
1,2,4-Trichlorobenzene			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
1,2-Dichlorobenzene	1100	500000	ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
1,3-Dichlorobenzene	2400	280000	ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
1,4-Dichlorobenzene	1800	130000	ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
2,4,5-Trichlorophenol			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
2,4,6-Trichlorophenol			ug/kg	120	U	120	U	120	U	110	U	120	U	120	U
2,4-Dichlorophenol			ug/kg	180	U	170	U	180	U	170	U	180	U	180	U
2,4-Dimethylphenol			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
2,4-Dinitrophenol			ug/kg	970	U	930	U	940	U	920	U	970	U	950	U
2,4-Dinitrotoluene			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
2,6-Dinitrotoluene			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
2-Chloronaphthalene			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
2-Chlorophenol			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
2-Methylnaphthalene			ug/kg	210	J	230	U	240	U	140	J	780		56	J
2-Methylphenol	330	500000	ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
2-Nitroaniline			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
2-Nitrophenol			ug/kg	440	U	420	U	420	U	410	U	440	U	430	U
3,3'-Dichlorobenzidine			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
3-Methylphenol/4-Methylphenol	330	500000	ug/kg	290	U	280	U	280	U	270	U	290	U	280	U
3-Nitroaniline			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
4,6-Dinitro-o-cresol			ug/kg	520	U	500	U	510	U	500	U	520	U	510	U
4-Bromophenyl phenyl ether			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
4-Chloroaniline			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
4-Chlorophenyl phenyl ether			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
4-Nitroaniline			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
4-Nitrophenol			ug/kg	280	U	270	U	270	U	270	U	280	U	280	U
Acenaphthene	20000	500000	ug/kg	160	U	150	U	160	U	28	J	160	U	160	U
Acenaphthylene	100000	500000	ug/kg	160	U	150	U	160	U	53	J	160	U	160	U
Acetophenone			ug/kg	200	U	190	U	200	U	41	J	210		200	U
Anthracene	100000	500000	ug/kg	120	U	120	U	120	U	64	J	70	J	120	U
Benzo(a)anthracene	1000	5600	ug/kg	61	J	120	U	120	U	330		310		42	J
Benzo(a)pyrene	1000	1000	ug/kg	160	U	150	U	160	U	330		140	J	160	U
Benzo(b)fluoranthene	1000	5600	ug/kg	110	J	120	U	120	U	490		510		58	J
Benzo(ghi)perylene	100000	500000	ug/kg	42	J	150	U	160	U	240		120	J	27	J
Benzo(k)fluoranthene	800	56000	ug/kg	120	U	120	U	120	U	180		50	J	120	U
Benzoic Acid			ug/kg	650	U	620	U	640	U	620	U	340	J	640	U
Benzyl Alcohol			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
Biphenyl			ug/kg	460	U	440	U	450	U	430	U	120	J	450	U
Bis(2-chloroethoxy)methane			ug/kg	220	U	210	U	210	U	210	U	220	U	210	U
Bis(2-chloroethyl)ether			ug/kg	180	U	170	U	180	U	170	U	180	U	180	U
Bis(2-chloroisopropyl)ether			ug/kg	240	U	230	U	240	U	230	U	240	U	240	U
Bis(2-Ethylhexyl)phthalate			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
Butyl benzyl phthalate			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
Carbazole			ug/kg	200	U	190	U	200	U	28	J	200	U	200	U
Chrysene	1000	56000	ug/kg	150		120	U	120	U	400		1700		75	J
Di-n-butylphthalate			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
Di-n-octylphthalate			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U

Table 2- Summary of SVOCs in Soil
Rotterdam Junction Firehouse Expansion, Rotterdam, NY

SAMPLE ID				**B1:0-2'**		**B1:2-4'**		**B1:5'**		**B2: C: 0-4'**		**B3: C: 0-4'**		**B4: C: 0-5'**	
SAMPLING DATE				**2/5/2016**		**2/5/2016**		**2/5/2016**		**2/5/2016**		**2/5/2016**		**2/5/2016**	
	NYSDEC Part 375 Unrestricted Use	NYSDEC Part 375 Restricted Use (Commercial)	**Units**		**Qual**		**Qual**		**Qual**		**Qual**		**Qual**		**Qual**
Dibenzo(a,h)anthracene	330	560	ug/kg	120	U	120	U	120	U	75	J	89	J	120	U
Dibenzofuran	7000	350000	ug/kg	58	J	190	U	200	U	59	J	240		200	U
Diethyl phthalate			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
Dimethyl phthalate			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
Fluoranthene	100000	500000	ug/kg	93	J	120	U	120	U	490		360		65	J
Fluorene	30000	500000	ug/kg	200	U	190	U	200	U	24	J	200	U	200	U
Hexachlorobenzene	330	6000	ug/kg	120	U	120	U	120	U	110	U	120	U	120	U
Hexachlorobutadiene			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
Hexachlorocyclopentadiene			ug/kg	580	U	550	U	560	U	540	U	580	U	560	U
Hexachloroethane			ug/kg	160	U	150	U	160	U	150	U	160	U	160	U
Indeno(1,2,3-cd)Pyrene	500	5600	ug/kg	41	J	150	U	160	U	260		62	J	160	U
Isophorone			ug/kg	180	U	170	U	180	U	170	U	180	U	180	U
n-Nitrosodi-n-propylamine			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
Naphthalene	12000	500000	ug/kg	120	J	190	U	200	U	110	J	460		35	J
Nitrobenzene		69000	ug/kg	180	U	170	U	180	U	170	U	180	U	180	U
NitrosoDiPhenylAmine(NDPA)/DPA			ug/kg	160	U	150	U	160	U	150	U	160	U	160	U
P-Chloro-M-Cresol			ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
Pentachlorophenol	800	6700	ug/kg	160	U	150	U	160	U	150	U	160	U	160	U
Phenanthrene	100000	500000	ug/kg	230		43	J	120	U	320		940		89	J
Phenol	330	500000	ug/kg	200	U	190	U	200	U	190	U	200	U	200	U
Pyrene	100000	500000	ug/kg	92	J	120	U	120	U	430		560		64	J

Notes:
J- Estimated Value
U- Compound was analyzed for but not detected
mg/kg- Milligrams per kilogram
ug/kg- Micrograms per kilogram

Highlighted- indicates that analyte was detected above the NYSDEC Part 375 Unrestricted Use SCOs

Table 3- Summary of Metals in Soil
Rotterdam Junction Firehouse Expansion, Rotterdam, NY

SAMPLE ID				B1:0-2'		B1:2-4'		B1:5'		B2: C: 0-4'		B3: C: 0-4'		B4: C: 0-5'	
SAMPLING DATE				2/5/2016		2/5/2016		2/5/2016		2/5/2016		2/5/2016		2/5/2016	
	NYSDEC Part 375 Unrestricted Use	NYSDEC Part 375 Restricted Use (Commercial)	Units		Qual		Qual		Qual		Qual		Qual		Qual
Arsenic, Total	13	16	mg/kg	7.1		6.1		5.4		14		18		5.6	
Barium, Total	350	400	mg/kg	55		57		33		57		73		56	
Cadmium, Total	2.5	9.3	mg/kg	0.49	U	0.47	U	0.47	U	0.46	U	0.48	U	0.47	U
Chromium, Total			mg/kg	11		12		14		10		7		11	
Lead, Total	63	1000	mg/kg	39		18		2.3	U	87		98		25	
Mercury, Total	0.18	2.8	mg/kg	0.18		0.09		0.04	J	0.2		0.19		0.78	
Selenium, Total	3.9	1500	mg/kg	0.56	J	0.54	J	0.94	U	1		2		0.42	J
Silver, Total	2	1500	mg/kg	0.49	U	0.47	U	0.47	U	0.46	U	0.48	U	0.47	U

Notes:
J- Estimated Value
U- Compound was analyzed for but not detected
mg/kg- Milligrams per kilogram
ug/kg- Micrograms per kilogram

Highlighted- indicates that analyte was detected above the NYSDEC Part 375 Unrestricted Use SCOs

Table 4- Summary of PCBs in Soil
Rotterdam Junction Firehouse Expansion, Rotterdam, NY

SAMPLE ID				B1:0-2'		B1:2-4'		B1:5'		B2: C: 0-4'		B3: C: 0-4'		B4: C: 0-5'	
SAMPLING DATE				2/5/2016		2/5/2016		2/5/2016		2/5/2016		2/5/2016		2/5/2016	
	NYSDEC Part 375 Unrestricted Use	NYSDEC Part 375 Restricted Use (Commercial)	Units		Qual		Qual		Qual		Qual		Qual		Qual
Aroclor 1016	100	1000	ug/kg	39.8	U	39.4	U	39	U	37.7	U	40.4	U	37.9	U
Aroclor 1221	100	1000	ug/kg	39.8	U	39.4	U	39	U	37.7	U	40.4	U	37.9	U
Aroclor 1232	100	1000	ug/kg	39.8	U	39.4	U	39	U	37.7	U	40.4	U	37.9	U
Aroclor 1242	100	1000	ug/kg	39.8	U	39.4	U	39	U	37.7	U	40.4	U	37.9	U
Aroclor 1248	100	1000	ug/kg	39.8	U	39.4	U	39	U	37.7	U	40.4	U	37.9	U
Aroclor 1254	100	1000	ug/kg	39.8	U	39.4	U	39	U	37.7	U	40.4	U	37.9	U
Aroclor 1260	100	1000	ug/kg	39.8	U	39.4	U	39	U	18.6	J	40.4	U	37.9	U
Aroclor 1262	100	1000	ug/kg	39.8	U	39.4	U	39	U	37.7	U	40.4	U	37.9	U
Aroclor 1268	100	1000	ug/kg	39.8	U	39.4	U	39	U	37.7	U	40.4	U	37.9	U
PCBs, Total			ug/kg	39.8	U	39.4	U	39	U	18.6	J	40.4	U	37.9	U

Notes:
J- Estimated Value
U- Compound was analyzed for but not detected
mg/kg- Milligrams per kilogram
ug/kg- Micrograms per kilogram

Highlighted- indicates that analyte was detected above the NYSDEC Part 375 Unrestricted Use SCOs

Table 5- Summary of VOCs via TCLP in Soil
Rotterdam Junction Firehouse Expansion, Rotterdam, NY

SAMPLE ID			**B1:0-2'**		**B1:2-4'**		**B1:5'**	
SAMPLING DATE			**2/5/2016**		**2/5/2016**		**2/5/2016**	
	EPA-TCLP	**Units**		**Qual**		**Qual**		**Qual**
1,1-Dichloroethene	700	ug/l	5	U	5	U	5	U
1,2-Dichloroethane	500	ug/l	5	U	5	U	5	U
1,4-Dichlorobenzene	7500	ug/l	25	U	25	U	25	U
2-Butanone	200000	ug/l	50	U	50	U	50	U
Benzene	500	ug/l	5	U	5	U	5	U
Carbon tetrachloride	500	ug/l	5	U	5	U	5	U
Chlorobenzene	100000	ug/l	5	U	5	U	5	U
Chloroform	6000	ug/l	7.5	U	7.5	U	7.5	U
Tetrachloroethene	700	ug/l	5	U	5	U	5	U
Trichloroethene	500	ug/l	5	U	5	U	5	U
Vinyl chloride	200	ug/l	10	U	10	U	10	U

Notes:
J- Estimated Value
U- Compound was analyzed for but not detected
mg/kg- Milligrams per kilogram
ug/kg- Micrograms per kilogram

Highlighted- indicates that analyte was detected above the USEPA Maximum Concentration of Contaminants for Toxicity Characteristic

Table 6- Summary of SVOCs via TCLP in Soil
Rotterdam Junction Firehouse Expansion, Rotterdam, NY

SAMPLE ID			B1:0-2'		B1:2-4'		B1:5'	
SAMPLING DATE			2/5/2016		2/5/2016		2/5/2016	
	EPA-TCLP	Units		Qual		Qual		Qual
2,4,5-Trichlorophenol	400000	ug/l	25	U	25	U	25	U
2,4,6-Trichlorophenol	2000	ug/l	25	U	25	U	25	U
2,4-Dinitrotoluene	130	ug/l	25	U	25	U	25	U
2-Methylphenol	200000	ug/l	25	U	25	U	25	U
3-Methylphenol/4-Methylphenol	200000	ug/l	25	U	25	U	25	U
Hexachlorobenzene	130	ug/l	10	U	10	U	10	U
Hexachlorobutadiene	500	ug/l	10	U	10	U	10	U
Hexachloroethane	3000	ug/l	10	U	10	U	10	U
Nitrobenzene	2000	ug/l	10	U	10	U	10	U
Pentachlorophenol	100000	ug/l	50	U	50	U	50	U
Pyridine	5000	ug/l	25	U	25	U	25	U

Notes:
J- Estimated Value
U- Compound was analyzed for but not detected
mg/kg- Milligrams per kilogram
ug/kg- Micrograms per kilogram

Highlighted- indicates that analyte was detected above the USEPA Maximum Concentration of Contaminants for Toxicity Characteristic

Table 7- Summary of Metals via TCLP in Soil
Rotterdam Junction Firehouse Expansion, Rotterdam, NY

SAMPLE ID			**B1:0-2'**		**B1:2-4'**		**B1:5'**	
SAMPLING DATE			**2/5/2016**		**2/5/2016**		**2/5/2016**	
	EPA-TCLI	**Units**		**Qual**		**Qual**		**Qual**
Arsenic, TCLP	5	mg/l	1	U	1	U	1	U
Barium, TCLP	100	mg/l	0.24	J	0.24	J	0.17	J
Cadmium, TCLP	1	mg/l	0.1	U	0.1	U	0.1	U
Chromium, TCLP	5	mg/l	0.2	U	0.2	U	0.2	U
Lead, TCLP	5	mg/l	0.5	U	0.5	U	0.5	U
Mercury, TCLP	0.2	mg/l	0.001	U	0.001	U	0.001	U
Selenium, TCLP	1	mg/l	0.5	U	0.5	U	0.5	U
Silver, TCLP	5	mg/l	0.1	U	0.1	U	0.1	U

Notes:
J- Estimated Value
U- Compound was analyzed for but not detected
mg/kg- Milligrams per kilogram
ug/kg- Micrograms per kilogram

Highlighted- indicates that analyte was detected above the USEPA Maximum Concentration of Contaminants for Toxicity Characteristic

Table 8- Summary of Waste Characterization Parameters in Soil
Rotterdam Junction Firehouse Expansion, Rotterdam, NY

SAMPLE ID		**B1:0-2'**		**B1:2-4'**		**B1:5'**		**B2: C: 0-4'**		**B3: C: 0-4'**		**B4: C: 0-5'**	
SAMPLING DATE		**2/5/2016**		**2/5/2016**		**2/5/2016**		**2/5/2016**		**2/5/2016**		**2/5/2016**	
	Units		**Qual**		**Qual**		**Qual**		**Qual**		**Qual**		**Qual**
pH (H)	SU	7.1		6.5		6.6		7.3		6.8		7.8	
Solids, Total	%	80.2		84.2		84		85.2		80.5		83.5	
Cyanide, Reactive	mg/kg	10	U	10	U	10	U	10	U	10	U	10	U
Halides, Extractable Organic	mg/kg	24.9	U	23.8	U	23.8	U	23.5	U	24.8	U	24	U
Sulfide, Reactive	mg/kg	10	U	10	U	10	U	10	U	10	U	10	U
Ignitability		NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

Notes:
J- Estimated value
U- Compound was analyzed for but not detected
mg/kg- Milligrams per kilogram
ug/kg- Micrograms per kilogram

Bold- indicates that analyte was detected

Attachment 1

ANALYTICAL REPORT

Lab Number:	L1603223
Client:	The LiRo Group 3 Aerial Way Syosset, NY 11791
ATTN:	Maria Drakos
Phone:	(516) 214-8191
Project Name:	ROTTERDAM JUNCTION FIRE HOUSE
Project Number:	Not Specified
Report Date:	02/25/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1603223-01	B1:0-2'	SOIL	ROTTERDAM, NY	02/05/16 09:35	02/05/16
L1603223-02	B1:2-4'	SOIL	ROTTERDAM, NY	02/05/16 09:40	02/05/16
L1603223-03	B1:5'	SOIL	ROTTERDAM, NY	02/05/16 09:45	02/05/16
L1603223-04	B2: C: 0-4'	SOIL	ROTTERDAM, NY	02/05/16 09:15	02/05/16
L1603223-05	B3: C: 0-4'	SOIL	ROTTERDAM, NY	02/05/16 10:30	02/05/16
L1603223-06	B4: C: 0-5'	SOIL	ROTTERDAM, NY	02/05/16 11:30	02/05/16

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

Case Narrative (continued)

Report Submission

The analysis of Sulfur was subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L1603223-01, -02, -03, and -06: The analysis of Volatile Organics by EPA Method 5035/8260 Low Level could not be performed due to excessive sample weight. A High Level analysis was performed and is reported.
L1603223-05: The internal standard (IS) responses for chlorobenzene-d5 (45%) and 1,4-dichlorobenzene-d4 (12%), and the surrogate recoveries for toluene-d8 (148%) and 4-bromofluorobenzene (196%) were outside the acceptance criteria; however, re-analysis achieved similar results: chlorobenzene-d5 (28%), 1,4-dichlorobenzene-d4 (6%), toluene-d8 (173%), and 4-bromofluorobenzene (227%). The results of both analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 02/25/16

ORGANICS

VOLATILES

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-01
Client ID: B1:0-2'
Sample Location: ROTTERDAM, NY
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/10/16 11:09
Analyst: MM
Percent Solids: 80%
TCLP/SPLP Ext. Date: 02/09/16 12:31

Date Collected: 02/05/16 09:35
Date Received: 02/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	1.6	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	0.70	10
1,1-Dichloroethene	ND		ug/l	5.0	1.4	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	78		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	109		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-01	Date Collected:	02/05/16 09:35
Client ID:	B1:0-2'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	02/09/16 15:01		
Analyst:	BN		
Percent Solids:	80%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	460	51.	1
1,1-Dichloroethane	ND		ug/kg	69	4.0	1
Chloroform	ND		ug/kg	69	17.	1
Carbon tetrachloride	ND		ug/kg	46	9.7	1
1,2-Dichloropropane	ND		ug/kg	160	10.	1
Dibromochloromethane	ND		ug/kg	46	7.1	1
1,1,2-Trichloroethane	ND		ug/kg	69	14.	1
Tetrachloroethene	ND		ug/kg	46	6.5	1
Chlorobenzene	ND		ug/kg	46	16.	1
Trichlorofluoromethane	ND		ug/kg	230	18.	1
1,2-Dichloroethane	ND		ug/kg	46	5.2	1
1,1,1-Trichloroethane	ND		ug/kg	46	5.1	1
Bromodichloromethane	ND		ug/kg	46	8.0	1
trans-1,3-Dichloropropene	ND		ug/kg	46	5.6	1
cis-1,3-Dichloropropene	ND		ug/kg	46	5.4	1
1,3-Dichloropropene, Total	ND		ug/kg	46	5.4	1
1,1-Dichloropropene	ND		ug/kg	230	6.5	1
Bromoform	ND		ug/kg	180	11.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	46	4.6	1
Benzene	ND		ug/kg	46	5.4	1
Toluene	ND		ug/kg	69	9.0	1
Ethylbenzene	ND		ug/kg	46	5.9	1
Chloromethane	ND		ug/kg	230	14.	1
Bromomethane	ND		ug/kg	92	16.	1
Vinyl chloride	ND		ug/kg	92	5.4	1
Chloroethane	ND		ug/kg	92	15.	1
1,1-Dichloroethene	ND		ug/kg	46	12.	1
trans-1,2-Dichloroethene	ND		ug/kg	69	9.8	1
Trichloroethene	ND		ug/kg	46	5.8	1
1,2-Dichlorobenzene	ND		ug/kg	230	7.1	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-01 Date Collected: 02/05/16 09:35

Client ID: B1:0-2' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	230	6.2	1
1,4-Dichlorobenzene	ND		ug/kg	230	6.4	1
Methyl tert butyl ether	ND		ug/kg	92	3.9	1
p/m-Xylene	ND		ug/kg	92	9.1	1
o-Xylene	ND		ug/kg	92	7.9	1
Xylenes, Total	ND		ug/kg	92	7.9	1
cis-1,2-Dichloroethene	ND		ug/kg	46	6.6	1
1,2-Dichloroethene, Total	ND		ug/kg	46	6.6	1
Dibromomethane	ND		ug/kg	460	7.6	1
Styrene	ND		ug/kg	92	18.	1
Dichlorodifluoromethane	ND		ug/kg	460	8.8	1
Acetone	ND		ug/kg	460	48.	1
Carbon disulfide	ND		ug/kg	460	51.	1
2-Butanone	ND		ug/kg	460	12.	1
Vinyl acetate	ND		ug/kg	460	6.1	1
4-Methyl-2-pentanone	ND		ug/kg	460	11.	1
1,2,3-Trichloropropane	ND		ug/kg	460	7.5	1
2-Hexanone	ND		ug/kg	460	31.	1
Bromochloromethane	ND		ug/kg	230	13.	1
2,2-Dichloropropane	ND		ug/kg	230	10.	1
1,2-Dibromoethane	ND		ug/kg	180	8.1	1
1,3-Dichloropropane	ND		ug/kg	230	6.7	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	46	15.	1
Bromobenzene	ND		ug/kg	230	9.6	1
n-Butylbenzene	ND		ug/kg	46	5.3	1
sec-Butylbenzene	ND		ug/kg	46	5.6	1
tert-Butylbenzene	ND		ug/kg	230	6.2	1
o-Chlorotoluene	ND		ug/kg	230	7.4	1
p-Chlorotoluene	ND		ug/kg	230	6.1	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	230	18.	1
Hexachlorobutadiene	ND		ug/kg	230	10.	1
Isopropylbenzene	ND		ug/kg	46	4.8	1
p-Isopropyltoluene	ND		ug/kg	46	5.8	1
Naphthalene	ND		ug/kg	230	6.4	1
Acrylonitrile	ND		ug/kg	460	24.	1
n-Propylbenzene	ND		ug/kg	46	5.0	1
1,2,3-Trichlorobenzene	ND		ug/kg	230	6.8	1
1,2,4-Trichlorobenzene	ND		ug/kg	230	8.4	1
1,3,5-Trimethylbenzene	ND		ug/kg	230	6.6	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-01 Date Collected: 02/05/16 09:35

Client ID: B1:0-2' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	230	6.5	1
1,4-Dioxane	ND		ug/kg	4600	670	1
p-Diethylbenzene	ND		ug/kg	180	7.4	1
p-Ethyltoluene	ND		ug/kg	180	5.7	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	180	6.0	1
Ethyl ether	ND		ug/kg	230	12.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	230	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-02
Client ID: B1:2-4'
Sample Location: ROTTERDAM, NY
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/10/16 11:42
Analyst: MM
Percent Solids: 84%
TCLP/SPLP Ext. Date: 02/09/16 12:31

Date Collected: 02/05/16 09:40
Date Received: 02/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	1.6	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	0.70	10
1,1-Dichloroethene	ND		ug/l	5.0	1.4	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	76		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	102		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-02	Date Collected:	02/05/16 09:40
Client ID:	B1:2-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	02/09/16 15:27		
Analyst:	BN		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	340	38.	1
1,1-Dichloroethane	ND		ug/kg	51	2.9	1
Chloroform	ND		ug/kg	51	13.	1
Carbon tetrachloride	ND		ug/kg	34	7.2	1
1,2-Dichloropropane	ND		ug/kg	120	7.8	1
Dibromochloromethane	ND		ug/kg	34	5.2	1
1,1,2-Trichloroethane	ND		ug/kg	51	10.	1
Tetrachloroethene	ND		ug/kg	34	4.8	1
Chlorobenzene	ND		ug/kg	34	12.	1
Trichlorofluoromethane	ND		ug/kg	170	13.	1
1,2-Dichloroethane	ND		ug/kg	34	3.9	1
1,1,1-Trichloroethane	ND		ug/kg	34	3.8	1
Bromodichloromethane	ND		ug/kg	34	5.9	1
trans-1,3-Dichloropropene	ND		ug/kg	34	4.1	1
cis-1,3-Dichloropropene	ND		ug/kg	34	4.0	1
1,3-Dichloropropene, Total	ND		ug/kg	34	4.0	1
1,1-Dichloropropene	ND		ug/kg	170	4.8	1
Bromoform	ND		ug/kg	140	8.0	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	34	3.4	1
Benzene	ND		ug/kg	34	4.0	1
Toluene	ND		ug/kg	51	6.6	1
Ethylbenzene	ND		ug/kg	34	4.3	1
Chloromethane	ND		ug/kg	170	10.	1
Bromomethane	ND		ug/kg	68	12.	1
Vinyl chloride	ND		ug/kg	68	4.0	1
Chloroethane	ND		ug/kg	68	11.	1
1,1-Dichloroethene	ND		ug/kg	34	8.9	1
trans-1,2-Dichloroethene	ND		ug/kg	51	7.2	1
Trichloroethene	ND		ug/kg	34	4.3	1
1,2-Dichlorobenzene	ND		ug/kg	170	5.2	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-02 Date Collected: 02/05/16 09:40

Client ID: B1:2-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	170	4.6	1
1,4-Dichlorobenzene	ND		ug/kg	170	4.7	1
Methyl tert butyl ether	ND		ug/kg	68	2.9	1
p/m-Xylene	ND		ug/kg	68	6.7	1
o-Xylene	ND		ug/kg	68	5.9	1
Xylenes, Total	ND		ug/kg	68	5.9	1
cis-1,2-Dichloroethene	ND		ug/kg	34	4.9	1
1,2-Dichloroethene, Total	ND		ug/kg	34	4.9	1
Dibromomethane	ND		ug/kg	340	5.6	1
Styrene	ND		ug/kg	68	14.	1
Dichlorodifluoromethane	ND		ug/kg	340	6.5	1
Acetone	ND		ug/kg	340	35.	1
Carbon disulfide	ND		ug/kg	340	38.	1
2-Butanone	ND		ug/kg	340	9.3	1
Vinyl acetate	ND		ug/kg	340	4.5	1
4-Methyl-2-pentanone	ND		ug/kg	340	8.3	1
1,2,3-Trichloropropane	ND		ug/kg	340	5.5	1
2-Hexanone	ND		ug/kg	340	23.	1
Bromochloromethane	ND		ug/kg	170	9.4	1
2,2-Dichloropropane	ND		ug/kg	170	7.7	1
1,2-Dibromoethane	ND		ug/kg	140	6.0	1
1,3-Dichloropropane	ND		ug/kg	170	5.0	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	34	11.	1
Bromobenzene	ND		ug/kg	170	7.1	1
n-Butylbenzene	ND		ug/kg	34	3.9	1
sec-Butylbenzene	ND		ug/kg	34	4.2	1
tert-Butylbenzene	ND		ug/kg	170	4.6	1
o-Chlorotoluene	ND		ug/kg	170	5.4	1
p-Chlorotoluene	ND		ug/kg	170	4.5	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	170	14.	1
Hexachlorobutadiene	ND		ug/kg	170	7.8	1
Isopropylbenzene	ND		ug/kg	34	3.5	1
p-Isopropyltoluene	ND		ug/kg	34	4.3	1
Naphthalene	ND		ug/kg	170	4.7	1
Acrylonitrile	ND		ug/kg	340	18.	1
n-Propylbenzene	ND		ug/kg	34	3.7	1
1,2,3-Trichlorobenzene	ND		ug/kg	170	5.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	6.2	1
1,3,5-Trimethylbenzene	ND		ug/kg	170	4.9	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-02 Date Collected: 02/05/16 09:40

Client ID: B1:2-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	170	4.8	1
1,4-Dioxane	ND		ug/kg	3400	490	1
p-Diethylbenzene	ND		ug/kg	140	5.4	1
p-Ethyltoluene	ND		ug/kg	140	4.2	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	140	4.4	1
Ethyl ether	ND		ug/kg	170	8.9	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	170	13.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	97		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-03
Client ID: B1:5'
Sample Location: ROTTERDAM, NY
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/10/16 12:14
Analyst: MM
Percent Solids: 84%
TCLP/SPLP Ext. Date: 02/09/16 12:31

Date Collected: 02/05/16 09:45
Date Received: 02/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	1.6	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	0.70	10
1,1-Dichloroethene	ND		ug/l	5.0	1.4	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	81		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	109		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-03	Date Collected:	02/05/16 09:45
Client ID:	B1:5'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	02/09/16 15:53		
Analyst:	BN		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	260	28.	1
1,1-Dichloroethane	ND		ug/kg	39	2.2	1
Chloroform	ND		ug/kg	39	9.6	1
Carbon tetrachloride	ND		ug/kg	26	5.4	1
1,2-Dichloropropane	ND		ug/kg	90	5.9	1
Dibromochloromethane	ND		ug/kg	26	4.0	1
1,1,2-Trichloroethane	ND		ug/kg	39	7.9	1
Tetrachloroethene	ND		ug/kg	26	3.6	1
Chlorobenzene	ND		ug/kg	26	9.0	1
Trichlorofluoromethane	ND		ug/kg	130	10.	1
1,2-Dichloroethane	ND		ug/kg	26	2.9	1
1,1,1-Trichloroethane	ND		ug/kg	26	2.9	1
Bromodichloromethane	ND		ug/kg	26	4.5	1
trans-1,3-Dichloropropene	ND		ug/kg	26	3.1	1
cis-1,3-Dichloropropene	ND		ug/kg	26	3.0	1
1,3-Dichloropropene, Total	ND		ug/kg	26	3.0	1
1,1-Dichloropropene	ND		ug/kg	130	3.6	1
Bromoform	ND		ug/kg	100	6.1	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	26	2.6	1
Benzene	ND		ug/kg	26	3.0	1
Toluene	ND		ug/kg	39	5.0	1
Ethylbenzene	ND		ug/kg	26	3.3	1
Chloromethane	ND		ug/kg	130	7.6	1
Bromomethane	ND		ug/kg	52	8.7	1
Vinyl chloride	ND		ug/kg	52	3.0	1
Chloroethane	ND		ug/kg	52	8.2	1
1,1-Dichloroethene	ND		ug/kg	26	6.8	1
trans-1,2-Dichloroethene	ND		ug/kg	39	5.5	1
Trichloroethene	ND		ug/kg	26	3.2	1
1,2-Dichlorobenzene	ND		ug/kg	130	4.0	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-03 Date Collected: 02/05/16 09:45

Client ID: B1:5' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	130	3.5	1
1,4-Dichlorobenzene	ND		ug/kg	130	3.6	1
Methyl tert butyl ether	ND		ug/kg	52	2.2	1
p/m-Xylene	ND		ug/kg	52	5.1	1
o-Xylene	ND		ug/kg	52	4.4	1
Xylenes, Total	ND		ug/kg	52	4.4	1
cis-1,2-Dichloroethene	ND		ug/kg	26	3.7	1
1,2-Dichloroethene, Total	ND		ug/kg	26	3.7	1
Dibromomethane	ND		ug/kg	260	4.2	1
Styrene	ND		ug/kg	52	10.	1
Dichlorodifluoromethane	ND		ug/kg	260	4.9	1
Acetone	ND		ug/kg	260	27.	1
Carbon disulfide	ND		ug/kg	260	28.	1
2-Butanone	ND		ug/kg	260	7.0	1
Vinyl acetate	ND		ug/kg	260	3.4	1
4-Methyl-2-pentanone	ND		ug/kg	260	6.3	1
1,2,3-Trichloropropane	ND		ug/kg	260	4.2	1
2-Hexanone	ND		ug/kg	260	17.	1
Bromochloromethane	ND		ug/kg	130	7.1	1
2,2-Dichloropropane	ND		ug/kg	130	5.8	1
1,2-Dibromoethane	ND		ug/kg	100	4.5	1
1,3-Dichloropropane	ND		ug/kg	130	3.8	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	26	8.2	1
Bromobenzene	ND		ug/kg	130	5.4	1
n-Butylbenzene	ND		ug/kg	26	3.0	1
sec-Butylbenzene	ND		ug/kg	26	3.2	1
tert-Butylbenzene	ND		ug/kg	130	3.5	1
o-Chlorotoluene	ND		ug/kg	130	4.1	1
p-Chlorotoluene	ND		ug/kg	130	3.4	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	130	10.	1
Hexachlorobutadiene	ND		ug/kg	130	5.9	1
Isopropylbenzene	ND		ug/kg	26	2.7	1
p-Isopropyltoluene	ND		ug/kg	26	3.2	1
Naphthalene	ND		ug/kg	130	3.6	1
Acrylonitrile	ND		ug/kg	260	13.	1
n-Propylbenzene	ND		ug/kg	26	2.8	1
1,2,3-Trichlorobenzene	ND		ug/kg	130	3.8	1
1,2,4-Trichlorobenzene	ND		ug/kg	130	4.7	1
1,3,5-Trimethylbenzene	ND		ug/kg	130	3.7	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-03 Date Collected: 02/05/16 09:45

Client ID: B1:5' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	130	3.6	1
1,4-Dioxane	ND		ug/kg	2600	370	1
p-Diethylbenzene	ND		ug/kg	100	4.1	1
p-Ethyltoluene	ND		ug/kg	100	3.2	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	3.4	1
Ethyl ether	ND		ug/kg	130	6.7	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	130	10.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	97		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-04	Date Collected:	02/05/16 09:15
Client ID:	B2: C: 0-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	02/09/16 12:51		
Analyst:	BN		
Percent Solids:	85%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	5.5	0.60	1
1,1-Dichloroethane	ND		ug/kg	0.82	0.05	1
Chloroform	ND		ug/kg	0.82	0.20	1
Carbon tetrachloride	ND		ug/kg	0.55	0.12	1
1,2-Dichloropropane	ND		ug/kg	1.9	0.12	1
Dibromochloromethane	ND		ug/kg	0.55	0.08	1
1,1,2-Trichloroethane	ND		ug/kg	0.82	0.17	1
Tetrachloroethene	ND		ug/kg	0.55	0.08	1
Chlorobenzene	ND		ug/kg	0.55	0.19	1
Trichlorofluoromethane	ND		ug/kg	2.7	0.21	1
1,2-Dichloroethane	ND		ug/kg	0.55	0.06	1
1,1,1-Trichloroethane	ND		ug/kg	0.55	0.06	1
Bromodichloromethane	ND		ug/kg	0.55	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.55	0.07	1
cis-1,3-Dichloropropene	ND		ug/kg	0.55	0.06	1
1,3-Dichloropropene, Total	ND		ug/kg	0.55	0.06	1
1,1-Dichloropropene	ND		ug/kg	2.7	0.08	1
Bromoform	ND		ug/kg	2.2	0.13	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.55	0.06	1
Benzene	ND		ug/kg	0.55	0.07	1
Toluene	ND		ug/kg	0.82	0.11	1
Ethylbenzene	ND		ug/kg	0.55	0.07	1
Chloromethane	ND		ug/kg	2.7	0.16	1
Bromomethane	ND		ug/kg	1.1	0.18	1
Vinyl chloride	ND		ug/kg	1.1	0.06	1
Chloroethane	ND		ug/kg	1.1	0.17	1
1,1-Dichloroethene	ND		ug/kg	0.55	0.14	1
trans-1,2-Dichloroethene	ND		ug/kg	0.82	0.12	1
Trichloroethene	ND		ug/kg	0.55	0.07	1
1,2-Dichlorobenzene	ND		ug/kg	2.7	0.08	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-04 Date Collected: 02/05/16 09:15

Client ID: B2: C: 0-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.7	0.07	1
1,4-Dichlorobenzene	ND		ug/kg	2.7	0.08	1
Methyl tert butyl ether	ND		ug/kg	1.1	0.05	1
p/m-Xylene	ND		ug/kg	1.1	0.11	1
o-Xylene	ND		ug/kg	1.1	0.09	1
Xylenes, Total	ND		ug/kg	1.1	0.09	1
cis-1,2-Dichloroethene	ND		ug/kg	0.55	0.08	1
1,2-Dichloroethene, Total	ND		ug/kg	0.55	0.08	1
Dibromomethane	ND		ug/kg	5.5	0.09	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	5.5	0.10	1
Acetone	ND		ug/kg	5.5	0.57	1
Carbon disulfide	ND		ug/kg	5.5	0.60	1
2-Butanone	ND		ug/kg	5.5	0.15	1
Vinyl acetate	ND		ug/kg	5.5	0.07	1
4-Methyl-2-pentanone	ND		ug/kg	5.5	0.13	1
1,2,3-Trichloropropane	ND		ug/kg	5.5	0.09	1
2-Hexanone	ND		ug/kg	5.5	0.36	1
Bromochloromethane	ND		ug/kg	2.7	0.15	1
2,2-Dichloropropane	ND		ug/kg	2.7	0.12	1
1,2-Dibromoethane	ND		ug/kg	2.2	0.10	1
1,3-Dichloropropane	ND		ug/kg	2.7	0.08	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.55	0.17	1
Bromobenzene	ND		ug/kg	2.7	0.11	1
n-Butylbenzene	ND		ug/kg	0.55	0.06	1
sec-Butylbenzene	ND		ug/kg	0.55	0.07	1
tert-Butylbenzene	ND		ug/kg	2.7	0.07	1
o-Chlorotoluene	ND		ug/kg	2.7	0.09	1
p-Chlorotoluene	ND		ug/kg	2.7	0.07	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.7	0.22	1
Hexachlorobutadiene	ND		ug/kg	2.7	0.12	1
Isopropylbenzene	ND		ug/kg	0.55	0.06	1
p-Isopropyltoluene	ND		ug/kg	0.55	0.07	1
Naphthalene	ND		ug/kg	2.7	0.08	1
Acrylonitrile	ND		ug/kg	5.5	0.28	1
n-Propylbenzene	ND		ug/kg	0.55	0.06	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.7	0.08	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.7	0.10	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.7	0.08	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-04 Date Collected: 02/05/16 09:15

Client ID: B2: C: 0-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	2.7	0.08	1
1,4-Dioxane	ND		ug/kg	55	7.9	1
p-Diethylbenzene	ND		ug/kg	2.2	0.09	1
p-Ethyltoluene	ND		ug/kg	2.2	0.07	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.07	1
Ethyl ether	ND		ug/kg	2.7	0.14	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	2.7	0.21	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	127		70-130
Dibromofluoromethane	103		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-05	Date Collected:	02/05/16 10:30
Client ID:	B3: C: 0-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	02/09/16 13:17		
Analyst:	BN		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	7.4	0.82	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.06	1
Chloroform	ND		ug/kg	1.1	0.27	1
Carbon tetrachloride	ND		ug/kg	0.74	0.16	1
1,2-Dichloropropane	ND		ug/kg	2.6	0.17	1
Dibromochloromethane	ND		ug/kg	0.74	0.11	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.22	1
Tetrachloroethene	ND		ug/kg	0.74	0.10	1
Chlorobenzene	ND		ug/kg	0.74	0.26	1
Trichlorofluoromethane	ND		ug/kg	3.7	0.29	1
1,2-Dichloroethane	ND		ug/kg	0.74	0.08	1
1,1,1-Trichloroethane	ND		ug/kg	0.74	0.08	1
Bromodichloromethane	ND		ug/kg	0.74	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	0.74	0.09	1
cis-1,3-Dichloropropene	ND		ug/kg	0.74	0.09	1
1,3-Dichloropropene, Total	ND		ug/kg	0.74	0.09	1
1,1-Dichloropropene	ND		ug/kg	3.7	0.10	1
Bromoform	ND		ug/kg	3.0	0.17	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.74	0.07	1
Benzene	ND		ug/kg	0.74	0.09	1
Toluene	ND		ug/kg	1.1	0.14	1
Ethylbenzene	ND		ug/kg	0.74	0.09	1
Chloromethane	ND		ug/kg	3.7	0.22	1
Bromomethane	ND		ug/kg	1.5	0.25	1
Vinyl chloride	ND		ug/kg	1.5	0.09	1
Chloroethane	ND		ug/kg	1.5	0.23	1
1,1-Dichloroethene	ND		ug/kg	0.74	0.19	1
trans-1,2-Dichloroethene	ND		ug/kg	1.1	0.16	1
Trichloroethene	ND		ug/kg	0.74	0.09	1
1,2-Dichlorobenzene	ND		ug/kg	3.7	0.11	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-05 Date Collected: 02/05/16 10:30

Client ID: B3: C: 0-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	3.7	0.10	1
1,4-Dichlorobenzene	ND		ug/kg	3.7	0.10	1
Methyl tert butyl ether	ND		ug/kg	1.5	0.06	1
p/m-Xylene	ND		ug/kg	1.5	0.15	1
o-Xylene	ND		ug/kg	1.5	0.13	1
Xylenes, Total	ND		ug/kg	1.5	0.13	1
cis-1,2-Dichloroethene	ND		ug/kg	0.74	0.10	1
1,2-Dichloroethene, Total	ND		ug/kg	0.74	0.10	1
Dibromomethane	ND		ug/kg	7.4	0.12	1
Styrene	ND		ug/kg	1.5	0.30	1
Dichlorodifluoromethane	ND		ug/kg	7.4	0.14	1
Acetone	ND		ug/kg	7.4	0.77	1
Carbon disulfide	ND		ug/kg	7.4	0.81	1
2-Butanone	ND		ug/kg	7.4	0.20	1
Vinyl acetate	ND		ug/kg	7.4	0.10	1
4-Methyl-2-pentanone	ND		ug/kg	7.4	0.18	1
1,2,3-Trichloropropane	ND		ug/kg	7.4	0.12	1
2-Hexanone	ND		ug/kg	7.4	0.49	1
Bromochloromethane	ND		ug/kg	3.7	0.20	1
2,2-Dichloropropane	ND		ug/kg	3.7	0.17	1
1,2-Dibromoethane	ND		ug/kg	3.0	0.13	1
1,3-Dichloropropane	ND		ug/kg	3.7	0.11	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.74	0.24	1
Bromobenzene	ND		ug/kg	3.7	0.15	1
n-Butylbenzene	ND		ug/kg	0.74	0.09	1
sec-Butylbenzene	ND		ug/kg	0.74	0.09	1
tert-Butylbenzene	ND		ug/kg	3.7	0.10	1
o-Chlorotoluene	ND		ug/kg	3.7	0.12	1
p-Chlorotoluene	ND		ug/kg	3.7	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.7	0.29	1
Hexachlorobutadiene	ND		ug/kg	3.7	0.17	1
Isopropylbenzene	ND		ug/kg	0.74	0.08	1
p-Isopropyltoluene	ND		ug/kg	0.74	0.09	1
Naphthalene	ND		ug/kg	3.7	0.10	1
Acrylonitrile	ND		ug/kg	7.4	0.38	1
n-Propylbenzene	ND		ug/kg	0.74	0.08	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.7	0.11	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.7	0.13	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.7	0.11	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-05 Date Collected: 02/05/16 10:30

Client ID: B3: C: 0-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	3.7	0.10	1
1,4-Dioxane	ND		ug/kg	74	11.	1
p-Diethylbenzene	ND		ug/kg	3.0	0.12	1
p-Ethyltoluene	ND		ug/kg	3.0	0.09	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.0	0.10	1
Ethyl ether	ND		ug/kg	3.7	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	3.7	0.29	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	**148**	Q	70-130
4-Bromofluorobenzene	**196**	Q	70-130
Dibromofluoromethane	105		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-05	R	Date Collected:	02/05/16 10:30
Client ID:	B3: C: 0-4'		Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY		Field Prep:	Not Specified
Matrix:	Soil			
Analytical Method:	1,8260C			
Analytical Date:	02/09/16 18:29			
Analyst:	BN			
Percent Solids:	81%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	6.8	0.75	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.06	1
Chloroform	ND		ug/kg	1.0	0.25	1
Carbon tetrachloride	ND		ug/kg	0.68	0.14	1
1,2-Dichloropropane	ND		ug/kg	2.4	0.16	1
Dibromochloromethane	ND		ug/kg	0.68	0.10	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.21	1
Tetrachloroethene	ND		ug/kg	0.68	0.10	1
Chlorobenzene	ND		ug/kg	0.68	0.24	1
Trichlorofluoromethane	ND		ug/kg	3.4	0.26	1
1,2-Dichloroethane	ND		ug/kg	0.68	0.08	1
1,1,1-Trichloroethane	ND		ug/kg	0.68	0.08	1
Bromodichloromethane	ND		ug/kg	0.68	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	0.68	0.08	1
cis-1,3-Dichloropropene	ND		ug/kg	0.68	0.08	1
1,3-Dichloropropene, Total	ND		ug/kg	0.68	0.08	1
1,1-Dichloropropene	ND		ug/kg	3.4	0.10	1
Bromoform	ND		ug/kg	2.7	0.16	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.68	0.07	1
Benzene	ND		ug/kg	0.68	0.08	1
Toluene	ND		ug/kg	1.0	0.13	1
Ethylbenzene	ND		ug/kg	0.68	0.09	1
Chloromethane	ND		ug/kg	3.4	0.20	1
Bromomethane	ND		ug/kg	1.4	0.23	1
Vinyl chloride	ND		ug/kg	1.4	0.08	1
Chloroethane	ND		ug/kg	1.4	0.22	1
1,1-Dichloroethene	ND		ug/kg	0.68	0.18	1
trans-1,2-Dichloroethene	ND		ug/kg	1.0	0.14	1
Trichloroethene	ND		ug/kg	0.68	0.09	1
1,2-Dichlorobenzene	ND		ug/kg	3.4	0.10	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-05 R Date Collected: 02/05/16 10:30

Client ID: B3: C: 0-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	3.4	0.09	1
1,4-Dichlorobenzene	ND		ug/kg	3.4	0.09	1
Methyl tert butyl ether	ND		ug/kg	1.4	0.06	1
p/m-Xylene	ND		ug/kg	1.4	0.14	1
o-Xylene	ND		ug/kg	1.4	0.12	1
Xylenes, Total	ND		ug/kg	1.4	0.12	1
cis-1,2-Dichloroethene	ND		ug/kg	0.68	0.10	1
1,2-Dichloroethene, Total	ND		ug/kg	0.68	0.10	1
Dibromomethane	ND		ug/kg	6.8	0.11	1
Styrene	ND		ug/kg	1.4	0.27	1
Dichlorodifluoromethane	ND		ug/kg	6.8	0.13	1
Acetone	ND		ug/kg	6.8	0.71	1
Carbon disulfide	ND		ug/kg	6.8	0.75	1
2-Butanone	ND		ug/kg	6.8	0.18	1
Vinyl acetate	ND		ug/kg	6.8	0.09	1
4-Methyl-2-pentanone	ND		ug/kg	6.8	0.17	1
1,2,3-Trichloropropane	ND		ug/kg	6.8	0.11	1
2-Hexanone	ND		ug/kg	6.8	0.45	1
Bromochloromethane	ND		ug/kg	3.4	0.19	1
2,2-Dichloropropane	ND		ug/kg	3.4	0.15	1
1,2-Dibromoethane	ND		ug/kg	2.7	0.12	1
1,3-Dichloropropane	ND		ug/kg	3.4	0.10	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.68	0.22	1
Bromobenzene	ND		ug/kg	3.4	0.14	1
n-Butylbenzene	ND		ug/kg	0.68	0.08	1
sec-Butylbenzene	ND		ug/kg	0.68	0.08	1
tert-Butylbenzene	ND		ug/kg	3.4	0.09	1
o-Chlorotoluene	ND		ug/kg	3.4	0.11	1
p-Chlorotoluene	ND		ug/kg	3.4	0.09	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.4	0.27	1
Hexachlorobutadiene	ND		ug/kg	3.4	0.16	1
Isopropylbenzene	ND		ug/kg	0.68	0.07	1
p-Isopropyltoluene	ND		ug/kg	0.68	0.09	1
Naphthalene	ND		ug/kg	3.4	0.09	1
Acrylonitrile	ND		ug/kg	6.8	0.35	1
n-Propylbenzene	ND		ug/kg	0.68	0.07	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.4	0.10	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.4	0.12	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.4	0.10	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-05 R Date Collected: 02/05/16 10:30

Client ID: B3: C: 0-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	3.4	0.10	1
1,4-Dioxane	ND		ug/kg	68	9.8	1
p-Diethylbenzene	ND		ug/kg	2.7	0.11	1
p-Ethyltoluene	ND		ug/kg	2.7	0.09	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.7	0.09	1
Ethyl ether	ND		ug/kg	3.4	0.18	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	3.4	0.27	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	**173**	Q	70-130
4-Bromofluorobenzene	**227**	Q	70-130
Dibromofluoromethane	113		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-06	Date Collected:	02/05/16 11:30
Client ID:	B4: C: 0-5'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	02/09/16 16:19		
Analyst:	BN		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	340	37.	1
1,1-Dichloroethane	ND		ug/kg	50	2.9	1
Chloroform	ND		ug/kg	50	12.	1
Carbon tetrachloride	ND		ug/kg	34	7.1	1
1,2-Dichloropropane	ND		ug/kg	120	7.7	1
Dibromochloromethane	ND		ug/kg	34	5.2	1
1,1,2-Trichloroethane	ND		ug/kg	50	10.	1
Tetrachloroethene	ND		ug/kg	34	4.7	1
Chlorobenzene	ND		ug/kg	34	12.	1
Trichlorofluoromethane	ND		ug/kg	170	13.	1
1,2-Dichloroethane	ND		ug/kg	34	3.8	1
1,1,1-Trichloroethane	ND		ug/kg	34	3.7	1
Bromodichloromethane	ND		ug/kg	34	5.8	1
trans-1,3-Dichloropropene	ND		ug/kg	34	4.1	1
cis-1,3-Dichloropropene	ND		ug/kg	34	4.0	1
1,3-Dichloropropene, Total	ND		ug/kg	34	4.0	1
1,1-Dichloropropene	ND		ug/kg	170	4.8	1
Bromoform	ND		ug/kg	130	7.9	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	34	3.4	1
Benzene	ND		ug/kg	34	4.0	1
Toluene	ND		ug/kg	50	6.6	1
Ethylbenzene	ND		ug/kg	34	4.3	1
Chloromethane	ND		ug/kg	170	9.9	1
Bromomethane	ND		ug/kg	67	11.	1
Vinyl chloride	ND		ug/kg	67	3.9	1
Chloroethane	ND		ug/kg	67	11.	1
1,1-Dichloroethene	ND		ug/kg	34	8.8	1
trans-1,2-Dichloroethene	ND		ug/kg	50	7.1	1
Trichloroethene	ND		ug/kg	34	4.2	1
1,2-Dichlorobenzene	ND		ug/kg	170	5.2	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-06 Date Collected: 02/05/16 11:30

Client ID: B4: C: 0-5' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	170	4.5	1
1,4-Dichlorobenzene	ND		ug/kg	170	4.6	1
Methyl tert butyl ether	ND		ug/kg	67	2.8	1
p/m-Xylene	ND		ug/kg	67	6.6	1
o-Xylene	ND		ug/kg	67	5.8	1
Xylenes, Total	ND		ug/kg	67	5.8	1
cis-1,2-Dichloroethene	ND		ug/kg	34	4.8	1
1,2-Dichloroethene, Total	ND		ug/kg	34	4.8	1
Dibromomethane	ND		ug/kg	340	5.5	1
Styrene	ND		ug/kg	67	14.	1
Dichlorodifluoromethane	ND		ug/kg	340	6.4	1
Acetone	ND		ug/kg	340	35.	1
Carbon disulfide	ND		ug/kg	340	37.	1
2-Butanone	ND		ug/kg	340	9.2	1
Vinyl acetate	ND		ug/kg	340	4.4	1
4-Methyl-2-pentanone	ND		ug/kg	340	8.2	1
1,2,3-Trichloropropane	ND		ug/kg	340	5.5	1
2-Hexanone	ND		ug/kg	340	22.	1
Bromochloromethane	ND		ug/kg	170	9.3	1
2,2-Dichloropropane	ND		ug/kg	170	7.6	1
1,2-Dibromoethane	ND		ug/kg	130	5.9	1
1,3-Dichloropropane	ND		ug/kg	170	4.9	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	34	11.	1
Bromobenzene	ND		ug/kg	170	7.0	1
n-Butylbenzene	ND		ug/kg	34	3.9	1
sec-Butylbenzene	ND		ug/kg	34	4.1	1
tert-Butylbenzene	ND		ug/kg	170	4.6	1
o-Chlorotoluene	ND		ug/kg	170	5.4	1
p-Chlorotoluene	ND		ug/kg	170	4.5	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	170	13.	1
Hexachlorobutadiene	ND		ug/kg	170	7.7	1
Isopropylbenzene	ND		ug/kg	34	3.5	1
p-Isopropyltoluene	ND		ug/kg	34	4.2	1
Naphthalene	ND		ug/kg	170	4.6	1
Acrylonitrile	ND		ug/kg	340	17.	1
n-Propylbenzene	ND		ug/kg	34	3.7	1
1,2,3-Trichlorobenzene	ND		ug/kg	170	5.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	6.1	1
1,3,5-Trimethylbenzene	ND		ug/kg	170	4.8	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-06 Date Collected: 02/05/16 11:30

Client ID: B4: C: 0-5' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	170	4.8	1
1,4-Dioxane	ND		ug/kg	3400	480	1
p-Diethylbenzene	ND		ug/kg	130	5.4	1
p-Ethyltoluene	ND		ug/kg	130	4.2	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	130	4.4	1
Ethyl ether	ND		ug/kg	170	8.7	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	170	13.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	97		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/09/16 09:23
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 04-05 Batch: WG863821-3					
Methylene chloride	ND		ug/kg	10	1.1
1,1-Dichloroethane	ND		ug/kg	1.5	0.09
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.15
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.39
1,2-Dichloroethane	ND		ug/kg	1.0	0.11
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.17
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
1,3-Dichloropropene, Total	ND		ug/kg	1.0	0.12
1,1-Dichloropropene	ND		ug/kg	5.0	0.14
Bromoform	ND		ug/kg	4.0	0.24
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.13
Chloromethane	ND		ug/kg	5.0	0.29
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.12
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.26
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.12

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/09/16 09:23
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 04-05 Batch: WG863821-3					
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.15
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.14
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.14
Methyl tert butyl ether	ND		ug/kg	2.0	0.08
p/m-Xylene	ND		ug/kg	2.0	0.20
o-Xylene	ND		ug/kg	2.0	0.17
Xylenes, Total	ND		ug/kg	2.0	0.17
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.14
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.40
Dichlorodifluoromethane	ND		ug/kg	10	0.19
Acetone	ND		ug/kg	10	1.0
Carbon disulfide	ND		ug/kg	10	1.1
2-Butanone	ND		ug/kg	10	0.27
Vinyl acetate	ND		ug/kg	10	0.13
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.16
2-Hexanone	ND		ug/kg	10	0.67
Bromochloromethane	ND		ug/kg	5.0	0.28
2,2-Dichloropropane	ND		ug/kg	5.0	0.23
1,2-Dibromoethane	ND		ug/kg	4.0	0.17
1,3-Dichloropropane	ND		ug/kg	5.0	0.14
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.11
sec-Butylbenzene	ND		ug/kg	1.0	0.12
tert-Butylbenzene	ND		ug/kg	5.0	0.14
o-Chlorotoluene	ND		ug/kg	5.0	0.16

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/09/16 09:23
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 04-05 Batch: WG863821-3					
p-Chlorotoluene	ND		ug/kg	5.0	0.13
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.40
Hexachlorobutadiene	ND		ug/kg	5.0	0.23
Isopropylbenzene	ND		ug/kg	1.0	0.10
p-Isopropyltoluene	ND		ug/kg	1.0	0.12
Naphthalene	ND		ug/kg	5.0	0.14
Acrylonitrile	ND		ug/kg	10	0.51
n-Propylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.15
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.18
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,4-Dioxane	ND		ug/kg	100	14.
p-Diethylbenzene	ND		ug/kg	4.0	0.16
p-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.39

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	98		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/09/16 09:23
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-03,06 Batch: WG864007-3					
Methylene chloride	ND		ug/kg	500	55.
1,1-Dichloroethane	ND		ug/kg	75	4.3
Chloroform	ND		ug/kg	75	18.
Carbon tetrachloride	ND		ug/kg	50	10.
1,2-Dichloropropane	ND		ug/kg	180	11.
Dibromochloromethane	ND		ug/kg	50	7.7
1,1,2-Trichloroethane	ND		ug/kg	75	15.
Tetrachloroethene	ND		ug/kg	50	7.0
Chlorobenzene	ND		ug/kg	50	17.
Trichlorofluoromethane	ND		ug/kg	250	19.
1,2-Dichloroethane	ND		ug/kg	50	5.7
1,1,1-Trichloroethane	ND		ug/kg	50	5.5
Bromodichloromethane	ND		ug/kg	50	8.7
trans-1,3-Dichloropropene	ND		ug/kg	50	6.0
cis-1,3-Dichloropropene	ND		ug/kg	50	5.9
1,3-Dichloropropene, Total	ND		ug/kg	50	5.9
1,1-Dichloropropene	ND		ug/kg	250	7.1
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	5.0
Benzene	ND		ug/kg	50	5.9
Toluene	ND		ug/kg	75	9.7
Ethylbenzene	ND		ug/kg	50	6.4
Chloromethane	ND		ug/kg	250	15.
Bromomethane	ND		ug/kg	100	17.
Vinyl chloride	ND		ug/kg	100	5.9
Chloroethane	ND		ug/kg	100	16.
1,1-Dichloroethene	ND		ug/kg	50	13.
trans-1,2-Dichloroethene	ND		ug/kg	75	11.
Trichloroethene	ND		ug/kg	50	6.2

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/09/16 09:23
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-03,06 Batch: WG864007-3					
1,2-Dichlorobenzene	ND		ug/kg	250	7.7
1,3-Dichlorobenzene	ND		ug/kg	250	6.8
1,4-Dichlorobenzene	ND		ug/kg	250	6.9
Methyl tert butyl ether	ND		ug/kg	100	4.2
p/m-Xylene	ND		ug/kg	100	9.9
o-Xylene	ND		ug/kg	100	8.6
Xylenes, Total	ND		ug/kg	100	8.6
cis-1,2-Dichloroethene	ND		ug/kg	50	7.1
1,2-Dichloroethene, Total	ND		ug/kg	50	7.1
Dibromomethane	ND		ug/kg	500	8.2
Styrene	ND		ug/kg	100	20.
Dichlorodifluoromethane	ND		ug/kg	500	9.5
Acetone	ND		ug/kg	500	52.
Carbon disulfide	ND		ug/kg	500	55.
2-Butanone	ND		ug/kg	500	14.
Vinyl acetate	ND		ug/kg	500	6.6
4-Methyl-2-pentanone	ND		ug/kg	500	12.
1,2,3-Trichloropropane	ND		ug/kg	500	8.1
2-Hexanone	ND		ug/kg	500	33.
Bromochloromethane	ND		ug/kg	250	14.
2,2-Dichloropropane	ND		ug/kg	250	11.
1,2-Dibromoethane	ND		ug/kg	200	8.7
1,3-Dichloropropane	ND		ug/kg	250	7.3
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	16.
Bromobenzene	ND		ug/kg	250	10.
n-Butylbenzene	ND		ug/kg	50	5.7
sec-Butylbenzene	ND		ug/kg	50	6.1
tert-Butylbenzene	ND		ug/kg	250	6.8
o-Chlorotoluene	ND		ug/kg	250	8.0

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/09/16 09:23
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-03,06 Batch: WG864007-3					
p-Chlorotoluene	ND		ug/kg	250	6.6
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	20.
Hexachlorobutadiene	ND		ug/kg	250	11.
Isopropylbenzene	ND		ug/kg	50	5.2
p-Isopropyltoluene	ND		ug/kg	50	6.2
Naphthalene	ND		ug/kg	250	6.9
Acrylonitrile	ND		ug/kg	500	26.
n-Propylbenzene	ND		ug/kg	50	5.5
1,2,3-Trichlorobenzene	ND		ug/kg	250	7.4
1,2,4-Trichlorobenzene	ND		ug/kg	250	9.1
1,3,5-Trimethylbenzene	ND		ug/kg	250	7.2
1,2,4-Trimethylbenzene	ND		ug/kg	250	7.1
1,4-Dioxane	ND		ug/kg	5000	720
p-Diethylbenzene	ND		ug/kg	200	8.0
p-Ethyltoluene	ND		ug/kg	200	6.2
1,2,4,5-Tetramethylbenzene	ND		ug/kg	200	6.5
Ethyl ether	ND		ug/kg	250	13.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	20.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/10/16 07:23
Analyst: MM
TCLP/SPLP Extraction Date: 02/09/16 12:31

Extraction Date: 02/09/16 12:31

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01-03 Batch: WG864055-3					
Chloroform	ND		ug/l	7.5	1.6
Carbon tetrachloride	ND		ug/l	5.0	1.3
Tetrachloroethene	ND		ug/l	5.0	1.8
Chlorobenzene	ND		ug/l	5.0	1.8
1,2-Dichloroethane	ND		ug/l	5.0	1.3
Benzene	ND		ug/l	5.0	1.6
Vinyl chloride	ND		ug/l	10	0.70
1,1-Dichloroethene	ND		ug/l	5.0	1.4
Trichloroethene	ND		ug/l	5.0	1.8
1,4-Dichlorobenzene	ND		ug/l	25	1.9
2-Butanone	ND		ug/l	50	19.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	79		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	102		70-130
dibromofluoromethane	104		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 04-05 Batch: WG863821-1 WG863821-2								
Methylene chloride	98		98		70-130	0		30
1,1-Dichloroethane	102		101		70-130	1		30
Chloroform	101		101		70-130	0		30
Carbon tetrachloride	102		98		70-130	4		30
1,2-Dichloropropane	101		102		70-130	1		30
Dibromochloromethane	102		103		70-130	1		30
2-Chloroethylvinyl ether	89		95		70-130	7		30
1,1,2-Trichloroethane	105		106		70-130	1		30
Tetrachloroethene	110		105		70-130	5		30
Chlorobenzene	106		106		70-130	0		30
Trichlorofluoromethane	109		100		70-139	9		30
1,2-Dichloroethane	101		103		70-130	2		30
1,1,1-Trichloroethane	102		99		70-130	3		30
Bromodichloromethane	100		102		70-130	2		30
trans-1,3-Dichloropropene	106		106		70-130	0		30
cis-1,3-Dichloropropene	102		104		70-130	2		30
1,1-Dichloropropene	104		100		70-130	4		30
Bromoform	103		105		70-130	2		30
1,1,2,2-Tetrachloroethane	103		106		70-130	3		30
Benzene	102		101		70-130	1		30
Toluene	105		104		70-130	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 04-05 Batch: WG863821-1 WG863821-2								
Ethylbenzene	107		106		70-130	1		30
Chloromethane	100		97		52-130	3		30
Bromomethane	106		100		57-147	6		30
Vinyl chloride	103		97		67-130	6		30
Chloroethane	110		105		50-151	5		30
1,1-Dichloroethene	88		102		65-135	15		30
trans-1,2-Dichloroethene	102		100		70-130	2		30
Trichloroethene	105		102		70-130	3		30
1,2-Dichlorobenzene	108		109		70-130	1		30
1,3-Dichlorobenzene	110		110		70-130	0		30
1,4-Dichlorobenzene	109		111		70-130	2		30
Methyl tert butyl ether	99		101		66-130	2		30
p/m-Xylene	109		107		70-130	2		30
o-Xylene	108		106		70-130	2		30
cis-1,2-Dichloroethene	103		103		70-130	0		30
Dibromomethane	101		104		70-130	3		30
Styrene	108		109		70-130	1		30
Dichlorodifluoromethane	102		95		30-146	7		30
Acetone	119		119		54-140	0		30
Carbon disulfide	82		96		59-130	16		30
2-Butanone	99		106		70-130	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 04-05 Batch: WG863821-1 WG863821-2								
Vinyl acetate	102		102		70-130	0		30
4-Methyl-2-pentanone	102		104		70-130	2		30
1,2,3-Trichloropropane	103		106		68-130	3		30
2-Hexanone	106		106		70-130	0		30
Bromochloromethane	105		108		70-130	3		30
2,2-Dichloropropane	104		100		70-130	4		30
1,2-Dibromoethane	105		107		70-130	2		30
1,3-Dichloropropane	105		106		69-130	1		30
1,1,1,2-Tetrachloroethane	104		104		70-130	0		30
Bromobenzene	106		107		70-130	1		30
n-Butylbenzene	114		110		70-130	4		30
sec-Butylbenzene	109		106		70-130	3		30
tert-Butylbenzene	108		105		70-130	3		30
o-Chlorotoluene	107		106		70-130	1		30
p-Chlorotoluene	110		110		70-130	0		30
1,2-Dibromo-3-chloropropane	98		98		68-130	0		30
Hexachlorobutadiene	111		109		67-130	2		30
Isopropylbenzene	108		106		70-130	2		30
p-Isopropyltoluene	110		108		70-130	2		30
Naphthalene	104		105		70-130	1		30
Acrylonitrile	104		106		70-130	2		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 04-05 Batch: WG863821-1 WG863821-2								
Isopropyl Ether	102		102		66-130	0		30
tert-Butyl Alcohol	98		99		70-130	1		30
n-Propylbenzene	110		107		70-130	3		30
1,2,3-Trichlorobenzene	109		110		70-130	1		30
1,2,4-Trichlorobenzene	113		114		70-130	1		30
1,3,5-Trimethylbenzene	108		107		70-130	1		30
1,2,4-Trimethylbenzene	108		107		70-130	1		30
Methyl Acetate	109		112		51-146	3		30
Ethyl Acetate	99		101		70-130	2		30
Acrolein	103		104		70-130	1		30
Cyclohexane	104		99		59-142	5		30
1,4-Dioxane	100		102		65-136	2		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	87		98		50-139	12		30
p-Diethylbenzene	109		106		70-130	3		30
p-Ethyltoluene	106		106		70-130	0		30
1,2,4,5-Tetramethylbenzene	107		106		70-130	1		30
Tetrahydrofuran	99		104		66-130	5		30
Ethyl ether	111		107		67-130	4		30
trans-1,4-Dichloro-2-butene	109		117		70-130	7		30
Methyl cyclohexane	104		99		70-130	5		30
Ethyl-Tert-Butyl-Ether	100		102		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE

Project Number: Not Specified

Lab Number: L1603223

Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 04-05 Batch: WG863821-1 WG863821-2								
Tertiary-Amyl Methyl Ether	100		102		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		98		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	98		99		70-130
Dibromofluoromethane	100		100		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-03,06 Batch: WG864007-1 WG864007-2								
Methylene chloride	98		98		70-130	0		30
1,1-Dichloroethane	102		101		70-130	1		30
Chloroform	101		101		70-130	0		30
Carbon tetrachloride	102		98		70-130	4		30
1,2-Dichloropropane	101		102		70-130	1		30
Dibromochloromethane	102		103		70-130	1		30
2-Chloroethylvinyl ether	89		95		70-130	7		30
1,1,2-Trichloroethane	105		106		70-130	1		30
Tetrachloroethene	110		105		70-130	5		30
Chlorobenzene	106		106		70-130	0		30
Trichlorofluoromethane	109		100		70-139	9		30
1,2-Dichloroethane	101		103		70-130	2		30
1,1,1-Trichloroethane	102		99		70-130	3		30
Bromodichloromethane	100		102		70-130	2		30
trans-1,3-Dichloropropene	106		106		70-130	0		30
cis-1,3-Dichloropropene	102		104		70-130	2		30
1,1-Dichloropropene	104		100		70-130	4		30
Bromoform	103		105		70-130	2		30
1,1,2,2-Tetrachloroethane	103		106		70-130	3		30
Benzene	102		101		70-130	1		30
Toluene	105		104		70-130	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-03,06 Batch: WG864007-1 WG864007-2								
Ethylbenzene	107		106		70-130	1		30
Chloromethane	100		97		52-130	3		30
Bromomethane	106		100		57-147	6		30
Vinyl chloride	103		97		67-130	6		30
Chloroethane	110		105		50-151	5		30
1,1-Dichloroethene	88		102		65-135	15		30
trans-1,2-Dichloroethene	102		100		70-130	2		30
Trichloroethene	105		102		70-130	3		30
1,2-Dichlorobenzene	108		109		70-130	1		30
1,3-Dichlorobenzene	110		110		70-130	0		30
1,4-Dichlorobenzene	109		111		70-130	2		30
Methyl tert butyl ether	99		101		66-130	2		30
p/m-Xylene	109		107		70-130	2		30
o-Xylene	108		106		70-130	2		30
cis-1,2-Dichloroethene	103		103		70-130	0		30
Dibromomethane	101		104		70-130	3		30
Styrene	108		109		70-130	1		30
Dichlorodifluoromethane	102		95		30-146	7		30
Acetone	119		119		54-140	0		30
Carbon disulfide	82		96		59-130	16		30
2-Butanone	99		106		70-130	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-03,06 Batch: WG864007-1 WG864007-2								
Vinyl acetate	102		102		70-130	0		30
4-Methyl-2-pentanone	102		104		70-130	2		30
1,2,3-Trichloropropane	103		106		68-130	3		30
2-Hexanone	106		106		70-130	0		30
Bromochloromethane	105		108		70-130	3		30
2,2-Dichloropropane	104		100		70-130	4		30
1,2-Dibromoethane	105		107		70-130	2		30
1,3-Dichloropropane	105		106		69-130	1		30
1,1,1,2-Tetrachloroethane	104		104		70-130	0		30
Bromobenzene	106		107		70-130	1		30
n-Butylbenzene	114		110		70-130	4		30
sec-Butylbenzene	109		106		70-130	3		30
tert-Butylbenzene	108		105		70-130	3		30
o-Chlorotoluene	107		106		70-130	1		30
p-Chlorotoluene	110		110		70-130	0		30
1,2-Dibromo-3-chloropropane	98		98		68-130	0		30
Hexachlorobutadiene	111		109		67-130	2		30
Isopropylbenzene	108		106		70-130	2		30
p-Isopropyltoluene	110		108		70-130	2		30
Naphthalene	104		105		70-130	1		30
Acrylonitrile	104		106		70-130	2		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-03,06 Batch: WG864007-1 WG864007-2								
Isopropyl Ether	102		102		66-130	0		30
tert-Butyl Alcohol	98		99		70-130	1		30
n-Propylbenzene	110		107		70-130	3		30
1,2,3-Trichlorobenzene	109		110		70-130	1		30
1,2,4-Trichlorobenzene	113		114		70-130	1		30
1,3,5-Trimethylbenzene	108		107		70-130	1		30
1,2,4-Trimethylbenzene	108		107		70-130	1		30
Methyl Acetate	109		112		51-146	3		30
Ethyl Acetate	99		101		70-130	2		30
Acrolein	103		104		70-130	1		30
Cyclohexane	104		99		59-142	5		30
1,4-Dioxane	100		102		65-136	2		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	87		98		50-139	12		30
p-Diethylbenzene	109		106		70-130	3		30
p-Ethyltoluene	106		106		70-130	0		30
1,2,4,5-Tetramethylbenzene	107		106		70-130	1		30
Tetrahydrofuran	99		104		66-130	5		30
Ethyl ether	111		107		67-130	4		30
trans-1,4-Dichloro-2-butene	109		117		70-130	7		30
Methyl cyclohexane	104		99		70-130	5		30
Ethyl-Tert-Butyl-Ether	100		102		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE

Project Number: Not Specified

Lab Number: L1603223

Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-03,06 Batch: WG864007-1 WG864007-2								
Tertiary-Amyl Methyl Ether	100		102		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		98		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	98		99		70-130
Dibromofluoromethane	100		100		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01-03 Batch: WG864055-1 WG864055-2								
Chloroform	110		112		70-130	2		20
Carbon tetrachloride	119		119		63-132	0		20
Tetrachloroethene	107		112		70-130	5		20
Chlorobenzene	101		99		75-130	2		25
1,2-Dichloroethane	90		88		70-130	2		20
Benzene	113		110		70-130	3		25
Vinyl chloride	103		103		55-140	0		20
1,1-Dichloroethene	118		122		61-145	3		25
Trichloroethene	115		114		70-130	1		25
1,4-Dichlorobenzene	90		91		70-130	1		20
2-Butanone	74		67		63-138	10		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	76		75		70-130
Toluene-d8	92		94		70-130
4-Bromofluorobenzene	93		105		70-130
Dibromofluoromethane	103		100		70-130

SEMIVOLATILES

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-01
Client ID: B1:0-2'
Sample Location: ROTTERDAM, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/10/16 23:48
Analyst: KR
Percent Solids: 80%
TCLP/SPLP Ext. Date: 02/08/16 17:17

Date Collected: 02/05/16 09:35
Date Received: 02/05/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 02/09/16 19:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Semivolatiles by EPA 1311 - Westborough Lab						
Hexachlorobenzene	ND		ug/l	10	2.9	1
2,4-Dinitrotoluene	ND		ug/l	25	4.2	1
Hexachlorobutadiene	ND		ug/l	10	3.3	1
Hexachloroethane	ND		ug/l	10	3.4	1
Nitrobenzene	ND		ug/l	10	3.8	1
2,4,6-Trichlorophenol	ND		ug/l	25	3.4	1
Pentachlorophenol	ND		ug/l	50	17.	1
2-Methylphenol	ND		ug/l	25	5.1	1
3-Methylphenol/4-Methylphenol	ND		ug/l	25	5.6	1
2,4,5-Trichlorophenol	ND		ug/l	25	3.6	1
Pyridine	ND		ug/l	25	6.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	78		21-120
Phenol-d6	78		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	84		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	89		33-120

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-01	Date Collected:	02/05/16 09:35
Client ID:	B1:0-2'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	02/10/16 17:54
Analytical Date:	02/12/16 08:10		
Analyst:	JB		
Percent Solids:	80%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	93	J	ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	120	J	ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	69.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-01 Date Collected: 02/05/16 09:35

Client ID: B1:0-2' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	61	J	ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	110	J	ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	150		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	42	J	ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	230		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	41	J	ug/kg	160	28.	1
Pyrene	92	J	ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	84.	1
Dibenzofuran	58	J	ug/kg	200	19.	1
2-Methylnaphthalene	210	J	ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	67.	1
2-Nitrophenol	ND		ug/kg	440	76.	1
4-Nitrophenol	ND		ug/kg	280	82.	1
2,4-Dinitrophenol	ND		ug/kg	970	94.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	97.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	32.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	20.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-01 Date Collected: 02/05/16 09:35

Client ID: B1:0-2' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		25-120
Phenol-d6	61		10-120
Nitrobenzene-d5	97		23-120
2-Fluorobiphenyl	89		30-120
2,4,6-Tribromophenol	93		10-136
4-Terphenyl-d14	87		18-120

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-02
Client ID: B1:2-4'
Sample Location: ROTTERDAM, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/11/16 00:14
Analyst: KR
Percent Solids: 84%
TCLP/SPLP Ext. Date: 02/08/16 17:17

Date Collected: 02/05/16 09:40
Date Received: 02/05/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 02/09/16 19:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Semivolatiles by EPA 1311 - Westborough Lab						
Hexachlorobenzene	ND		ug/l	10	2.9	1
2,4-Dinitrotoluene	ND		ug/l	25	4.2	1
Hexachlorobutadiene	ND		ug/l	10	3.3	1
Hexachloroethane	ND		ug/l	10	3.4	1
Nitrobenzene	ND		ug/l	10	3.8	1
2,4,6-Trichlorophenol	ND		ug/l	25	3.4	1
Pentachlorophenol	ND		ug/l	50	17.	1
2-Methylphenol	ND		ug/l	25	5.1	1
3-Methylphenol/4-Methylphenol	ND		ug/l	25	5.6	1
2,4,5-Trichlorophenol	ND		ug/l	25	3.6	1
Pyridine	ND		ug/l	25	6.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	78		21-120
Phenol-d6	79		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	84		15-120
2,4,6-Tribromophenol	92		10-120
4-Terphenyl-d14	91		33-120

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-02	Date Collected:	02/05/16 09:40
Client ID:	B1:2-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	02/10/16 17:54
Analytical Date:	02/12/16 08:36		
Analyst:	JB		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	39.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	180	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	24.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	49.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-02 Date Collected: 02/05/16 09:40

Client ID: B1:2-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	150	47.	1
Benzo(b)fluoranthene	ND		ug/kg	120	32.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	150	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	43	J	ug/kg	120	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	150	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	73.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	930	90.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	93.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	620	200	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	19.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-02 Date Collected: 02/05/16 09:40

Client ID: B1:2-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	81		10-120
Nitrobenzene-d5	94		23-120
2-Fluorobiphenyl	92		30-120
2,4,6-Tribromophenol	93		10-136
4-Terphenyl-d14	93		18-120

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-03
Client ID: B1:5'
Sample Location: ROTTERDAM, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/11/16 00:40
Analyst: KR
Percent Solids: 84%
TCLP/SPLP Ext. Date: 02/08/16 17:17

Date Collected: 02/05/16 09:45
Date Received: 02/05/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 02/09/16 19:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Semivolatiles by EPA 1311 - Westborough Lab						
Hexachlorobenzene	ND		ug/l	10	2.9	1
2,4-Dinitrotoluene	ND		ug/l	25	4.2	1
Hexachlorobutadiene	ND		ug/l	10	3.3	1
Hexachloroethane	ND		ug/l	10	3.4	1
Nitrobenzene	ND		ug/l	10	3.8	1
2,4,6-Trichlorophenol	ND		ug/l	25	3.4	1
Pentachlorophenol	ND		ug/l	50	17.	1
2-Methylphenol	ND		ug/l	25	5.1	1
3-Methylphenol/4-Methylphenol	ND		ug/l	25	5.6	1
2,4,5-Trichlorophenol	ND		ug/l	25	3.6	1
Pyridine	ND		ug/l	25	6.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		21-120
Phenol-d6	67		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	71		15-120
2,4,6-Tribromophenol	74		10-120
4-Terphenyl-d14	74		33-120

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-03	Date Collected:	02/05/16 09:45
Client ID:	B1:5'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	02/10/16 17:54
Analytical Date:	02/12/16 09:02		
Analyst:	JB		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	26.	1
2-Chloronaphthalene	ND		ug/kg	200	19.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	25.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	49.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-03 Date Collected: 02/05/16 09:45

Client ID: B1:5' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	450	45.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	81.	1
Dibenzofuran	ND		ug/kg	200	18.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	420	74.	1
4-Nitrophenol	ND		ug/kg	270	80.	1
2,4-Dinitrophenol	ND		ug/kg	940	91.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	94.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-03	Date Collected:	02/05/16 09:45
Client ID:	B1:5'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	89		25-120
Phenol-d6	92		10-120
Nitrobenzene-d5	92		23-120
2-Fluorobiphenyl	94		30-120
2,4,6-Tribromophenol	97		10-136
4-Terphenyl-d14	92		18-120

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-04	Date Collected:	02/05/16 09:15
Client ID:	B2: C: 0-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	02/10/16 17:54
Analytical Date:	02/12/16 09:27		
Analyst:	JB		
Percent Solids:	85%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	28	J	ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	490		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	110	J	ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-04 Date Collected: 02/05/16 09:15

Client ID: B2: C: 0-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	330		ug/kg	110	21.	1
Benzo(a)pyrene	330		ug/kg	150	46.	1
Benzo(b)fluoranthene	490		ug/kg	110	32.	1
Benzo(k)fluoranthene	180		ug/kg	110	30.	1
Chrysene	400		ug/kg	110	20.	1
Acenaphthylene	53	J	ug/kg	150	29.	1
Anthracene	64	J	ug/kg	110	37.	1
Benzo(ghi)perylene	240		ug/kg	150	22.	1
Fluorene	24	J	ug/kg	190	18.	1
Phenanthrene	320		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	75	J	ug/kg	110	22.	1
Indeno(1,2,3-cd)Pyrene	260		ug/kg	150	26.	1
Pyrene	430		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	430	44.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	59	J	ug/kg	190	18.	1
2-Methylnaphthalene	140	J	ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	41	J	ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
P-Chloro-M-Cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	63.	1
2-Nitrophenol	ND		ug/kg	410	72.	1
4-Nitrophenol	ND		ug/kg	270	78.	1
2,4-Dinitrophenol	ND		ug/kg	920	89.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	92.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	28	J	ug/kg	190	18.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-04 Date Collected: 02/05/16 09:15

Client ID: B2: C: 0-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		25-120
Phenol-d6	88		10-120
Nitrobenzene-d5	105		23-120
2-Fluorobiphenyl	101		30-120
2,4,6-Tribromophenol	108		10-136
4-Terphenyl-d14	95		18-120

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-05	Date Collected:	02/05/16 10:30
Client ID:	B3: C: 0-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	02/10/16 17:54
Analytical Date:	02/12/16 09:53		
Analyst:	JB		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	360		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	460		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-05 Date Collected: 02/05/16 10:30

Client ID: B3: C: 0-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	310		ug/kg	120	23.	1
Benzo(a)pyrene	140	J	ug/kg	160	49.	1
Benzo(b)fluoranthene	510		ug/kg	120	34.	1
Benzo(k)fluoranthene	50	J	ug/kg	120	32.	1
Chrysene	1700		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	70	J	ug/kg	120	39.	1
Benzo(ghi)perylene	120	J	ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	940		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	89	J	ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	62	J	ug/kg	160	28.	1
Pyrene	560		ug/kg	120	20.	1
Biphenyl	120	J	ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	84.	1
Dibenzofuran	240		ug/kg	200	19.	1
2-Methylnaphthalene	780		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	210		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	440	76.	1
4-Nitrophenol	ND		ug/kg	280	82.	1
2,4-Dinitrophenol	ND		ug/kg	970	94.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	97.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	32.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Benzoic Acid	340	J	ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	20.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-05 Date Collected: 02/05/16 10:30

Client ID: B3: C: 0-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	88		30-120
2,4,6-Tribromophenol	88		10-136
4-Terphenyl-d14	101		18-120

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-06	Date Collected:	02/05/16 11:30
Client ID:	B4: C: 0-5'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	02/10/16 17:54
Analytical Date:	02/12/16 10:19		
Analyst:	JB		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	65	J	ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	35	J	ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-06 Date Collected: 02/05/16 11:30

Client ID: B4: C: 0-5' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	42	J	ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	58	J	ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	75	J	ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	27	J	ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	89	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	28.	1
Pyrene	64	J	ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	56	J	ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	430	74.	1
4-Nitrophenol	ND		ug/kg	280	81.	1
2,4-Dinitrophenol	ND		ug/kg	950	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	95.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-06 Date Collected: 02/05/16 11:30

Client ID: B4: C: 0-5' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		25-120
Phenol-d6	61		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	70		10-136
4-Terphenyl-d14	62		18-120

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/10/16 18:39
Analyst: KR
TCLP/SPLP Extraction Date: 02/08/16 17:17

Extraction Method: EPA 3510C
Extraction Date: 02/09/16 19:29

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Semivolatiles by EPA 1311 - Westborough Lab for sample(s): 01-03 Batch: WG863877-1					
Hexachlorobenzene	ND		ug/l	10	2.9
2,4-Dinitrotoluene	ND		ug/l	25	4.2
Hexachlorobutadiene	ND		ug/l	10	3.3
Hexachloroethane	ND		ug/l	10	3.4
Nitrobenzene	ND		ug/l	10	3.8
2,4,6-Trichlorophenol	ND		ug/l	25	3.4
Pentachlorophenol	ND		ug/l	50	17.
2-Methylphenol	ND		ug/l	25	5.1
3-Methylphenol/4-Methylphenol	ND		ug/l	25	5.6
2,4,5-Trichlorophenol	ND		ug/l	25	3.6
Pyridine	ND		ug/l	25	6.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		21-120
Phenol-d6	73		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	80		15-120
2,4,6-Tribromophenol	92		10-120
4-Terphenyl-d14	95		33-120

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/11/16 18:58
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 02/10/16 17:54

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG864187-1					
Acenaphthene	ND		ug/kg	130	17.
Benzidine	ND		ug/kg	540	180
n-Nitrosodimethylamine	ND		ug/kg	320	31.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	28.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	32.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Azobenzene	ND		ug/kg	160	16.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	460	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	18.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/11/16 18:58
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 02/10/16 17:54

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG864187-1					
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	55.
Diethyl phthalate	ND		ug/kg	160	15.
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	27.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	31.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	67.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
P-Chloro-M-Cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/11/16 18:58
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 02/10/16 17:54

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG864187-1					
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	61.
4-Nitrophenol	ND		ug/kg	230	66.
2,4-Dinitrophenol	ND		ug/kg	780	76.
4,6-Dinitro-o-cresol	ND		ug/kg	420	78.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	24.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	25.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
Benzaldehyde	ND		ug/kg	210	44.
Caprolactam	ND		ug/kg	160	49.
Atrazine	ND		ug/kg	130	57.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	33.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	71		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	75		30-120
2,4,6-Tribromophenol	78		10-136
4-Terphenyl-d14	83		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Semivolatiles by EPA 1311 - Westborough Lab Associated sample(s): 01-03 Batch: WG863877-2 WG863877-3								
Hexachlorobenzene	68		79		40-140	15		30
2,4-Dinitrotoluene	73		84		24-96	14		30
Hexachlorobutadiene	59		71		28-111	18		30
Hexachloroethane	57		68		21-105	18		30
Nitrobenzene	62		76		40-140	20		30
2,4,6-Trichlorophenol	71		83		30-130	16		30
Pentachlorophenol	67		80		9-103	18		30
2-Methylphenol	65		77		30-130	17		30
3-Methylphenol/4-Methylphenol	68		79		30-130	15		30
2,4,5-Trichlorophenol	71		85		30-130	18		30
Pyridine	21		21		10-66	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	58		69		21-120
Phenol-d6	59		70		10-120
Nitrobenzene-d5	64		75		23-120
2-Fluorobiphenyl	61		74		15-120
2,4,6-Tribromophenol	68		82		10-120
4-Terphenyl-d14	66		78		33-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG864187-2 WG864187-3								
Acenaphthene	74		83		31-137	11		50
Benzidine	13		22		10-66	**51**	Q	50
n-Nitrosodimethylamine	46		52		22-100	12		50
1,2,4-Trichlorobenzene	75		84		38-107	11		50
Hexachlorobenzene	76		87		40-140	13		50
Bis(2-chloroethyl)ether	69		78		40-140	12		50
2-Chloronaphthalene	81		95		40-140	16		50
1,2-Dichlorobenzene	75		83		40-140	10		50
1,3-Dichlorobenzene	76		80		40-140	5		50
1,4-Dichlorobenzene	75		82		28-104	9		50
3,3'-Dichlorobenzidine	52		69		40-140	28		50
2,4-Dinitrotoluene	80		88		28-89	10		50
2,6-Dinitrotoluene	84		100		40-140	17		50
Fluoranthene	79		89		40-140	12		50
4-Chlorophenyl phenyl ether	73		78		40-140	7		50
4-Bromophenyl phenyl ether	78		88		40-140	12		50
Azobenzene	77		86		40-140	11		50
Bis(2-chloroisopropyl)ether	66		75		40-140	13		50
Bis(2-chloroethoxy)methane	71		75		40-117	5		50
Hexachlorobutadiene	75		88		40-140	16		50
Hexachlorocyclopentadiene	73		83		40-140	13		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG864187-2 WG864187-3								
Hexachloroethane	77		83		40-140	8		50
Isophorone	74		86		40-140	15		50
Naphthalene	74		85		40-140	14		50
Nitrobenzene	72		87		40-140	19		50
NitrosoDiPhenylAmine(NDPA)/DPA	78		85		36-157	9		50
n-Nitrosodi-n-propylamine	74		85		32-121	14		50
Bis(2-Ethylhexyl)phthalate	75		84		40-140	11		50
Butyl benzyl phthalate	83		94		40-140	12		50
Di-n-butylphthalate	80		90		40-140	12		50
Di-n-octylphthalate	78		88		40-140	12		50
Diethyl phthalate	78		88		40-140	12		50
Dimethyl phthalate	75		89		40-140	17		50
Benzo(a)anthracene	74		83		40-140	11		50
Benzo(a)pyrene	84		95		40-140	12		50
Benzo(b)fluoranthene	80		89		40-140	11		50
Benzo(k)fluoranthene	70		86		40-140	21		50
Chrysene	72		79		40-140	9		50
Acenaphthylene	81		99		40-140	20		50
Anthracene	78		89		40-140	13		50
Benzo(ghi)perylene	74		79		40-140	7		50
Fluorene	78		85		40-140	9		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG864187-2 WG864187-3								
Phenanthrene	77		86		40-140	11		50
Dibenzo(a,h)anthracene	75		82		40-140	9		50
Indeno(1,2,3-cd)Pyrene	78		83		40-140	6		50
Pyrene	79		86		35-142	8		50
Biphenyl	81		91		54-104	12		50
4-Chloroaniline	75		84		40-140	11		50
2-Nitroaniline	87		97		47-134	11		50
3-Nitroaniline	57		72		26-129	23		50
4-Nitroaniline	74		83		41-125	11		50
Dibenzofuran	77		84		40-140	9		50
2-Methylnaphthalene	77		87		40-140	12		50
1,2,4,5-Tetrachlorobenzene	75		81		40-117	8		50
Acetophenone	83		98		14-144	17		50
2,4,6-Trichlorophenol	80		89		30-130	11		50
P-Chloro-M-Cresol	84		94		26-103	11		50
2-Chlorophenol	76		87		25-102	13		50
2,4-Dichlorophenol	79		94		30-130	17		50
2,4-Dimethylphenol	80		84		30-130	5		50
2-Nitrophenol	80		91		30-130	13		50
4-Nitrophenol	77		86		11-114	11		50
2,4-Dinitrophenol	44		47		4-130	7		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG864187-2 WG864187-3								
4,6-Dinitro-o-cresol	68		76		10-130	11		50
Pentachlorophenol	69		77		17-109	11		50
Phenol	74		87		26-90	16		50
2-Methylphenol	78		90		30-130.	14		50
3-Methylphenol/4-Methylphenol	84		98		30-130	15		50
2,4,5-Trichlorophenol	81		97		30-130	18		50
Benzoic Acid	13		15		10-66	14		50
Benzyl Alcohol	72		89		40-140	21		50
Carbazole	79		85		54-128	7		50
Benzaldehyde	75		80		40-140	6		50
Caprolactam	82		94		15-130	14		50
Atrazine	88		103		40-140	16		50
2,3,4,6-Tetrachlorophenol	78		90		40-140	14		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	77		87		25-120
Phenol-d6	80		93		10-120
Nitrobenzene-d5	77		89		23-120
2-Fluorobiphenyl	78		93		30-120
2,4,6-Tribromophenol	80		91		10-136
4-Terphenyl-d14	76		88		18-120

PCBS

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-01	Date Collected:	02/05/16 09:35
Client ID:	B1:0-2'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	02/10/16 14:35
Analytical Date:	02/11/16 15:09	Cleanup Method:	EPA 3665A
Analyst:	BT	Cleanup Date:	02/11/16
Percent Solids:	80%	Cleanup Method:	EPA 3660B
		Cleanup Date:	02/11/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.8	3.14	1	A
Aroclor 1221	ND		ug/kg	39.8	3.66	1	A
Aroclor 1232	ND		ug/kg	39.8	4.66	1	A
Aroclor 1242	ND		ug/kg	39.8	4.87	1	A
Aroclor 1248	ND		ug/kg	39.8	3.36	1	A
Aroclor 1254	ND		ug/kg	39.8	3.27	1	A
Aroclor 1260	ND		ug/kg	39.8	3.03	1	A
Aroclor 1262	ND		ug/kg	39.8	1.97	1	A
Aroclor 1268	ND		ug/kg	39.8	5.76	1	A
PCBs, Total	ND		ug/kg	39.8	1.97	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	49		30-150	B

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-02	Date Collected:	02/05/16 09:40
Client ID:	B1:2-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	02/10/16 14:35
Analytical Date:	02/11/16 15:21	Cleanup Method:	EPA 3665A
Analyst:	BT	Cleanup Date:	02/11/16
Percent Solids:	84%	Cleanup Method:	EPA 3660B
		Cleanup Date:	02/11/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.4	3.11	1	A
Aroclor 1221	ND		ug/kg	39.4	3.63	1	A
Aroclor 1232	ND		ug/kg	39.4	4.61	1	A
Aroclor 1242	ND		ug/kg	39.4	4.82	1	A
Aroclor 1248	ND		ug/kg	39.4	3.32	1	A
Aroclor 1254	ND		ug/kg	39.4	3.23	1	A
Aroclor 1260	ND		ug/kg	39.4	3.00	1	A
Aroclor 1262	ND		ug/kg	39.4	1.95	1	A
Aroclor 1268	ND		ug/kg	39.4	5.71	1	A
PCBs, Total	ND		ug/kg	39.4	1.95	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	42		30-150	B

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-03	Date Collected:	02/05/16 09:45
Client ID:	B1:5'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	02/10/16 14:35
Analytical Date:	02/11/16 15:34	Cleanup Method:	EPA 3665A
Analyst:	BT	Cleanup Date:	02/11/16
Percent Solids:	84%	Cleanup Method:	EPA 3660B
		Cleanup Date:	02/11/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.0	3.08	1	A
Aroclor 1221	ND		ug/kg	39.0	3.59	1	A
Aroclor 1232	ND		ug/kg	39.0	4.57	1	A
Aroclor 1242	ND		ug/kg	39.0	4.77	1	A
Aroclor 1248	ND		ug/kg	39.0	3.29	1	A
Aroclor 1254	ND		ug/kg	39.0	3.20	1	A
Aroclor 1260	ND		ug/kg	39.0	2.97	1	A
Aroclor 1262	ND		ug/kg	39.0	1.93	1	A
Aroclor 1268	ND		ug/kg	39.0	5.65	1	A
PCBs, Total	ND		ug/kg	39.0	1.93	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		30-150	B
Decachlorobiphenyl	38		30-150	B

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-04	Date Collected:	02/05/16 09:15
Client ID:	B2: C: 0-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	02/10/16 14:35
Analytical Date:	02/11/16 15:46	Cleanup Method:	EPA 3665A
Analyst:	BT	Cleanup Date:	02/11/16
Percent Solids:	85%	Cleanup Method:	EPA 3660B
		Cleanup Date:	02/11/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.7	2.98	1	A
Aroclor 1221	ND		ug/kg	37.7	3.48	1	A
Aroclor 1232	ND		ug/kg	37.7	4.42	1	A
Aroclor 1242	ND		ug/kg	37.7	4.62	1	A
Aroclor 1248	ND		ug/kg	37.7	3.18	1	A
Aroclor 1254	ND		ug/kg	37.7	3.10	1	A
Aroclor 1260	18.6	J	ug/kg	37.7	2.88	1	A
Aroclor 1262	ND		ug/kg	37.7	1.87	1	A
Aroclor 1268	ND		ug/kg	37.7	5.47	1	A
PCBs, Total	18.6	J	ug/kg	37.7	1.87	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	50		30-150	B

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-05	Date Collected:	02/05/16 10:30
Client ID:	B3: C: 0-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	02/10/16 14:35
Analytical Date:	02/11/16 15:59	Cleanup Method:	EPA 3665A
Analyst:	BT	Cleanup Date:	02/11/16
Percent Solids:	81%	Cleanup Method:	EPA 3660B
		Cleanup Date:	02/11/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.4	3.19	1	A
Aroclor 1221	ND		ug/kg	40.4	3.72	1	A
Aroclor 1232	ND		ug/kg	40.4	4.73	1	A
Aroclor 1242	ND		ug/kg	40.4	4.94	1	A
Aroclor 1248	ND		ug/kg	40.4	3.41	1	A
Aroclor 1254	ND		ug/kg	40.4	3.32	1	A
Aroclor 1260	ND		ug/kg	40.4	3.08	1	A
Aroclor 1262	ND		ug/kg	40.4	2.00	1	A
Aroclor 1268	ND		ug/kg	40.4	5.85	1	A
PCBs, Total	ND		ug/kg	40.4	2.00	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	58		30-150	B

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-06	Date Collected:	02/05/16 11:30
Client ID:	B4: C: 0-5'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	02/10/16 14:35
Analytical Date:	02/11/16 16:11	Cleanup Method:	EPA 3665A
Analyst:	BT	Cleanup Date:	02/11/16
Percent Solids:	84%	Cleanup Method:	EPA 3660B
		Cleanup Date:	02/11/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.9	3.00	1	A
Aroclor 1221	ND		ug/kg	37.9	3.50	1	A
Aroclor 1232	ND		ug/kg	37.9	4.45	1	A
Aroclor 1242	ND		ug/kg	37.9	4.64	1	A
Aroclor 1248	ND		ug/kg	37.9	3.20	1	A
Aroclor 1254	ND		ug/kg	37.9	3.12	1	A
Aroclor 1260	ND		ug/kg	37.9	2.89	1	A
Aroclor 1262	ND		ug/kg	37.9	1.88	1	A
Aroclor 1268	ND		ug/kg	37.9	5.50	1	A
PCBs, Total	ND		ug/kg	37.9	1.88	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	61		30-150	B
Decachlorobiphenyl	53		30-150	B

Project Name: ROTTERDAM JUNCTION FIRE HOUSE

Lab Number: L1603223

Project Number: Not Specified

Report Date: 02/25/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 02/11/16 18:03
Analyst: BT

Extraction Method: EPA 3546
Extraction Date: 02/10/16 14:35
Cleanup Method: EPA 3665A
Cleanup Date: 02/11/16
Cleanup Method: EPA 3660B
Cleanup Date: 02/11/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-06 Batch: WG864135-1						
Aroclor 1016	ND		ug/kg	31.6	2.49	A
Aroclor 1221	ND		ug/kg	31.6	2.91	A
Aroclor 1232	ND		ug/kg	31.6	3.70	A
Aroclor 1242	ND		ug/kg	31.6	3.86	A
Aroclor 1248	ND		ug/kg	31.6	2.66	A
Aroclor 1254	ND		ug/kg	31.6	2.59	A
Aroclor 1260	ND		ug/kg	31.6	2.40	A
Aroclor 1262	ND		ug/kg	31.6	1.56	A
Aroclor 1268	ND		ug/kg	31.6	4.58	A
PCBs, Total	ND		ug/kg	31.6	1.56	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	61		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE

Project Number: Not Specified

Lab Number: L1603223

Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-06 Batch: WG864135-2 WG864135-3									
Aroclor 1016	69		79		40-140	14		50	A
Aroclor 1260	56		68		40-140	19		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		92		30-150	A
Decachlorobiphenyl	66		76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		78		30-150	B
Decachlorobiphenyl	60		68		30-150	B

METALS

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-01	Date Collected:	02/05/16 09:35
Client ID:	B1:0-2'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	TCLP/SPLP Ext. Date:	02/08/16 17:17
Percent Solids:	80%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	0.02	1	02/10/16 08:35	02/10/16 20:51	EPA 3015	1,6010C	PS
Barium, TCLP	0.24	J	mg/l	0.50	0.03	1	02/10/16 08:35	02/10/16 20:51	EPA 3015	1,6010C	PS
Cadmium, TCLP	ND		mg/l	0.10	0.01	1	02/10/16 08:35	02/10/16 20:51	EPA 3015	1,6010C	PS
Chromium, TCLP	ND		mg/l	0.20	0.02	1	02/10/16 08:35	02/10/16 20:51	EPA 3015	1,6010C	PS
Lead, TCLP	ND		mg/l	0.50	0.02	1	02/10/16 08:35	02/10/16 20:51	EPA 3015	1,6010C	PS
Mercury, TCLP	ND		mg/l	0.0010	0.0003	1	02/09/16 14:49	02/10/16 02:17	EPA 7470A	1,7470A	EA
Selenium, TCLP	ND		mg/l	0.50	0.03	1	02/10/16 08:35	02/10/16 20:51	EPA 3015	1,6010C	PS
Silver, TCLP	ND		mg/l	0.10	0.02	1	02/10/16 08:35	02/10/16 20:51	EPA 3015	1,6010C	PS

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-01 Date Collected: 02/05/16 09:35

Client ID: B1:0-2' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Matrix: Soil

Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	7.1		mg/kg	0.49	0.10	1	02/10/16 07:00	02/11/16 17:49	EPA 3050B	1,6010C	PS
Barium, Total	55		mg/kg	0.49	0.15	1	02/10/16 07:00	02/11/16 17:49	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.49	0.03	1	02/10/16 07:00	02/11/16 17:49	EPA 3050B	1,6010C	PS
Chromium, Total	11		mg/kg	0.49	0.10	1	02/10/16 07:00	02/11/16 17:49	EPA 3050B	1,6010C	PS
Lead, Total	39		mg/kg	2.4	0.10	1	02/10/16 07:00	02/11/16 17:49	EPA 3050B	1,6010C	PS
Mercury, Total	0.18		mg/kg	0.08	0.02	1	02/06/16 11:10	02/09/16 15:20	EPA 7471B	1,7471B	JH
Selenium, Total	0.56	J	mg/kg	0.98	0.15	1	02/10/16 07:00	02/11/16 17:49	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.49	0.10	1	02/10/16 07:00	02/11/16 17:49	EPA 3050B	1,6010C	PS

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-02	Date Collected:	02/05/16 09:40
Client ID:	B1:2-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	TCLP/SPLP Ext. Date:	02/08/16 17:17
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	0.02	1	02/10/16 08:35	02/10/16 20:56	EPA 3015	1,6010C	PS
Barium, TCLP	0.24	J	mg/l	0.50	0.03	1	02/10/16 08:35	02/10/16 20:56	EPA 3015	1,6010C	PS
Cadmium, TCLP	ND		mg/l	0.10	0.01	1	02/10/16 08:35	02/10/16 20:56	EPA 3015	1,6010C	PS
Chromium, TCLP	ND		mg/l	0.20	0.02	1	02/10/16 08:35	02/10/16 20:56	EPA 3015	1,6010C	PS
Lead, TCLP	ND		mg/l	0.50	0.02	1	02/10/16 08:35	02/10/16 20:56	EPA 3015	1,6010C	PS
Mercury, TCLP	ND		mg/l	0.0010	0.0003	1	02/09/16 14:49	02/10/16 02:19	EPA 7470A	1,7470A	EA
Selenium, TCLP	ND		mg/l	0.50	0.03	1	02/10/16 08:35	02/10/16 20:56	EPA 3015	1,6010C	PS
Silver, TCLP	ND		mg/l	0.10	0.02	1	02/10/16 08:35	02/10/16 20:56	EPA 3015	1,6010C	PS

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-02	Date Collected:	02/05/16 09:40
Client ID:	B1:2-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	6.1		mg/kg	0.47	0.09	1	02/10/16 07:00	02/11/16 17:54	EPA 3050B	1,6010C	PS
Barium, Total	57		mg/kg	0.47	0.14	1	02/10/16 07:00	02/11/16 17:54	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.47	0.03	1	02/10/16 07:00	02/11/16 17:54	EPA 3050B	1,6010C	PS
Chromium, Total	12		mg/kg	0.47	0.09	1	02/10/16 07:00	02/11/16 17:54	EPA 3050B	1,6010C	PS
Lead, Total	18		mg/kg	2.4	0.09	1	02/10/16 07:00	02/11/16 17:54	EPA 3050B	1,6010C	PS
Mercury, Total	0.09		mg/kg	0.08	0.02	1	02/06/16 11:10	02/09/16 15:22	EPA 7471B	1,7471B	JH
Selenium, Total	0.54	J	mg/kg	0.94	0.14	1	02/10/16 07:00	02/11/16 17:54	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.47	0.09	1	02/10/16 07:00	02/11/16 17:54	EPA 3050B	1,6010C	PS

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-03	Date Collected:	02/05/16 09:45
Client ID:	B1:5'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil	TCLP/SPLP Ext. Date:	02/08/16 17:17
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	0.02	1	02/10/16 08:35	02/10/16 22:02	EPA 3015	1,6010C	PS
Barium, TCLP	0.17	J	mg/l	0.50	0.03	1	02/10/16 08:35	02/10/16 22:02	EPA 3015	1,6010C	PS
Cadmium, TCLP	ND		mg/l	0.10	0.01	1	02/10/16 08:35	02/10/16 22:02	EPA 3015	1,6010C	PS
Chromium, TCLP	ND		mg/l	0.20	0.02	1	02/10/16 08:35	02/10/16 22:02	EPA 3015	1,6010C	PS
Lead, TCLP	ND		mg/l	0.50	0.02	1	02/10/16 08:35	02/10/16 22:02	EPA 3015	1,6010C	PS
Mercury, TCLP	ND		mg/l	0.0010	0.0003	1	02/09/16 14:49	02/10/16 02:21	EPA 7470A	1,7470A	EA
Selenium, TCLP	ND		mg/l	0.50	0.03	1	02/10/16 08:35	02/10/16 22:02	EPA 3015	1,6010C	PS
Silver, TCLP	ND		mg/l	0.10	0.02	1	02/10/16 08:35	02/10/16 22:02	EPA 3015	1,6010C	PS

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-03	Date Collected:	02/05/16 09:45
Client ID:	B1:5'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.4		mg/kg	0.47	0.09	1	02/10/16 07:00	02/11/16 17:58	EPA 3050B	1,6010C	PS
Barium, Total	33		mg/kg	0.47	0.14	1	02/10/16 07:00	02/11/16 17:58	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.47	0.03	1	02/10/16 07:00	02/11/16 17:58	EPA 3050B	1,6010C	PS
Chromium, Total	14		mg/kg	0.47	0.09	1	02/10/16 07:00	02/11/16 17:58	EPA 3050B	1,6010C	PS
Lead, Total	ND		mg/kg	2.3	0.09	1	02/10/16 07:00	02/11/16 17:58	EPA 3050B	1,6010C	PS
Mercury, Total	0.04	J	mg/kg	0.08	0.02	1	02/06/16 11:10	02/09/16 15:24	EPA 7471B	1,7471B	JH
Selenium, Total	ND		mg/kg	0.94	0.14	1	02/10/16 07:00	02/11/16 17:58	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.47	0.09	1	02/10/16 07:00	02/11/16 17:58	EPA 3050B	1,6010C	PS

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-04 Date Collected: 02/05/16 09:15

Client ID: B2: C: 0-4' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	14		mg/kg	0.46	0.09	1	02/10/16 07:00	02/11/16 18:02	EPA 3050B	1,6010C	PS
Barium, Total	57		mg/kg	0.46	0.14	1	02/10/16 07:00	02/11/16 18:02	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.46	0.03	1	02/10/16 07:00	02/11/16 18:02	EPA 3050B	1,6010C	PS
Chromium, Total	10		mg/kg	0.46	0.09	1	02/10/16 07:00	02/11/16 18:02	EPA 3050B	1,6010C	PS
Lead, Total	87		mg/kg	2.3	0.09	1	02/10/16 07:00	02/11/16 18:02	EPA 3050B	1,6010C	PS
Mercury, Total	0.20		mg/kg	0.08	0.02	1	02/06/16 11:10	02/09/16 15:26	EPA 7471B	1,7471B	JH
Selenium, Total	1.0		mg/kg	0.93	0.14	1	02/10/16 07:00	02/11/16 18:02	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.46	0.09	1	02/10/16 07:00	02/11/16 18:02	EPA 3050B	1,6010C	PS

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-05	Date Collected:	02/05/16 10:30
Client ID:	B3: C: 0-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	18		mg/kg	0.48	0.10	1	02/10/16 07:00	02/11/16 18:34	EPA 3050B	1,6010C	PS
Barium, Total	73		mg/kg	0.48	0.14	1	02/10/16 07:00	02/11/16 18:34	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.48	0.03	1	02/10/16 07:00	02/11/16 18:34	EPA 3050B	1,6010C	PS
Chromium, Total	7.0		mg/kg	0.48	0.10	1	02/10/16 07:00	02/11/16 18:34	EPA 3050B	1,6010C	PS
Lead, Total	98		mg/kg	2.4	0.10	1	02/10/16 07:00	02/11/16 18:34	EPA 3050B	1,6010C	PS
Mercury, Total	0.19		mg/kg	0.08	0.02	1	02/06/16 11:10	02/09/16 15:28	EPA 7471B	1,7471B	JH
Selenium, Total	2.0		mg/kg	0.97	0.14	1	02/10/16 07:00	02/11/16 18:34	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.48	0.10	1	02/10/16 07:00	02/11/16 18:34	EPA 3050B	1,6010C	PS

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-06 Date Collected: 02/05/16 11:30

Client ID: B4: C: 0-5' Date Received: 02/05/16

Sample Location: ROTTERDAM, NY Field Prep: Not Specified

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.6		mg/kg	0.47	0.09	1	02/10/16 07:00	02/11/16 18:38	EPA 3050B	1,6010C	PS
Barium, Total	56		mg/kg	0.47	0.14	1	02/10/16 07:00	02/11/16 18:38	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.47	0.03	1	02/10/16 07:00	02/11/16 18:38	EPA 3050B	1,6010C	PS
Chromium, Total	11		mg/kg	0.47	0.09	1	02/10/16 07:00	02/11/16 18:38	EPA 3050B	1,6010C	PS
Lead, Total	25		mg/kg	2.4	0.09	1	02/10/16 07:00	02/11/16 18:38	EPA 3050B	1,6010C	PS
Mercury, Total	0.78		mg/kg	0.08	0.02	1	02/06/16 11:10	02/09/16 15:30	EPA 7471B	1,7471B	JH
Selenium, Total	0.42	J	mg/kg	0.94	0.14	1	02/10/16 07:00	02/11/16 18:38	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.47	0.09	1	02/10/16 07:00	02/11/16 18:38	EPA 3050B	1,6010C	PS

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-06 Batch: WG863271-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	02/06/16 11:10	02/09/16 14:41	1,7471B	JH

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-03 Batch: WG863807-1										
Mercury, TCLP	ND		mg/l	0.0010	0.0003	1	02/09/16 14:49	02/10/16 01:54	1,7470A	EA

Prep Information

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 02/08/16 17:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-06 Batch: WG863976-1										
Arsenic, Total	ND		mg/kg	0.40	0.08	1	02/10/16 07:00	02/11/16 14:39	1,6010C	PS
Barium, Total	ND		mg/kg	0.40	0.12	1	02/10/16 07:00	02/11/16 14:39	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.40	0.03	1	02/10/16 07:00	02/11/16 14:39	1,6010C	PS
Chromium, Total	ND		mg/kg	0.40	0.08	1	02/10/16 07:00	02/11/16 14:39	1,6010C	PS
Lead, Total	ND		mg/kg	2.0	0.08	1	02/10/16 07:00	02/11/16 14:39	1,6010C	PS
Selenium, Total	ND		mg/kg	0.80	0.12	1	02/10/16 07:00	02/11/16 14:39	1,6010C	PS
Silver, Total	ND		mg/kg	0.40	0.08	1	02/10/16 07:00	02/11/16 14:39	1,6010C	PS

Prep Information

Digestion Method: EPA 3050B

Project Name: ROTTERDAM JUNCTION FIRE HOUSE **Lab Number:** L1603223

Project Number: Not Specified **Report Date:** 02/25/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-03 Batch: WG863984-1										
Arsenic, TCLP	ND		mg/l	1.0	0.02	1	02/10/16 08:35	02/10/16 17:12	1,6010C	PS
Barium, TCLP	ND		mg/l	0.50	0.03	1	02/10/16 08:35	02/10/16 17:12	1,6010C	PS
Cadmium, TCLP	ND		mg/l	0.10	0.01	1	02/10/16 08:35	02/10/16 17:12	1,6010C	PS
Chromium, TCLP	ND		mg/l	0.20	0.02	1	02/10/16 08:35	02/10/16 17:12	1,6010C	PS
Lead, TCLP	ND		mg/l	0.50	0.02	1	02/10/16 08:35	02/10/16 17:12	1,6010C	PS
Selenium, TCLP	ND		mg/l	0.50	0.03	1	02/10/16 08:35	02/10/16 17:12	1,6010C	PS
Silver, TCLP	ND		mg/l	0.10	0.02	1	02/10/16 08:35	02/10/16 17:12	1,6010C	PS

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 02/08/16 17:17

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 Batch: WG863271-2 SRM Lot Number: D088-540								
Mercury, Total	98		-		72-128	-		
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-03 Batch: WG863807-2								
Mercury, TCLP	111		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01-06 Batch: WG863976-2 SRM Lot Number: D088-540								
Arsenic, Total	105		-		79-121	-		
Barium, Total	99		-		83-117	-		
Cadmium, Total	96		-		83-117	-		
Chromium, Total	92		-		80-120	-		
Lead, Total	84		-		81-117	-		
Selenium, Total	97		-		78-122	-		
Silver, Total	98		-		75-124	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-03 Batch: WG863984-2					
Arsenic, TCLP	100	-	75-125	-	20
Barium, TCLP	95	-	75-125	-	20
Cadmium, TCLP	104	-	75-125	-	20
Chromium, TCLP	95	-	75-125	-	20
Lead, TCLP	100	-	75-125	-	20
Selenium, TCLP	100	-	75-125	-	20
Silver, TCLP	96	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG863271-4 QC Sample: L1603236-01 Client ID: MS Sample												
Mercury, Total	0.88	0.143	1.4	**363**	Q	-	-		80-120	-		20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG863807-4 QC Sample: L1603098-02 Client ID: MS Sample												
Mercury, TCLP	ND	0.025	0.0237	95		-	-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG863976-4 QC Sample: L1603206-23 Client ID: MS Sample												
Arsenic, Total	5.0	12.1	18	108		-	-		75-125	-		20
Barium, Total	24.	202	220	97		-	-		75-125	-		20
Cadmium, Total	ND	5.14	5.0	97		-	-		75-125	-		20
Chromium, Total	6.2	20.2	24	88		-	-		75-125	-		20
Lead, Total	ND	51.4	46	90		-	-		75-125	-		20
Selenium, Total	ND	12.1	11	91		-	-		75-125	-		20
Silver, Total	ND	30.2	29	96		-	-		75-125	-		20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG863984-4 QC Sample: L1602591-01 Client ID: MS Sample												
Arsenic, TCLP	ND	1.2	1.2	100		-	-		75-125	-		20
Barium, TCLP	0.11J	20	19	95		-	-		75-125	-		20
Cadmium, TCLP	ND	0.51	0.51	100		-	-		75-125	-		20
Chromium, TCLP	ND	2	1.9	95		-	-		75-125	-		20
Lead, TCLP	0.02J	5.1	5.0	98		-	-		75-125	-		20
Selenium, TCLP	ND	1.2	1.2	100		-	-		75-125	-		20
Silver, TCLP	ND	0.5	0.47	94		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG863271-3 QC Sample: L1603236-01 Client ID: DUP Sample						
Mercury, Total	0.88	3.8	mg/kg	**125**	Q	20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG863807-3 QC Sample: L1603098-02 Client ID: DUP Sample						
Mercury, TCLP	ND	ND	mg/l	NC		20
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG863976-3 QC Sample: L1603206-23 Client ID: DUP Sample						
Arsenic, Total	5.0	6.3	mg/kg	**23**	Q	20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG863984-3 QC Sample: L1602591-01 Client ID: DUP Sample						
Lead, TCLP	0.02J	0.02J	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-01	Date Collected:	02/05/16 09:35
Client ID:	B1:0-2'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Damp Soil
Particle Size:	Fine
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	02/10/16 12:46	1,1030	AB

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-02	Date Collected:	02/05/16 09:40
Client ID:	B1:2-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Damp Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	02/10/16 12:46	1,1030	AB

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-03	Date Collected:	02/05/16 09:45
Client ID:	B1:5'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Damp Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	02/10/16 12:46	1,1030	AB

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-04	Date Collected:	02/05/16 09:15
Client ID:	B2: C: 0-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Damp Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	02/10/16 12:46	1,1030	AB

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-05	Date Collected:	02/05/16 10:30
Client ID:	B3: C: 0-4'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Damp Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	02/10/16 12:46	1,1030	AB

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

SAMPLE RESULTS

Lab ID:	L1603223-06	Date Collected:	02/05/16 11:30
Client ID:	B4: C: 0-5'	Date Received:	02/05/16
Sample Location:	ROTTERDAM, NY	Field Prep:	Not Specified
Matrix:	Soil		

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Damp Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	02/10/16 12:46	1,1030	AB

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-01
Client ID: B1:0-2'
Sample Location: ROTTERDAM, NY
Matrix: Soil

Date Collected: 02/05/16 09:35
Date Received: 02/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.2		%	0.100	NA	1	-	02/06/16 04:24	30,2540G	RT
pH (H)	7.1		SU	-	NA	1	-	02/06/16 15:30	1,9045D	MR
Halides, Extractable Organic	ND		mg/kg	24.9	4.15	1	02/07/16 12:55	02/08/16 13:51	1,9023	SG
Cyanide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:52	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:44	1,7.3	TL

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-02
Client ID: B1:2-4'
Sample Location: ROTTERDAM, NY
Matrix: Soil

Date Collected: 02/05/16 09:40
Date Received: 02/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.2		%	0.100	NA	1	-	02/06/16 04:24	30,2540G	RT
pH (H)	6.5		SU	-	NA	1	-	02/06/16 15:30	1,9045D	MR
Halides, Extractable Organic	ND		mg/kg	23.8	3.95	1	02/07/16 12:55	02/08/16 14:08	1,9023	SG
Cyanide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:53	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:44	1,7.3	TL

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-03
Client ID: B1:5'
Sample Location: ROTTERDAM, NY
Matrix: Soil

Date Collected: 02/05/16 09:45
Date Received: 02/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.0		%	0.100	NA	1	-	02/06/16 04:24	30,2540G	RT
pH (H)	6.6		SU	-	NA	1	-	02/06/16 15:30	1,9045D	MR
Halides, Extractable Organic	ND		mg/kg	23.8	3.96	1	02/07/16 12:55	02/08/16 14:26	1,9023	SG
Cyanide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:53	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:44	1,7.3	TL

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-04
Client ID: B2: C: 0-4'
Sample Location: ROTTERDAM, NY
Matrix: Soil

Date Collected: 02/05/16 09:15
Date Received: 02/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.2		%	0.100	NA	1	-	02/06/16 04:24	30,2540G	RT
pH (H)	7.3		SU	-	NA	1	-	02/06/16 15:30	1,9045D	MR
Halides, Extractable Organic	ND		mg/kg	23.5	3.91	1	02/07/16 12:55	02/09/16 15:28	1,9023	SG
Cyanide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:53	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:44	1,7.3	TL

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-05
Client ID: B3: C: 0-4'
Sample Location: ROTTERDAM, NY
Matrix: Soil

Date Collected: 02/05/16 10:30
Date Received: 02/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.5		%	0.100	NA	1	-	02/06/16 04:24	30,2540G	RT
pH (H)	6.8		SU	-	NA	1	-	02/06/16 15:30	1,9045D	MR
Halides, Extractable Organic	ND		mg/kg	24.8	4.14	1	02/07/16 12:55	02/09/16 15:47	1,9023	SG
Cyanide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:54	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:45	1,7.3	TL

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

SAMPLE RESULTS

Lab ID: L1603223-06
Client ID: B4: C: 0-5'
Sample Location: ROTTERDAM, NY
Matrix: Soil

Date Collected: 02/05/16 11:30
Date Received: 02/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.5		%	0.100	NA	1	-	02/06/16 04:24	30,2540G	RT
pH (H)	7.8		SU	-	NA	1	-	02/06/16 15:30	1,9045D	MR
Halides, Extractable Organic	ND		mg/kg	24.0	3.99	1	02/07/16 12:55	02/09/16 16:09	1,9023	SG
Cyanide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:54	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:45	1,7.3	TL

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified
Lab Number: L1603223
Report Date: 02/25/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG863397-1										
Halides, Extractable Organic	ND		mg/kg	20.0	3.33	1	02/07/16 12:55	02/08/16 11:16	1,9023	SG
General Chemistry - Westborough Lab for sample(s): 04-06 Batch: WG863686-1										
Halides, Extractable Organic	ND		mg/kg	20.0	3.33	1	02/07/16 12:55	02/09/16 13:16	1,9023	SG
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG863862-1										
Cyanide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:51	1,7.3	TL
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG863863-1										
Sulfide, Reactive	ND		mg/kg	10	10.	1	02/09/16 20:05	02/09/16 22:43	1,7.3	TL

Lab Control Sample Analysis

Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE

Project Number: Not Specified

Lab Number: L1603223

Report Date: 02/25/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG863303-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG863397-3								
Halides, Extractable Organic	81		-		70-130	-		30
General Chemistry - Westborough Lab Associated sample(s): 04-06 Batch: WG863686-3								
Halides, Extractable Organic	86		-		70-130	-		30
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG863862-2								
Cyanide, Reactive	90		-		30-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG863863-2								
Sulfide, Reactive	93		-		60-125	-		40

Matrix Spike Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG863397-4 QC Sample: L1602928-01 Client ID: MS Sample												
Halides, Extractable Organic	ND	112	84.7	76		-	-		70-130	-		30
General Chemistry - Westborough Lab Associated sample(s): 04-06 QC Batch ID: WG863686-4 QC Sample: L1600002-30 Client ID: MS Sample												
Halides, Extractable Organic	ND	100	78.9	79		-	-		70-130	-		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG863274-1 QC Sample: L1603181-01 Client ID: DUP Sample						
Solids, Total	74.7	74.9	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG863303-2 QC Sample: L1603223-01 Client ID: B1:0-2'						
pH (H)	7.1	7.1	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG863397-2 QC Sample: L1602928-01 Client ID: DUP Sample						
Halides, Extractable Organic	ND	ND	mg/kg	NC		30
General Chemistry - Westborough Lab Associated sample(s): 04-06 QC Batch ID: WG863686-2 QC Sample: L1600002-30 Client ID: DUP Sample						
Halides, Extractable Organic	ND	ND	mg/kg	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG863862-3 QC Sample: L1603279-04 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG863863-3 QC Sample: L1603279-04 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 02/06/2016 01:44

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603223-01A	Vial MeOH preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-01B	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-01C	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-01D	Plastic 2oz unpreserved for TS	A	N/A	2.3	Y	Absent	TS(7)
L1603223-01E	Vial Large Septa unpreserved (4o	A	N/A	2.3	Y	Absent	TCLP-EXT-ZHE(14)
L1603223-01F	Glass 500ml/16oz unpreserved	A	N/A	2.3	Y	Absent	IGNIT-1030(14),NYTCL-8270(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),EOX-9023(28),PB-TI(180),PH-9045(1),SE-TI(180),HG-T(28),NYTCL-8082(14),REACTCN(14),CD-TI(180)
L1603223-01G	Glass 250ml/8oz unpreserved	A	N/A	2.3	Y	Absent	SUB-PERCENT-SULFUR(180),SUB-PAINT FILTER()
L1603223-01S	Amber 1000ml unpreserved split	A	N/A	2.3	Y	Absent	TCLP-8270(14)
L1603223-01W	Plastic 120ml HNO3 preserved spl	A	<2	2.3	Y	Absent	CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180)
L1603223-01W9	Tumble Vessel	A	N/A	2.3	Y	Absent	-
L1603223-01X	Vial unpreserved split	A	N/A	2.3	Y	Absent	TCLP-VOA(14)
L1603223-01Y	Vial unpreserved split	A	N/A	2.3	Y	Absent	TCLP-VOA(14)
L1603223-02A	Vial MeOH preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-02B	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-02C	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-02D	Plastic 2oz unpreserved for TS	A	N/A	2.3	Y	Absent	TS(7)
L1603223-02E	Vial Large Septa unpreserved (4o	A	N/A	2.3	Y	Absent	TCLP-EXT-ZHE(14)

*Values in parentheses indicate holding time in days

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603223-02F	Glass 500ml/16oz unpreserved	A	N/A	2.3	Y	Absent	IGNIT-1030(14),NYTCL-8270(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),EOX-9023(28),PB-TI(180),PH-9045(1),SE-TI(180),HG-T(28),NYTCL-8082(14),REACTCN(14),CD-TI(180)
L1603223-02G	Glass 250ml/8oz unpreserved	A	N/A	2.3	Y	Absent	SUB-PERCENT-SULFUR(180),SUB-PAINT FILTER()
L1603223-02S	Amber 1000ml unpreserved split	A	N/A	2.3	Y	Absent	TCLP-8270(14)
L1603223-02W	Plastic 120ml HNO3 preserved spl	A	<2	2.3	Y	Absent	CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180)
L1603223-02W9	Tumble Vessel	A	N/A	2.3	Y	Absent	-
L1603223-02X	Vial unpreserved split	A	N/A	2.3	Y	Absent	TCLP-VOA(14)
L1603223-02Y	Vial unpreserved split	A	N/A	2.3	Y	Absent	TCLP-VOA(14)
L1603223-03A	Vial MeOH preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-03B	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-03C	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-03D	Plastic 2oz unpreserved for TS	A	N/A	2.3	Y	Absent	TS(7)
L1603223-03E	Vial Large Septa unpreserved (4o	A	N/A	2.3	Y	Absent	TCLP-EXT-ZHE(14)
L1603223-03F	Glass 500ml/16oz unpreserved	A	N/A	2.3	Y	Absent	IGNIT-1030(14),NYTCL-8270(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),EOX-9023(28),PB-TI(180),PH-9045(1),SE-TI(180),HG-T(28),NYTCL-8082(14),REACTCN(14),CD-TI(180)
L1603223-03G	Glass 250ml/8oz unpreserved	A	N/A	2.3	Y	Absent	SUB-PERCENT-SULFUR(180),SUB-PAINT FILTER()
L1603223-03S	Amber 1000ml unpreserved split	A	N/A	2.3	Y	Absent	TCLP-8270(14)
L1603223-03W	Plastic 120ml HNO3 preserved spl	A	<2	2.3	Y	Absent	CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180)
L1603223-03W9	Tumble Vessel	A	N/A	2.3	Y	Absent	-
L1603223-03X	Vial unpreserved split	A	N/A	2.3	Y	Absent	TCLP-VOA(14)
L1603223-03Y	Vial unpreserved split	A	N/A	2.3	Y	Absent	TCLP-VOA(14)
L1603223-04A	Vial MeOH preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-04B	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-04C	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)

*Values in parentheses indicate holding time in days

Project Name: ROTTERDAM JUNCTION FIRE HOUSE
Project Number: Not Specified

Lab Number: L1603223
Report Date: 02/25/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1603223-04D	Plastic 2oz unpreserved for TS	A	N/A	2.3	Y	Absent	TS(7)
L1603223-04E	Glass 500ml/16oz unpreserved	A	N/A	2.3	Y	Absent	IGNIT-1030(14),NYTCL-8270(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),EOX-9023(28),PB-TI(180),PH-9045(1),SE-TI(180),HG-T(28),NYTCL-8082(14),REACTCN(14),CD-TI(180)
L1603223-04F	Glass 250ml/8oz unpreserved	A	N/A	2.3	Y	Absent	SUB-PERCENT-SULFUR(180),SUB-PAINT FILTER()
L1603223-05A	Vial MeOH preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-05B	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-05C	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-05D	Plastic 2oz unpreserved for TS	A	N/A	2.3	Y	Absent	TS(7)
L1603223-05E	Glass 500ml/16oz unpreserved	A	N/A	2.3	Y	Absent	IGNIT-1030(14),NYTCL-8270(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),EOX-9023(28),PB-TI(180),PH-9045(1),SE-TI(180),HG-T(28),NYTCL-8082(14),REACTCN(14),CD-TI(180)
L1603223-05F	Vial Large Septa unpreserved (4o	A	N/A	2.3	Y	Absent	SUB-PERCENT-SULFUR(180),SUB-PAINT FILTER()
L1603223-06A	Vial MeOH preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-06B	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-06C	Vial water preserved	A	N/A	2.3	Y	Absent	NYTCL-8260HLW(14)
L1603223-06D	Plastic 2oz unpreserved for TS	A	N/A	2.3	Y	Absent	TS(7)
L1603223-06E	Glass 500ml/16oz unpreserved	A	N/A	2.3	Y	Absent	IGNIT-1030(14),NYTCL-8270(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),EOX-9023(28),PB-TI(180),PH-9045(1),SE-TI(180),HG-T(28),NYTCL-8082(14),REACTCN(14),CD-TI(180)
L1603223-06F	Vial Large Septa unpreserved (4o	A	N/A	2.3	Y	Absent	SUB-PERCENT-SULFUR(180),SUB-PAINT FILTER()

Container Comments

L1603223-05E

*Values in parentheses indicate holding time in days

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: DU Report with 'J' Qualifiers

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	ROTTERDAM JUNCTION FIRE HOUSE	**Lab Number:**	L1603223
Project Number:	Not Specified	**Report Date:**	02/25/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

SUBUPS: Paradigm, Rochester NY

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1603223

Client Information

Client: Alpha Analytical Lab
Address: 8 Walkup Drive
Westborough, Ma 01581
Phone: 508-898-9220
Fax:
Email: subreports@alphalab.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name:
Project Location: NY
Project #:
Project Manager: Melissa Gulli
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)
Due Date: Time:

Report Information Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
Please reference Alpha Job #L1603223 on this report.

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	SULFUR	PAINT FILTER											Sample Specific Comments	TOTAL # BOTTLES
	B1:0-2'	2/5/16	9:35	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
	B1:2-4'	2/5/16	9:40	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
	B1:5'	2/5/16	9:45	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
	B2: C: 0-4'	2/5/16	9:15	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
	B3: C: 0-4'	2/5/16	10:30	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
	B4: C: 0-5'	2/5/16	11:30	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						Container Type	G	G	-	-	-	-	-	-	-	-	-		
						Preservative	A	A	-	-	-	-	-	-	-	-	-		

PLEASE ANSWER QUESTIONS ABOVE!

S YOUR PROJECT
MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	2/6/16 0147	Courier Fridge	2/6/16 0147

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-01(I)
Rev. 30-JUL-07)

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of

Date Rec'd in Lab: 2/5/16

ALPHA Job #: L1603303

Client Information

Client: Foit-Albert
Address: 435 New Karner Rd.
Albany NY 12205
Phone: 518-605-4878
Fax: 518-452-3639
Email: gnugent@foit-albert.com

Project Information

Project Name: Rotterdam Junction Fire House Phase II
Project Location: Rotterdam NY
Project #
(Use Project name as Project #) ☐
Project Manager: Georgie Lussier
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☑ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ **Done**
☐ **Lab to do**
Preservation
☐ **Lab to do**
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC Terracore	SVOC	TCLP VOA TCLP-EXT-ZH	TCLP Metals,TCLP SVOC	RCI,Paint F.PCB,SVOC	TRCRA Metals	Total Sulfur	Total organic halides	Sample Specific Comments	Total Bottles
03203 -01	B1:0-2'	2/5/2016	9:35	S	GNL	X	X	X	X	X	X	X	X		
02	B1:2-4'	2/5/2016	9:40	S	GNL	X	X	X	X	X	X	X	X		
03	B1:5'	2/5/2016	9:45	S	GNL	X	X	X	X	X	X	X	X		
04	B2: C: 0-4'	2/5/2016	9:15	S	GNL	X	X			X	X	X	X		
05	B3: C: 0-4'	2/5/2016	10:30	S	GNL	X	X			X	X	X	X		
06	B4: C : 0-5	2/5/2016	11:30	S	GNL	X	X			X	X	X	X		

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

Alpha Analytical

For Lab Project ID

160582

Referencing

L1603223

Prepared

Wednesday, February 17, 2016

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160582

Client: **Alpha Analytical**

Project Reference: L1603223

Sample Identifier: B1: 0-2'
Lab Sample ID: 160582-01 **Date Sampled:** 2/5/2016
Matrix: Soil **Date Received:** 2/9/2016

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Sulfur	**161**	mg/Kg	A	2/15/2016 09:48

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 2/11/2016
Data File: 021516a

Paint Filter Test

Analyte	Result	Units	Qualifier	Date Analyzed
Paint Filter Test	Pass	N/A		2/12/2016

Method Reference(s): EPA 9095B

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160582

Client: **Alpha Analytical**

Project Reference: L1603223

Sample Identifier: B1: 2-4'
Lab Sample ID: 160582-02 **Date Sampled:** 2/5/2016
Matrix: Soil **Date Received:** 2/9/2016

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Sulfur	**130**	mg/Kg	A	2/15/2016 09:51

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 2/11/2016
Data File: 021516a

Paint Filter Test

Analyte	Result	Units	Qualifier	Date Analyzed
Paint Filter Test	Pass	N/A		2/12/2016

Method Reference(s): EPA 9095B

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160582

Client: **Alpha Analytical**

Project Reference: L1603223

Sample Identifier: B1: 5'
Lab Sample ID: 160582-03 **Date Sampled:** 2/5/2016
Matrix: Soil **Date Received:** 2/9/2016

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Sulfur	**101**	mg/Kg	A	2/15/2016 09:54

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 2/11/2016
Data File: 021516a

Paint Filter Test

Analyte	Result	Units	Qualifier	Date Analyzed
Paint Filter Test	Pass	N/A		2/12/2016

Method Reference(s): EPA 9095B

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160582

Client: **Alpha Analytical**

Project Reference: L1603223

Sample Identifier: B2: C: 0-4'
Lab Sample ID: 160582-04 **Date Sampled:** 2/5/2016
Matrix: Soil **Date Received:** 2/9/2016

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Sulfur	**441**	mg/Kg	A	2/15/2016 10:11

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 2/11/2016
Data File: 021516a

Paint Filter Test

Analyte	Result	Units	Qualifier	Date Analyzed
Paint Filter Test	Pass	N/A		2/12/2016

Method Reference(s): EPA 9095B

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160582

Client: **Alpha Analytical**

Project Reference: L1603223

Sample Identifier: B3: C: 0-4'
Lab Sample ID: 160582-05 **Date Sampled:** 2/5/2016
Matrix: Soil **Date Received:** 2/9/2016

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Sulfur	**1740**	mg/Kg	A	2/15/2016 10:14

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 2/11/2016
Data File: 021516a

Paint Filter Test

Analyte	Result	Units	Qualifier	Date Analyzed
Paint Filter Test	Pass	N/A		2/12/2016

Method Reference(s): EPA 9095B

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160582

Client: **Alpha Analytical**

Project Reference: L1603223

Sample Identifier: B4: C: 0-5'
Lab Sample ID: 160582-06 **Date Sampled:** 2/5/2016
Matrix: Soil **Date Received:** 2/9/2016

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Sulfur	**168**	mg/Kg	A	2/15/2016 10:02

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 2/11/2016
Data File: 021516a

Paint Filter Test

Analyte	Result	Units	Qualifier	Date Analyzed
Paint Filter Test	Pass	N/A		2/12/2016

Method Reference(s): EPA 9095B

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

SUBUPS: Paradigm, Rochester NY

160582

1 of 2

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1603223

Project Information

Project Name:

Project Location: NY

Project #:

Project Manager: Melissa Gulli

ALPHA Quote #:

Client Information

Client: Alpha Analytical Lab

Address: 8 Walkup Drive

Westborough, Ma 01581

Phone: 508-898-9220

Fax:

Email: subreports@alphalab.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Report Information / Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

Please reference Alpha Job #L1603223 on this report.

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	SULFUR	PAINT FILTER											Sample Specific Comments	TOTAL # BOTTLES
01	B1:0-2'	2/5/16	9:35	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
02	B1:2-4'	2/5/16	9:40	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
03	B1:5'	2/5/16	9:45	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
04	B2: C: 0-4'	2/5/16	9:15	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
05	B3: C: 0-4'	2/5/16	10:30	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
06	B4: C: 0-5'	2/5/16	11:30	S		☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
				Soil per visual GP 2/9/16		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	G	G	-	-	-	-	-	-	-	-	-	-		
					Preservative	A	A	-	-	-	-	-	-	-	-	-	-		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 30-JUL-07)

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	2/6/16 0141	Courier fridge	2/6/16 0141
[signature]	2/8/16	[signature]	2/9/16 12:23

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

2°C iced 2/9/16 11:52

Serial_No:20251613:53

PARADIGM

Chain of Custody Supplement

Client: Alpha Analytical **Completed by:** Glenn Pezzulo

Lab Project ID: 160582 **Date:** 2/9/16

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)			X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		X metals
Comments	2°C iced		
Sufficient Sample Quantity	X		
Comments			

LiRo Engineers, Inc.
A LiRo Group Company

REPORT OF
ASBESTOS, LEAD-BASED PAINT & PCB SURVEY SERVICES

FOR

ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE
1215 MAIN STREET
ROTTERDAM, NEW YORK 12150

Prepared For:

The Governor's Office of Storm Recovery
99 Washington Avenue
Suite 1010
Albany, New York 12231

Prepared By:

LiRo Engineers, Inc.
3 Aerial Way
Syosset, New York 11793

November 6, 2015

LiRo Project Number 14-128-1256 / WO 15

LiRo Engineers, Inc.
A LiRo Group Company

Three Aerial Way, Syosset New York 11791 Telephone 516.938.5476 Facsimile 516.937.5421

November 6, 2015

Mr. Thomas King
Legal Counsel and Certifying Environmental Officer
The Governor's Office of Storm Recovery
99 Washington Avenue
Suite 1010
Albany, New York 11040

Re: Report of Asbestos, Lead-Based Paint & PCB Survey Services
Rotterdam Junction Volunteer Firehouse
1215 Main Street
Rotterdam, New York
LiRo Engineers, Inc. Project Number 14-128-1256 / WO 15

Dear Mr. King:

LiRo Engineers, Inc. is pleased to present this report of asbestos, lead-based paint and polychlorinated biphenyls survey services performed at the referenced site. These services were performed in general accordance with our contract for these services and our Proposal for Asbestos and Lead-Based Paint Inspection Services, dated October 5, 2015 and supplemental Proposal for Polychlorinated Biphenyls Survey Services, dated October 13, 2015.

We are pleased to be of service to The Governor's Office of Storm Recovery in connection with this project. If you have any questions or comments, please do not hesitate to contact us.

Sincerely,

LiRo Engineers, Inc.

John F. Eget
Senior Project Manager

Peter J. Gerbasi, P.E.
Vice President – Engagement Partner

TABLE OF CONTENTS

1.0 SCOPE OF WORK 1-1

2.0 ASBESTOS-CONTAINING MATERIALS 2-1

2.1 Field Survey Procedures and Sample Analysis Methods

2.2 Inspection Scope and Material Assessment

2.3 Inspection Results

3.0 LEAD-BASED PAINT 3-1

3.1 Field Survey Procedures and Sample Analysis Methods

3.2 Inspection Scope and Material Assessment

3.3 Inspection Results

4.0 PCB IN CAULKING 4-1

4.1 Field Survey Procedures and Sample Analysis Methods

4.2 Inspection Scope and Material Assessment

4.3 Inspection Results

5.0 CONCLUSIONS AND RECOMMENDATIONS 5-1

APPENDICES:

A: Asbestos Contractor's License, Employee Certifications, and Laboratory Certifications

B: Asbestos Bulk Sampling Chain-Of-Custody / Survey Forms and Laboratory Analytical Data Sheets

C: Lead Paint Sampling Chain-Of-Custody / Survey Forms and Laboratory Analytical Data Sheets

D: PCB Sampling Chain-Of-Custody / Survey Forms and Laboratory Analytical Data Sheets

E: Photographic Documentation

TABLES:

1: Summary of Asbestos Bulk Sample Results

2: Summary of Lead Paint Testing Results

3: Summary of PCB Testing Results

FIGURES:

1: Site Plan

2: Sample Location Plan

1.0 SCOPE OF WORK

LiRo has performed a field survey and material testing for the presence or absence of asbestos-containing material (ACM), lead-based paint (LBP) and polychlorinated biphenyls (PCB) containing caulk at the Rotterdam Junction Volunteer Firehouse located at 1215 Main Street, Rotterdam, New York. The intent of this survey was to locate, identify and quantify items of concern that may be impacted during future demolition to the facility.

The results of the laboratory analysis for ACM and LBP do indicate the presence of these environmental concerns associated with materials used during the construction of the building. As a result, asbestos and lead abatement activities or special work practices are required to be performed prior to or during the renovation or alteration of the structure to protect workers or the environment from these materials if they are to be disturbed.

Analysis of caulk samples for the presence of PCB do not indicate concentrations in the material requiring special disposal requirements. As a result, the caulk may disposed of as Construction and Demolition Debris.

The field procedures, testing methods used during the survey and findings are detailed in the report sections for each of the items of concern.

2.0 ASBESTOS-CONTAINING MATERIALS

2.1 Field Survey Procedures and Sample Analysis Methods

Guidelines used for the inspection were established by the United States Environmental Protection Agency (EPA) in the Guidance for Controlling Asbestos Containing Materials in Buildings, Office of Pesticides and Toxic Substances, Doc 560/5-85-024, and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA). Mr. James Morse of LiRo performed the field survey and sample collection activities for this survey. Mr. Morse holds certification from the New York State Department of Labor (NYSDOL) as an Asbestos Inspector. A copy of the certificate along with LiRo's Company License are included in Appendix A.

Field information was organized in accordance with the AHERA methodology of homogenous area (HA). During the survey, reasonable effort was made to identify all locations and types of ACM materials associated with the potential scope of work. Sampling has included multiple samples of the same materials chosen at random locations. However, due to inconsistencies of a manufacturer's processes and the contractor's installation methods, materials of similar construction may contain various amounts of asbestos. Furthermore, some materials that were not originally specified to contain asbestos may in fact contain this mineral. For example, cementitious pipe insulation and plaster were frequently mixed with asbestos at the construction site for ease of application. Locating all asbestos materials can only be definitively achieved by conducting exploratory demolition and sampling every section of pipe insulation, fitting or valve covering, fireproofing, and other suspect ACM.

Bulk samples of suspect ACM are analyzed using polarized light microscopy (PLM) coupled with dispersion staining, as described in 40 CFR Part 763, the National Emissions Standard for Hazardous Air Pollutants (NESHAPS) and New York State Department of Health Environmental Laboratory Approval Program (ELAP). NESHAPS is the standard industry protocol for the determination of asbestos in building materials. A suspect material is immersed in a solution of known refractive index and subjected to illumination by polarized light. The color displays that result are compared to a standardized atlas whereby the specific variety of asbestos is determined. It should also be recognized that PLM is primarily a qualitative identification method whereby asbestos percentage, if any, is estimated. While EPA and New York State regulations governing ACM consider materials containing greater than 1-percent as asbestos, accurately quantifying asbestos content below 5-percent has been shown to be unreliable.

The New York State Department of Health revised the PLM Stratified Point Counting Method in 2011. The March 25th, 2011 method, "Polarized Light Microscopy Methods for Identifying and Quantifying Asbestos in Bulk Samples" can be found as Item 198.1 in the ELAP Manual. Whereas the procedure of analysis for bulk samples that fall into the category of "Non-friable Organically Bound" (NOB) can be found in the March 25th 2011 method "Polarized-Light Microscope Method for Identifying and Quantifying Asbestos in Non-Friable Organically Bound Bulk Samples", Item 198.6 in the ELAP Certification Manual. This category includes any sample in a flexible to rigid asphalt or vinyl matrix (floor tiles, mastic, roofing shingles, roofing felt, etc.). These samples must be "ashed" in a muffle furnace at 480-degrees Celsius (to remove organic matrix), treated with acid (to remove any mineral carbonate), and filtered through a 0.4-micron polycarbonate filter

before being analyzed by PLM. The sample must be weighted between each of these steps to track the percent loss of organic matrix.

ELAP has determined that analysis of NOB materials and ceiling tiles with cellulose is not reliably performed by PLM. Therefore, if PLM analysis yields results of 1-percent asbestos or less, the result must be confirmed by TEM. For bulk samples that undergo TEM analysis, the March 25th, 2011 method "Transmission Electron Microscope Method for Identifying and Quantitating Asbestos in Non-Friable organically Bound Bulk Samples" must be used and can be found as Item 198.4 in the ELAP Certification Manual. ELAP certified laboratories must include the following statement with their PLM analysis results for each "negative" (1-percent or less asbestos) NOB sample: "Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-ACM, confirmation must be made by quantitative transmission electron microscopy".

All samples are initially analyzed by Polarized Light Microscopy in accordance with Item 198.1 and 198.6 of the ELAP Certification Manual. Samples which yield a negative PLM result (1-percent asbestos or less) and are classified as a "non-friable" or ceiling tiles with cellulose material, are then re-analyzed utilizing TEM methodology in accordance with Item 198.4 of the ELAP Certification Manual. The laboratory performing both these analysis procedures is EMSL Analytical, Inc. located at 528 Mineola Avenue, Carle Place, New York 11514 The laboratory has received accreditation from the following agencies for asbestos:

- National Voluntary Laboratory Accreditation Program (Lab Code 101048-10)
- New York State Environmental Laboratory Approval Program (Lab No. 11469)

2.2 Inspection Scope and Material Assessment

The inspection was characterized by observations of accessible areas. Suspect materials in areas of construction were sampled and quantified.

Materials examined during the inspection included:

- Sheetrock
- Spackle/Joint Compound on Sheetrock
- 24" x 48" Lay-In Ceiling Tiles (Multiple Types)
- Vinyl Cove Base Molding (Multiple Types)
- Mastic for Vinyl Cove Base Molding (Multiple Types)
- 12" x 12" Vinyl Floor Tiles (Multiple Types)
- Mastic for 12" x 12" Vinyl Floor Tiles (Multiple Types)
- Rolled Vinyl Flooring
- Mastic for Rolled Vinyl Flooring
- Floor Leveling Compound
- Carpet Adhesive
- Thinset Mortar

- Mortar for Concrete Block (Multiple Types)
- Wood Putty/Caulk
- Facebrick Mortar (Multiple Types)
- Exterior Caulking (Multiple Types)
- Expansion Joint Material
- Sealants
- Roofing Tar/Flashing (Multiple Types)

2.3 Inspection Results

Analytical results of bulk samples collected during the survey indicate that the presence of ACM at the site. A material is considered to be asbestos-containing when laboratory analysis indicates the presence of greater than 1-percent content in accordance with New York State and EPA Rules and Regulation governing asbestos materials. A summary of the analytical results is listed in Table 1 and the sample chain of custody forms and analytical results are included in Appendix B.

The following materials were determined to be asbestos-containing:

Description of ACM	Sample Location(s)
Beige Speckled 12” x 12” Vinyl Floor Tile	Community Room at South Entry & Men’s Room
Mastic for Beige Speckled 12” x 12” Vinyl Floor Tile	Community Room at South Entry & Men’s Room
Brown Speckled 12” x 12” Vinyl Floor Tile (Type 1)	Community Room at South Entry & Utility Room - South
Mastic for Brown Speckled 12” x 12” Vinyl Floor Tile (Type 1)	Community Room at South Entry & Utility Room - South
Tan Adhesive for Orange Speckled Rolled Vinyl Flooring	Lounge Room at Bar
Off-White Paving Caulk/Expansion Joint Filler	Garage Roof
Stray Tar on Flashing	Garage/Community Room Parapet Wall at Roof (South Wall)
Old Roofing Materials Under Existing EPDM Roof (Assumed to be Present. Material Could Not Be Sampled Without Damaging EPDM Roof.	Existing Roofs

3.0 LEAD-BASED PAINT

3.1 Field Survey Procedures and Sample Analysis Methods

The random sampling protocol described in the U.S. Department of Housing and Urban Development (HUD) guidance document was utilized in developing the sampling procedures for this LBP survey. Mr. James Morse of LiRo performed the field survey and sampling activities for this survey. Mr. Morse holds certification from EPA as a Risk Assessor. A copy of the certificate along with LiRo's Company Certification are included in Appendix A.

Random sampling of a facility or structure that has similar characteristics such as construction materials, painting histories, and date of construction is considered an appropriate methodology. The survey was conducted in accordance with the HUD LBP standard. Paint containing greater than or equal to 0.5 percent of lead by laboratory analysis was considered LBP in accordance with HUD regulations. HUD has provided direction identifying the location of samples using a lettering system. When testing paint, the walls of each room are assigned a letter (A, B. C and D). This is to identify the location of each of the samples in that room. "Chip" samples were collected during the survey.

All samples were analyzed in accordance with the ELAP Certification Manual and EPA Method 7000B. The laboratory performing both these analysis procedures is EMSL Analytical, Inc. located at 528 Mineola Avenue, Carle Place, New York 11514 The laboratory has received accreditation from the following agencies of the analysis of lead in paint:

- AIHA Laboratory Accreditation Program (Lab Code 102344)
- New York State Environmental Laboratory Approval Program (Lab No. 11469)

3.2 Inspection Scope and Material Assessment

The LBP inspection involved a thorough visual examination of all areas that may be impacted by the required renovation/alteration activities in the facility. The following suspect surfaces were tested for LBP:

- Bathroom from Sheetrock Wall
- Communication Room from Door Frame
- Exterior Wall from Concrete Block

3.3 Inspection Results

Analytical results of samples collected during the survey indicate that the presence of LBP at the site. A coating is considered lead-based when laboratory analysis indicates the presence of greater than 0.5-percent content in accordance with HUD Rules and Regulation governing lead-based paint. A summary of the analytical results is listed in Table 2 and the sample chain of custody forms and analytical results are included in Appendix C.

The following coating was determined to be lead-based:

Description of Lead-Based Paint	Sample Location(s)
Paint on Exterior Wall Concrete Block	Exterior Wall at Lounge Entrance Door

4.0 PCB IN CAULKING

4.1 Field Survey Procedures and Sample Analysis Methods

The sampling process includes removing a small portion of the suspect PCB caulk material for analytical testing. Typically, three subsamples of each homogeneous caulk are collected in order to form a composite sample of approximately 10 grams. This quantity of caulk is needed by the laboratory for analytical testing.

All samples were analyzed in accordance with the ELAP Certification Manual and EPA Method 8082. The laboratory performing both these analysis procedures is EMSL Analytical, Inc. located at 200 Route 130 North, Cinnaminson, NJ 08077 The laboratory has received accreditation from the following agencies for the analysis of PCB.

- New York State Environmental Laboratory Approval Program (Lab No. 10872)

4.2 Inspection Scope and Materials Assessment

The PCB inspection involved a thorough visual examination of all areas that may be impacted by the required renovation/alteration activities in the facility. The following suspect caulks were tested for PCB content:

- Interior Brown Window Sill Putty/Caulk
- Exterior Grey Window Sill Caulk
- Exterior Grey Masonry Caulk
- Pitch Pocket White Sealant/Caulk

4.3 Inspection Results

Analytical results of samples collected during the survey do not indicate that the presence of PCB in regulated concentrations in caulk sampled at the site. The disposal of a caulk with PCB concentrations equal to or greater than 50 parts per million (ppm) are regulated by EPA. A summary of the analytical results is listed in Table 3 and the sample chain of custody forms and analytical results are included in Appendix D.

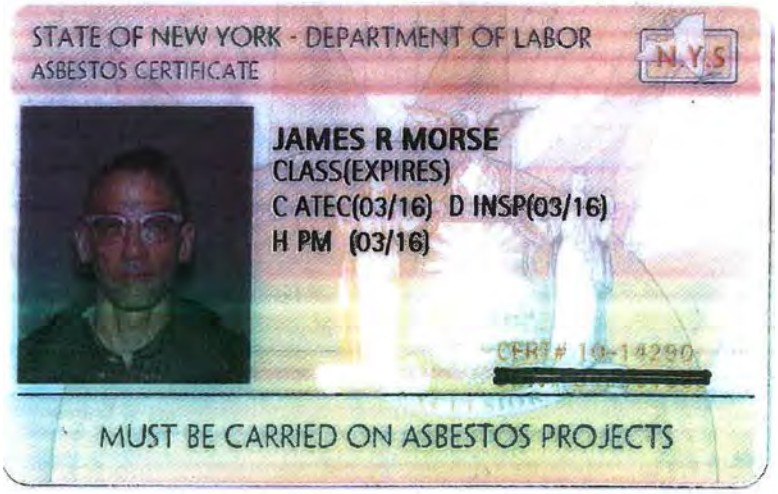
5.0 CONCLUSIONS AND RECOMMENDATIONS

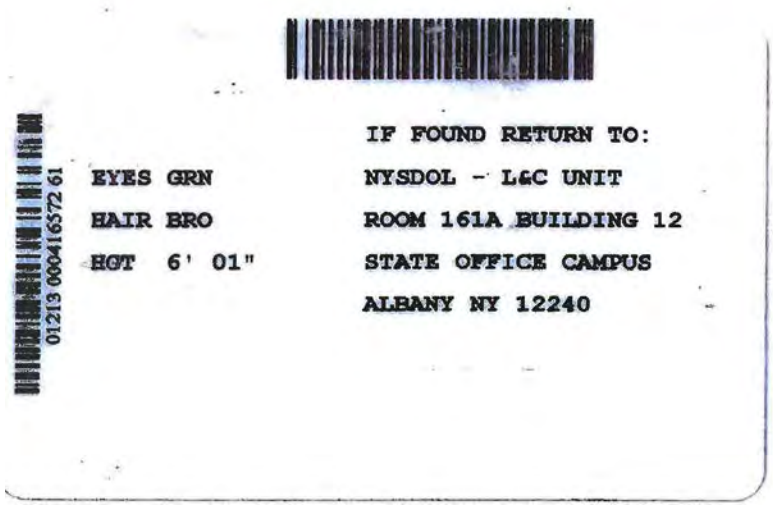
The results of the laboratory analysis for ACM and LBP indicate the presence of these environmental concerns associated with materials used during the construction of the building. As a result, asbestos and lead abatement activities or special work practices are required to be performed prior to or during the renovation or alteration of the structure to protect workers or the environment from these materials if they are to be disturbed.

Analysis of caulk samples for the presence of PCB do not indicate concentrations in the material requiring special disposal requirements. As a result, the caulk may disposed of as Construction and Demolition Debris.

APPENDIX A:

ASBESTOS CONTRACTOR'S LICENSE, EMPLOYEE CERTIFICATIONS, AND LABORATORY CERTIFICATIONS


STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE
N.Y.S
JAMES R MORSE
CLASS(EXPIRES)
C ATEC(03/16) D INSP(03/16)
H PM (03/16)
CERT# 10-14290
[redacted]
MUST BE CARRIED ON ASBESTOS PROJECTS


01213 000416572 61
EYES GRN
HAIR BRO
HGT 6' 01"
IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

United States Environmental Protection Agency

This is to certify that

James R. Morse

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Risk Assessor

In the Jurisdiction of:

New York

This certification is valid from the date of issuance and expires March 10, 2018

NY-R-14442-3
Certification #

March 25, 2015
Issued On

John Gorman, Chief
Pesticides & Toxic Substances Branch

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

LiRo Engineers, Inc.
690 Delaware Avenue
Buffalo, NY 14209

FILE NUMBER: 99-1147
LICENSE NUMBER: 28866
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 11/21/2014
EXPIRATION DATE: 12/31/2015

Duly Authorized Representative – Robert Kreuzer:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

United States Environmental Protection Agency

This is to certify that

LiRo Engineers, Inc.

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

In the Jurisdiction of:

New York

This certification is valid from the date of issuance and expires May 18, 2018

NY-14409-4
Certification #

May 18, 2015
Issued On

Michelle Price, Chief
Lead, Heavy Metals, and Inorganics Branch

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2016
Issued April 01, 2015

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE
Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. MICHELLE MCGOWAN
EMSL ANALYTICAL, INC.
528 MINEOLA AVE.
CARLE PLACE, NY 11514

NY Lab Id No: 11469

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved subcategories and/or analytes are listed below:

Metals I	
Lead, Total	NIOSH 7082
Miscellaneous	
Asbestos	40 CFR 763 APX A No. III
	YAMATE,AGARWAL GIBB
	NIOSH 7402
Fibers	NIOSH 7400 A RULES

Serial No.: 52392

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2016
Issued April 01, 2015

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE
Issued in accordance with and pursuant to section 502 Public Health Law of New York State

NY Lab Id No: 11469

MS. MICHELLE MCGOWAN
EMSL ANALYTICAL, INC.
528 MINEOLA AVE.
CARLE PLACE, NY 11514

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual
	EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual
Asbestos-Vermiculite-Containing Material	Item 198.8 of Manual
Lead in Dust Wipes	EPA 7000B
Lead in Paint	EPA 7000B

Sample Preparation Methods

EPA 3050B

Serial No.: 52390

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2016
Issued April 01, 2015

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE
Issued in accordance with and pursuant to section 502 Public Health Law of New York State

NY Lab Id No: 11469

MS. MICHELLE MCGOWAN
EMSL ANALYTICAL, INC.
528 MINEOLA AVE.
CARLE PLACE, NY 11514

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards (2003) for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:

Characteristic Testing	
TCLP	EPA 1311
Metals I	
Lead, Total	EPA 7000B
Sample Preparation Methods	
	EPA 3050B

Serial No.: 52389

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2016
Issued April 01, 2015
Revised June 16, 2015

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

DR. PETER FRASCA
EMSL ANALYTICAL INC
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077

NY Lab Id No: 10872

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards (2003) for the category
ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved analytes are listed below:

Polychlorinated Biphenyls	
PCB 87	EPA 8082A
PCB-1016	EPA 8082A
	EPA 608
PCB-1221	EPA 8082A
	EPA 608
PCB-1232	EPA 8082A
	EPA 608
PCB-1242	EPA 8082A
	EPA 608
PCB-1248	EPA 8082A
	EPA 608
PCB-1254	EPA 8082A
	EPA 608
PCB-1260	EPA 8082A
	EPA 608
PCB-1262	EPA 8082A
PCB-1268	EPA 8082A

Polynuclear Aromatics	
Acenaphthene	EPA 625
	EPA 8270D
Acenaphthylene	EPA 625
	EPA 8270D
Anthracene	EPA 625
	EPA 8270D
Benzo(a)anthracene	EPA 625

Polynuclear Aromatics	
Benzo(a)anthracene	EPA 8270D
Benzo(a)pyrene	EPA 625
	EPA 8270D
Benzo(b)fluoranthene	EPA 625
	EPA 8270D
Benzo(ghi)perylene	EPA 625
	EPA 8270D
Benzo(k)fluoranthene	EPA 625
	EPA 8270D
Chrysene	EPA 625
	EPA 8270D
Dibenzo(a,h)anthracene	EPA 625
	EPA 8270D
Fluoranthene	EPA 625
	EPA 8270D
Fluorene	EPA 625
	EPA 8270D
Indeno(1,2,3-cd)pyrene	EPA 625
	EPA 8270D
Naphthalene	EPA 625
	EPA 8270D
Phenanthrene	EPA 625
	EPA 8270D
Pyrene	EPA 625
	EPA 8270D

Serial No.: 53041

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

AIHA Laboratory Accreditation Programs, LLC

acknowledges that

EMSL Analytical, Inc.
528 Mineola Ave., Carle Place, NY 11514
Laboratory ID: 102344

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

✓	**INDUSTRIAL HYGIENE**	Accreditation Expires: 06/01/2016
✓	**ENVIRONMENTAL LEAD**	Accreditation Expires: 06/01/2016
☐	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires:
☐	**FOOD**	Accreditation Expires:
☐	**UNIQUE SCOPES**	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Gerald Schultz, CIH
Chairperson, Analytical Accreditation Board

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 14: 03/26/2014

Date Issued: 06/30/2014

AIHA
Laboratory Accreditation Programs, LLC

AIHA Laboratory Accreditation Programs, LLC

SCOPE OF ACCREDITATION

EMSL Analytical, Inc.
528 Mineola Ave., Carle Place, NY 11514

Laboratory ID: **102344**
Issue Date: 06/30/2014

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air analysis is not included as part of the NLLAP.

Environmental Lead Laboratory Accreditation Program (ELLAP)

Initial Accreditation Date: 08/15/1999

Field of Testing (FoT)	Method	Method Description *(for internal methods only)*
Paint	EPA SW-846 3050B	
	EPA SW-846-7000B	
Soil	EPA SW-846 3050B	
	EPA SW-846-7000B	
Settled Dust by Wipe	EPA SW-846 3050B	
	EPA SW-846-7000B	
Airborne Dust	NIOSH 7082	

A complete listing of currently accredited Environmental Lead laboratories is available on the AIHA-LAP, LLC website at: http://www.aihaaccreditedlabs.org

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101048-10

EMSL Analytical, Inc.
Carle Place, NY

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2015-06-17 through 2016-06-30
Effective Dates

For the National Voluntary Laboratory Accreditation Program

APPENDIX B:

ASBESTOS BULK SAMPLING CHAIN-OF-CUSTODY / SURVEY FORMS & LABORATORY ANALYTICAL DATA SHEETS

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way Syosset, New York 11791 Telephone 516.938 5476 Facsimile 516.937 5421

06151639 4

BULK SAMPLING CHAIN-OF-CUSTODY ***1215 Main St. Rotterdam Junction, NY 12306***

Site: Name/Location: Rotterdam Junction Volunteer Firehouse	**LiRo Job #: 14-128-1256 / WO-15**
Inspectors: Morse, James	**Date: 10 / 24 / 2015** 1/5

HA #	Sample #	SAMPLE LOCATION	MATERIAL DESCRIPTION	NOTES
1	1	MEN'S RM CEILING	5/8" SHEET ROCK	1962 SECTION
1	2	UTILITY RM "	↓	800SF
1	3	HVAC LOFT WALL	↓	
2	4	MEN'S RM CEILING	SPACKLE FROM 5/8" SHEETROCK	
1	5	UTIL. RM "	↓	
	6	HVAC LOFT WALL	↓	
3	7	COMMUNITY RM S WALL	5/8" SHEETROCK	1975 SECTION
1	8	LOUNGE HVAC CLOSET	↓	3600SF
	9	COMM. RM S WALL	SPACKLE FROM 5/8" SHEETROCK	
	10	LOUNGE HVAC CLOSET	↓	
5	11	LOUNGE WEST WALL	5/8" SHEETROCK	1982 SECTION
1	12	" " "	↓	2500SF
	13	LOUNGE WEST WALL	SPACKLE FROM 5/8" SHEETROCK	
	14	" " "	↓	
7	15	COMMUNITY RM CEILING @ N	WHITE PAINTED 24"/48" ACOUSTI-	ACT Type 1
1	16	" S	CAL LAY-IN TILE	1000SF
	17	" CTR	↓	
8	18	GARAGE CEILING AT SOUTH	UNPAINTED 24"/48" ACOUSTICAL	ACT Type 2
1	19	KITCHEN " AT E WALL	LAY-IN TILE	3000SF
	20	LOUNGE " AT W "	↓	
9	21	MEN'S RM CEILING AT N	UNPAINTED 24"/24" ACOUSTICAL	ACT Type 3
1	22	" " S	LAY-IN TILE	150SF
	23	" " CTR	↓	

RECEIVED 6 DAYS FROM DATE OF PLACE 10/27 PM 6:05

COMMENTS: ***Stop at first positive per homogenous area. Analyze all samples by layer.***
All inconclusive results require TEM analysis with 24 Hr Turnaround. * E-mail results to egetj@liro.com; soldanor@liro.com***

Relinquished By (Print/Date/Time)	Relinquished By (Print/Date/Time)	Received By (Print/Date/Time)	PLM Analysis (signature/time)
MORSE, JAMES		Terence Miller 10/27/15 5:05PM	10/29/15
Relinquished By (Signature)	**Relinquished By (Signature)**	**Received By (Signature)**	**TEM Analysis (signature/time)**
		Terence Miller	10-30-

OrderID: 06151639 4

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way Syosset, New York 11791 Telephone 516.938 5476 Facsimile 516 937.5421

06151 6394

BULK SAMPLING CHAIN-OF-CUSTODY ***1215 Main St. Rotterdam Junction, NY 12306***

Site: Name/Location: Rotterdam Junction Volunteer Firehouse	**LiRo Job #: 14-128-1256 / WO-15**
Inspectors: Morse, James	**Date: 10 / 24 / 2015** 2/5

HA #	Sample #	SAMPLE LOCATION	MATERIAL DESCRIPTION	NOTES
10	24	COMMUNITY RM AT S WALL,	BROWN 6" VINYL COVEBASE	300 LF
1	25	AT E. ENTRY	↓	
11	26	COMMUNITY RM AT S WALL,	TAN MASTIC FROM 6" VCB	
1	27	" E. ENTRY	↓	
12	28	MENS RM S WALL	BROWN 4" VINYL COVE BASE	200LF
1	29	WOMENS RM "	↓	
13	30	MENS RM S WALL	MASTIC FROM 4" VCB	
1	31	WOMENS RM "	↓	
14	32	COMMUNITY RM @ S ENTRY	BEIGE SPECKLED 12"/12" VFT #1	1200SF
	33	MENS RM @ E ENTRY	↓	
15	34	COMM. RM @ S ENTRY	MASTIC FROM 12/12" BEIGE	
1	35	MENS RM @ E ENTRY	SPECKLED VFT (BLACK)	
	36	COMMUNITY RM @ S ENTRY	BROWN SPECKLED 12/12" VFT	
	37	UTILITY RM @ S.	GREY ↓	
17	38	COMM RM @ S ENTRY	MASTIC FROM BROWN SPECKLED	
1	39	UTILITY RM @ S	(BLACK) VFT	
18	40	COMMAND RM FLOOR	BEIGE SPECKLED 12"/12" VFT #2	200SF
1	41	WOMENS RM "	↓	
19	42	COMMAND RM	MASTIC FROM 12"/12" BEIGE	
1	43	WOMENS RM FLOOR	SPECKLED VFT #2	
20	44	LOUNGE RM AT BAR @ E	ORANGE SPECKLED ROLLED	150SF
1	45	" W	VINYL FLOORING	
21	46	LOUNGE RM AT BAR @ E	TAN ADHESIVE FROM ROLLED VINYL	

RECEIVED
NOV 2 2015
15 OCT 2015 PM 3:15
WILL BE ANALYTICALLY PLACED

COMMENTS: ***Stop at first positive per homogenous area. Analyze all samples by layer.***
All inconclusive results require TEM analysis with 24 Hr Turnaround. * E-mail results to egetj @liro.com; soldanor@liro.com***

Relinquished By (Print/Date/Time)	Relinquished By (Print/Date/Time)	Received By (Print/Date/Time)	PLM Analysis (signature/time)
MORSE, JAMES		Terrence Miller 10/27/15 6:05	10/29/15
Relinquished By (Signature)	**Relinquished By (Signature)**	**Received By (Signature)**	**TEM Analysis (signature/time)**
		Terrence Miller	6:30

Construction Managers Engineers Architects

OrderID: 061516394

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way Syosset, New York 11791 Telephone 516.938.5476 Facsimile 516.937.5421

06151639 4

BULK SAMPLING CHAIN-OF-CUSTODY *1215 Main St. Rotterdam Junction, NY 12306*

Site: Name/Location: Rotterdam Junction Volunteer Firehouse	**LiRo Job #: 14-128-1256 / WO-15**
Inspectors: Morse, James	**Date: 10 / 24 / 2015** 3/5

HA #	Sample #	SAMPLE LOCATION	MATERIAL DESCRIPTION	NOTES
21	47	LOUNGE RM @ BAR @ W	(SEE PREV.)	
22	48	LOUNGE RM FLOOR @ E	OFF-WHITE CEMENTITIOUS	200SF
	49	UNDER VINYL CTR	FLOOR LEVELING COMPOUND	
	50	FLOORING W	↓	
23	51	LOUNGE RM FLOOR @ E	TAN CARPETING ADHESIVE	
	52	UNDER CARPETING W	↓	
24	53	LOUNGE @ W ENTRY DOOR FLOOR	GREY THINSET/MORTAR	
	54	@ HVAC CLOSET "	WITH COATING	
	55	" "	↓	
25	56	GARAGE @ N WALL (WEST)	GREY INTERIOR CMU MORTAR	1962' SECTION
	57	" (EAST)		3800SF
	58	" E WALL (NORTH)		
	59	" (CTR)		
	60	" (SOUTH)		
	61	" S WALL (WEST)		
	62	" (EAST)	↓	
26	63	COMMUNITY RM WALL @ EAST		1975' SECTION
	64	" "		1500SF
	65	" WALL @ SOUTH E		
	66	" CTR		
	67	" WEST	↓	
27	68	LOUNGE RM WALL @ SOUTH E		1982' SECTION
	69	" W		1200SF

RECEIVED ENVIRONMENTAL ANALYTICAL SERVICE PLACE OCT 27 PM 6:05

COMMENTS: ***Stop at first positive per homogenous area. Analyze all samples by layer.***
All inconclusive results require TEM analysis with 24 Hr Turnaround. * E-mail results to egetj@liro.com; soldanor@liro.com***

Relinquished By (Print/Date/Time)	Relinquished By (Print/Date/Time)	Received By (Print/Date/Time)	PLM Analysis (signature/time)
MORSE, JAMES		Terrence Miller 10/27/15 6:05	10/29/15
Relinquished By (Signature)	**Relinquished By (Signature)**	**Received By (Signature)**	**TEM Analysis (signature/time)**
		Terrence Miller	10:30

OrderID: 061516394

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way Syosset, New York 11791 Telephone 516 938.5476 Facsimile 516.937 5421

06151 6394

BULK SAMPLING CHAIN-OF-CUSTODY ***1215 Main St. Rotterdam Junction, NY 12306***

Site: Name/Location: Rotterdam Junction Volunteer Firehouse	**LiRo Job #: 14-128-1256 / WO-15**
Inspectors: Morse, James	**Date: 10 / 24 / 2015** 4/5

HA #	Sample #	SAMPLE LOCATION	MATERIAL DESCRIPTION	NOTES
27	70	LOUNGE RM WALL @ SOUTH (CTR)	GREY INTERIOR CMU MORTAR	
	71	" WEST (NORTH)		
1	72	" (SOUTH)		
28	73	LOUNGE RM WINDOW @ SE	BROWN WOOD PUTTY/CAULK	4 LF
1	74	SILL SW		
29	75	GARAGE EAST FACADE @ N	GREY EXTERIOR FACEBRICK	1962' SECTION
1	76	" CTR	MORTAR	600 SF
	77	" S		
	78	COMMUNITY RM FACADE @ E		1975' SECTION
	79	" E		1100 SF
	80	" E		
	81	" S		
	82	" S		
31	83	LOUNGE RM FASCADE @ SE		1982' SECTION
1	84	" CTR		300 SF
	85	" SW		
32	86	LOUNGE RM FACADE @ WEST	WHITE PAINTED FACEBRICK MORTAR	"
	87	" "		1200 SF
	88	" "		
	89	" @ NORTH		
	90	" "		
33	91	" FACADE @ SOUTH	BROWN ELASTIC EXTERIOR	20 LF
1	92	" @ WEST "	WINDOWSILL CAULKING	

COMMENTS: ***Stop at first positive per homogenous area. Analyze all samples by layer.***
All inconclusive results require TEM analysis with 24 Hr Turnaround. * E-mail results to egetj @liro.com; soldanor@liro.com***

Relinquished By (Print/Date/Time)	Relinquished By (Print/Date/Time)	Received By (Print/Date/Time)	PLM Analysis (signature/time)
MORSE, JAMES		Terrence Miller 10/27/15 6:05PM	10/29/15
Relinquished By (Signature)	**Relinquished By (Signature)**	**Received By (Signature)**	**TEM Analysis (signature/time)**
		Terrence Miller	1030

RECEIVED OCT 27 2015 ANALYTICAL CHRISTOPHER PAGE

OrderID: 061516394

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way Syosset, New York 11791 Telephone 516 938.5476 Facsimile 516.937.5421

06151 6394

BULK SAMPLING CHAIN-OF-CUSTODY *1215 Main St. Rotterdam Junction, NY 12306*

Site: Name/Location: Rotterdam Junction Volunteer Firehouse	**LiRo Job #: 14-128-1256 / WO-15**
Inspectors: Morse, James	**Date: 10 / 24 / 2015** 5/5

HA #	Sample #	SAMPLE LOCATION	MATERIAL DESCRIPTION	NOTES
33	93	COMMUNITY RM @ SOUTH	GREY HARDENED EXTERIOR	200 LF
1	94	@ EAST WINDOWSILL	WINDOW CAULK	
34	95	SOUTH FACADE WEST OF ENTRY	GREY STRIATED EXPANSION	15 LF
1	96	"	JOINT	
35	97	GARAGE FLOOR @ NORTH	OFF-WHITE PAVING CAULK /	200 LF
1	98	SOUTH	EXPANSION JT FILLER	
36	99	ROOF TOWER PITCH POCKET	WHITE ELASTIC COVERING /	4 SF
1	100	"	SEALANT	
37	101	GARAGE ROOF VENT STACK	STRAY TAR / FLASHING	< 1 SF
1	102	@ S. WEST	"	
38	103	GARAGE / COMMUNITY RM	GREY EXTERIOR MASONRY	50 LF
1	104	PARTY WALL AT ROOF	CAULK	
		(SOUTH WALL)		

RECEIVED
OCT 27 PM 6:05

COMMENTS: ***Stop at first positive per homogenous area. Analyze all samples by layer.***
All inconclusive results require TEM analysis with 24 Hr Turnaround. * E-mail results to egetj @liro.com; soldanor@liro.com***

Relinquished By (Print/Date/Time)	Relinquished By (Print/Date/Time)	Received By (Print/Date/Time)	PLM Analysis (signature/time)
MORSE, JAMES		Terrence Miller 10/27/15 6:05PM	10/29
Relinquished By (Signature)	**Relinquished By (Signature)**	**Received By (Signature)**	**TEM Analysis (signature/time)**
		Terrence Miller	10-30

OrderID: 06151 6394

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Attn: **John Eget**
Liro Engineers, Inc.
3 Aerial Way
Syosset, NY 11791

Phone:	(516) 938-5476
Fax:	(516) 937-5421
Received:	10/27/15 6:05 PM
Analysis Date:	10/29/2015
Collected:	10/24/2015

Project: **Rotterdam Junction Volunteer Firehouse, 1215 Main St., Rotterdam Junction, NY 12306, Job #:14-128-1256/WO-15**

Test Report:Asbestos Analysis of Bulk Material

Test	Analyzed Date	Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 1-1 *061516394-0001*		**Description** Men's Rm Ceiling - 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White	2.00% Cellulose	98.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 1-2 *061516394-0002*		**Description** Utility Rm Ceiling - 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White	4.00% Cellulose	96.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 1-3 *061516394-0003*		**Description** HVAC Loft Wall - 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White	5.00% Cellulose	95.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 2-4 *061516394-0004*		**Description** Men's Rm Ceiling - Spackle From 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 2-5 *061516394-0005*		**Description** Utility Rm Ceiling - Spackle From 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 2-6 *061516394-0006*		**Description** HVAC Loft Wall - Spackle From 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 3-7 *061516394-0007*		**Description** Community Rm S Wall - 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White	9.00% Cellulose	91.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 3-8 *061516394-0008*		**Description** Lounge HVAC Closet - 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White	10.00% Cellulose	90.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 4-9 *061516394-0009*		**Description** Community Rm S Wall - Spackle From 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 4-10 *061516394-0010*		**Description** Lounge HVAC Closet - Spackle From 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 5-11 *061516394-0011*		**Description** Lounge West Wall - 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White	5.00% Cellulose	95.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 5-12 *061516394-0012*		**Description** Lounge West Wall - 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White	5.00% Cellulose	95.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 6-13 *061516394-0013*		**Description** Lounge West Wall - Spackle From 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 6-14 *061516394-0014*		**Description** Lounge West Wall - Spackle From 5/8" Sheetrock **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 7-15 *061516394-0015*		**Description** Community Rm Ceiling @ N - White Painted 24"/48" Acoustical Lay-In Tile **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Beige			**None Detected**
Sample ID 7-16 *061516394-0016*		**Description** Community Rm Ceiling @ S - White Painted 24"/48" Acoustical Lay-In Tile **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Beige			**None Detected**
Sample ID 7-17 *061516394-0017*		**Description** Community Rm Ceiling @ Ctr - White Painted 24"/48" Acoustical Lay-In Tile **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Beige			**None Detected**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 8-18 *061516394-0018*		**Description**	Garage Ceiling At South - Unpainted 24"/48" Acoustical Lay-In Tile		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Beige			**None Detected**
Sample ID 8-19 *061516394-0019*		**Description**	Kitchen Ceiling At East Wall - Unpainted 24"/48" Acoustical Lay-In Tile		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Beige			**None Detected**
Sample ID 8-20 *061516394-0020*		**Description**	Lounge Ceiling At West Wall - Unpainted 24"/48" Acoustical Lay-In Tile		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Beige			**None Detected**
Sample ID 9-21 *061516394-0021*		**Description**	Mens Rm Ceiling At N - Unpainted 24"/24" Acoustical Lay-In Tile		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige	28.3% Min. Wool		**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Beige			**None Detected**
Sample ID 9-22 *061516394-0022*		**Description**	Mens Rm Ceiling At S - Unpainted 24"/24" Acoustical Lay-In Tile		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige	34.1% Min. Wool		**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Beige			**None Detected**
Sample ID 9-23 *061516394-0023*		**Description**	Mens Rm Ceiling At CTR - Unpainted 24"/24" Acoustical Lay-In Tile		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige	52.6% Min. Wool		**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Beige			**None Detected**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 10-24 *061516394-0024*		**Description**	Community Rm At S Wall - Brown 6" Vinyl Cove Base		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Brown			**None Detected**
Sample ID 10-25 *061516394-0025*		**Description**	Community Rm At E. Entry - Brown 6" Vinyl Cove Base		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Brown			**None Detected**
Sample ID 11-26 *061516394-0026*		**Description**	Community Rm At S. Wall - Tan Mastic From 6" VCB		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Tan			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Tan			**None Detected**
Sample ID 11-27 *061516394-0027*		**Description**	Community Rm At E. Entry - Tan Mastic From 6" VCB		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Tan			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Tan			**None Detected**
Sample ID 12-28 *061516394-0028*		**Description**	Mens Rm S Wall - Brown 4" Vinyl Cove Base		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Brown			**None Detected**
Sample ID 12-29 *061516394-0029*		**Description**	Womens Rm S Wall - Brown 4" Vinyl Cove Base		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Brown			**None Detected**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 13-30 *061516394-0030*		**Description**	Mens Rm S Wall - Mastic From 4" VCB		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Brown			**None Detected**
Sample ID 13-31 *061516394-0031*		**Description**	Womens Rm S Wall - Mastic From 4" VCB		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Brown			**None Detected**
Sample ID 14-32 *061516394-0032*		**Description**	Community Rm @ S. Entry - Beige Speckled 12"/12" VFT #1		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige			**Inconclusive : <1%Chrysotile** **Inconclusive - <1% Total**
TEM NYS 198.4 NOB	10/30/2015	Beige			**2.7% Chrysotile** **2.7% Total**
Sample ID 14-33 *061516394-0033*		**Description**	Mens Rm @ E. Entry - Beige Speckled 12"/12" VFT #1		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige			**Inconclusive : <1%Chrysotile** **Inconclusive - <1% Total**
TEM NYS 198.4 NOB	10/30/2015				**Positive Stop (Not Analyzed)**
Sample ID 15-34 *061516394-0034*		**Description**	Community Rm @ S. Entry - Mastic From 12"/12" Beige Speckled VFT (Black)		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**Inconclusive: None Detected**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID	15-35 *061516394-0035*	**Description** **Homogeneity**	Mens Rm @ E. Entry - Mastic From 12"/12" Beige Speckled VFT (Black) Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**2.6% Chrysotile** **2.6% Total**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID	16-36 *061516394-0036*	**Description** **Homogeneity**	Community Rm @ S. Entry - Brown Speckled 12/12" VFT Grey Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**22.3% Chrysotile** **22.3% Total**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID	16-37 *061516394-0037*	**Description** **Homogeneity**	Utility Rm @ S - Brown Speckled 12/12" VFT Grey		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015				**Positive Stop (Not Analyzed)**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID	17-38 *061516394-0038*	**Description** **Homogeneity**	Comm Rm @ S Entry - Mastic From Brown Speckled (Black) VFT Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**1.7% Chrysotile** **1.7% Total**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID	17-39 *061516394-0039*	**Description** **Homogeneity**	Utility Rm @ S - Mastic From Brown Speckled (Black) VFT		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015				**Positive Stop (Not Analyzed)**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID	18-40 *061516394-0040*	**Description** **Homogeneity**	Command Rm Floor - Beige Speckled 12/12" VFT #2 Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Beige			**None Detected**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 18-41 *061516394-0041*		**Description**	Womens Rm Floor - Beige Speckled 12/12" VFT #2		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Beige			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Beige			**None Detected**
Sample ID 19-42 *061516394-0042*		**Description**	Command Rm Floor - Mastic From 12"/12" Beige Speckled VFT #2		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Yellow			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Yellow			**None Detected**
Sample ID 19-43 *061516394-0043*		**Description**	Womens Rm Floor - Mastic From 12"/12" Beige Speckled VFT #2		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Yellow			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Yellow			**None Detected**
Sample ID 20-44 *061516394-0044*		**Description**	Lounge Rm At Bar @ E - Orange Speckled Rolled Vinyl Flooring		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Orange			**Inconclusive : <1%Chrysotile** **Inconclusive - <1% Total**
TEM NYS 198.4 NOB	10/30/2015	Orange			**None Detected**
Sample ID 20-45 *061516394-0045*		**Description**	Lounge Rm At Bar @ W - Orange Speckled Rolled Vinyl Flooring		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Orange			**Inconclusive : <1%Chrysotile** **Inconclusive - <1% Total**
TEM NYS 198.4 NOB	10/30/2015	Orange			**None Detected**
Sample ID 21-46 *061516394-0046*		**Description**	Lounge Rm At Bar @ E - Tan Adhesive From Rolled Vinyl		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Tan			**52.7% Chrysotile** **52.7% Total**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 21-47 *061516394-0047*		**Description** Lounge Rm At Bar @ W - Tan Adhesive From Rolled Vinyl **Homogeneity**			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015				**Positive Stop (Not Analyzed)**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 22-48 *061516394-0048*		**Description** Lounge Rm Floor @ E Ctr under Vinyl Flooring W - Off-White Cementitious Floor Leveling Compound **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 22-49 *061516394-0049*		**Description** Lounge Rm Floor @ E Ctr under Vinyl Flooring W - Off-White Cementitious Floor Leveling Compound **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 22-50 *061516394-0050*		**Description** Lounge Rm Floor @ E Ctr under Vinyl Flooring W - Off-White Cementitious Floor Leveling Compound **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 23-51 *061516394-0051*		**Description** Lounge Rm Floor @ E - Tan Carpeting Adhesive **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Tan			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Tan			**<1% Chrysotile** **<1% Total**
Sample ID 23-52 *061516394-0052*		**Description** Under Carpeting W - Tan Carpeting Adhesive **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Tan			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Tan			**<1% Chrysotile** **<1% Total**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 24-53 *061516394-0053*		**Description** Lounge @ W Entry Door Frame - Grey Thinset/Mortar With Coating **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		40.00% Quartz 60.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 24-54 *061516394-0054*		**Description** Lounge @ HVAC Closet - Grey Thinset/Mortar With Coating **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Brown		45.00% Quartz 55.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 24-55 *061516394-0055*		**Description** Lounge @ HVAC Closet - Grey Thinset/Mortar With Coating **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Brown		40.00% Quartz 60.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 25-56 *061516394-0056*		**Description** Garage @ N Wall (West) - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 25-57 *061516394-0057*		**Description** Garage @ N Wall (East) - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 25-58 *061516394-0058*		**Description** Garage @ E Wall (North) - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 25-59 *061516394-0059*		**Description** Garage @ E Wall (CTR) - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 25-60 *061516394-0060*		**Description** Garage @ E Wall (North) - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 25-61 *061516394-0061*		**Description** Garage @ S Wall (West) - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 25-62 *061516394-0062*		**Description** Garage @ S Wall (East) - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 26-63 *061516394-0063*		**Description** Community Rm Wall @ East - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 26-64 *061516394-0064*		**Description** Community Rm Wall @ East - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 26-65 *061516394-0065*		**Description** Community Wall @ South E - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 26-66 *061516394-0066*		**Description** Community Wall @ CTR - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 26-67 *061516394-0067*		**Description** Community Wall @ West - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 27-68 *061516394-0068*		**Description** Lounge Rm Wall @ South E - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 27-69 *061516394-0069*		**Description** Lounge Rm Wall @ W - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 27-70 *061516394-0070*		**Description** Lounge Rm Wall @ South (CTr) - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 27-71 *061516394-0071*		**Description** Lounge Rm Wall @ West (North) - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 27-72 *061516394-0072*		**Description** Lounge Rm Wall @ (South) - Grey Interior CMU Mortar **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 28-73 *061516394-0073*		**Description** Lounge Rm Window Sill @ SE - Brown Wood Putty/Caulk **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Brown			**None Detected**
Sample ID 28-74 *061516394-0074*		**Description** Lounge Rm Window Sill @ SW - Brown Wood Putty/Caulk **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Brown			**None Detected**
Sample ID 29-75 *061516394-0075*		**Description** Garage East Façade @ N - Grey Exterior Facebrick Mortar **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 29-76 *061516394-0076*		**Description** Garage East Façade @ CTR - Grey Exterior Facebrick Mortar **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 29-77 *061516394-0077*		**Description** Garage East Façade @ S - Grey Exterior Facebrick Mortar **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		20.00% Quartz 80.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 30-78 *061516394-0078*		**Description** Community Rm Façade @ E - Grey Exterior Facebrick Mortar **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		40.00% Quartz 60.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 30-79 *061516394-0079*		**Description** Community Rm Façade @ E - Grey Exterior Facebrick Mortar **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		40.00% Quartz 60.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 30-80 *061516394-0080*		**Description** Community Rm Façade @ E - Grey Exterior Facebrick Mortar **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 30-81 *061516394-0081*		**Description** Community Rm Façade @ S - Grey Exterior Facebrick Mortar **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID	30-82 *061516394-0082*	**Description** **Homogeneity**	Community Rm Façade @ S - Grey Exterior Facebrick Mortar Heterogeneous		
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID	31-83 *061516394-0083*	**Description** **Homogeneity**	Lounge Rm Façade @ SE - Grey Exterior Facebrick Mortar Heterogeneous		
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID	31-84 *061516394-0084*	**Description** **Homogeneity**	Lounge Rm Façade @ CTR - Grey Exterior Facebrick Mortar Heterogeneous		
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID	31-85 *061516394-0085*	**Description** **Homogeneity**	Lounge Rm Façade @ SW - Grey Exterior Facebrick Mortar Heterogeneous		
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID	32-86 *061516394-0086*	**Description** **Homogeneity**	Lounge Rm Façade @ West - White Painted Facebrick Mortar Homogeneous		
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 32-87 *061516394-0087*		**Description** Lounge Rm Façade @ West - White Painted Facebrick Mortar **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 32-88 *061516394-0088*		**Description** Lounge Rm Façade @ West - White Painted Facebrick Mortar **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 32-89 *061516394-0089*		**Description** Lounge Rm Façade @ North - White Painted Facebrick Mortar **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 32-90 *061516394-0090*		**Description** Lounge Rm Façade @ North - White Painted Facebrick Mortar **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable	10/29/2015	Gray		50.00% Quartz 50.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 33-91 *061516394-0091*		**Description** Lounge Rm Façade @ South - Brown Elastic Exterior Caulking **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Brown			**None Detected**
Sample ID 33-92 *061516394-0092*		**Description** Lounge Rm Façade @ West Window Sill - Brown Elastic Exterior Caulking **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Brown			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Brown			**None Detected**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 33-93 *061516394-0093*		**Description** Community Rm @ South - Grey Hardened Exterior Window Caulk **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Gray			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Gray			**None Detected**
Sample ID 33-94 *061516394-0094*		**Description** Community Rm @ East Window Sill - Grey Hardened Exterior Window Caulk **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Gray			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Gray			**None Detected**
Sample ID 34-95 *061516394-0095*		**Description** South Façade West of Entry - Grey Straited Expansion/Joint **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Brown	95.00% Cellulose	5.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 34-96 *061516394-0096*		**Description** South Façade West of Entry - Grey Straited Expansion/Joint **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	10/29/2015	Brown	95.00% Cellulose	5.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 35-97 *061516394-0097*		**Description** Garage Floor @ North - Off-White Paving Caulk/Expansion Jt Filler **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	White			**6.3% Chrysotile** **6.3% Total**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 35-98 *061516394-0098*		**Description** Garage Floor @ South - Off-White Paving Caulk/Expansion Jt Filler **Homogeneity**			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015				**Positive Stop (Not Analyzed)**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 36-99 *061516394-0099*		**Description**	Roof Tower Pitch Pocket - White Elastic Covering/Sealant		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	White			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	White			**<1% Anthophyllite** **<1% Total**
Sample ID 36-100 *061516394-0100*		**Description**	Roof Tower Pitch Pocket - White Elastic Covering/Sealant		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	White			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	White			**None Detected**
Sample ID 37-101 *061516394-0101*		**Description**	Garage Roof Vent Stack @ S. West - Stray Tar/Flashing		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Black			**31.1% Chrysotile** **31.1% Total**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 37-102 *061516394-0102*		**Description**	Garage Roof Vent Stack @ S. West - Stray Tar/Flashing		
		Homogeneity			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015				**Positive Stop (Not Analyzed)**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 38-103 *061516394-0103*		**Description**	Garage/Community Rm Party Wall At Roof (South Wall - Grey Exterior Masonry Caulk		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Gray			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Gray			**None Detected**
Sample ID 38-104 *061516394-0104*		**Description**	Garage/Community Rm Party Wall At Roof (South Wall - Grey Exterior Masonry Caulk		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	10/29/2015	Gray			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	10/30/2015	Gray			**None Detected**

Initial Report From 10/30/2015 09:20:16

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516394
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

		Non Asbestos		
Test	**Color**	**Fibrous**	**Non-Fibrous**	**Asbestos**

Analyst(s)

Daniel Clarke

Keith McWilliams

Matthew Greco

Michelle McGowan, Laboratory Manager
or other approved signatory

NOB = Non Friable Organically Bound N/A = Not Applicable VCM = Vermiculite Containing Material

-In New York State, TEM is currently the only method that can be used to determine if NOB materials can be considered or treated as non-asbestos containing.
All samples examined for the presence of vermiculite when analyzed via NYS 198.1.
-NYS Guidelines for Vermiculite containing samples are available at http://www.wadsworth.org/labcert/elapcert/forms/VermiculiteInterimGuidance_Rev070913.pdf
EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples were received in good condition unless otherwise noted.
This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. This report may contain data that is not covered by the NVLAP accreditation.

Samples analyzed by EMSL Analytical, Inc. Carle Place, NY NYS ELAP 11469

Initial Report From 10/30/2015 09:20:16

APPENDIX C:

LEAD PAINT SAMPLING CHAIN-OF-CUSTODY / SURVEY FORMS
&
LABORATORY ANALYTICAL DATA SHEETS

061516392

LEAD BASED PAINT CHIP SAMPLING CHAIN-OF-CUSTODY

Location Address: ROTTERDAM JUNCTION FIREHOUSE
Applicant Name:
Applicant No.: DASNY 328250
Risk Assessor Name: MORSE, JAMES
Date: 10/19/15
LiRo Job No.: 14-128-1256 / WO 15
Turn Around Time: 48 or 72 Hours (Circle One)
Arrival Time at Location (Use Military Time): 0830
Departure Time From Site (Use Military Time):

Sample No	Room	Component	Substrate	Wall	Rep #	Notes
L-01	BATHRM	WALL	SHEETROCK	1	4	
L-02	COMM RM	DOOR FR	METAL	1	3	
L-03	EXTERIOR	WALL	CMU	3	3	

RECEIVED ANALYTICAL PLACE 2015 OCT 27 PM 6:05

Relinquished By (Print/Date/Time)	Relinquished By (Print/Date/Time)	Received By (Print/Date/Time)	PLM Analysis (signature/time)
MORSE, JAMES 10/19/15		Terrence Miller 10/27/15 6:05	Pb- 10/27/15
Relinquished By (Signature)	Relinquished By (Signature)	Received By (Signature)	TEM Analysis (signature/time)
		Terrence Miller	

EMAIL RESULTS TO EQETJ@LIRO.COM

*Notes- Results Requested in % by Weight

Substrate
M: Metal
PL: Plaster
W: Wood
CB: Cinder Block
S: Sheetrock/Drywall
C: Concrete
BR: Brick
V: Vinyl

OrderID: 061516392

EMSL Analytical, Inc.
528 Mineola Avenue, Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com carleplacelab@emsl.com

EMSL Order:	061516392
CustomerID:	LIRO50A
CustomerPO:	
ProjectID:	

Attn: **John Eget**
Liro Engineers, Inc.
3 Aerial Way
Syosset, NY 11791

Phone:	(516) 938-5476
Fax:	(516) 937-5421
Received:	10/27/15 6:05 PM
Collected:	10/19/2015

Project: **Rotterdam Junction Firehouse, APP No.: DASNY 328250, Liro Job No.: 14-128-1256/ WO 15**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

Client Sample Description	*Lab ID*	*Collected*	*Analyzed*	*Lead Concentration*
L-01	*061516392-0001*	10/19/2015	10/27/2015	<0.010 % wt
	Site: Bath Rm Wall Desc: Sheetrock			
L-02	*061516392-0002*	10/19/2015	10/27/2015	<0.010 % wt
	Site: Comm Rm Door Fr Desc: Metal			
L-03	*061516392-0003*	10/19/2015	10/27/2015	0.97 % wt
	Site: Exterior Wall Desc: CMU			

Michelle McGowan, Laboratory Manager
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Analytical, Inc. Carle Place, NY Lab ID 102344 is accredited by the AIHA-LAP, LLC in the Environmental Lead accreditation program for Lead in Paint, CT PH-0249, NYS ELAP 11469

Initial report from 10/28/2015 12:41:41

APPENDIX D:

PCB SAMPLING CHAIN-OF-CUSTODY / SURVEY FORMS
&
LABORATORY ANALYTICAL DATA SHEETS

011506521

The LiRo Group

POLYCHLORINATED BIPHENYL (PCB) FIELD DATA FORM AND BULK SAMPLING CHAIN-OF-CUSTODY
ANALYZE BY 3540C/8082A

Location Address: 1215 Main Street, Rotterdam, NY 12150	Location Description: Rotterdam Junction Volunteer Firehouse	
Client Name The Governor's Office of Storm Recovery	Inspector: James Morse	Date: 10/23/2015
LiRo Job No.: 14-128-1256 / WO15	Turn Around Time: 5 DAY	E-Mail Results To: LABREPORTS@RECREATENYS.ORG
Arrival Time at Location (Use Military Time): 0830	Departure Time From Site (Use Military Time):	

Sample ID No.	Material Description	Material Location	Notes/ Material Qty.
1 A	INTERIOR SILL BROWN WINDOW PUTTY	LOUNGE WINDOW SILL	
2 B	EXT. WINDOWSILL CAULK (GREY)	COMMUNITY RM "	
3 C	EXT MASONRY CAULK (GREY)	GARAGE S. WALL @ ROOF	
4 D	WHITE SEALANT/CAULK	ROOF TOWER PITCH POCKET	

RECEIVED ANALYTICAL LIRO PLACE 2015 OCT 27 PM 6:04

Relinquished By (Print/Date/Time) MORSE, JAMES 10/27/15	Received By (Print/Date/Time) Terrance Miller 10/27/15 6:04PM	~~Analyst~~ (signature/time) Reid 10/29/15 0930 4°C Meek in possic
Relinquished By (Signature)	Received By (Signature) Terrance Miller	

PAGE _____ OF _____

OrderID: 011506521

Page 1 Of 1

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 303-2500 Fax: (856) 858-4571 Email: EnvChemistry2@emsl.com

Attn: **james morse**
Liro Engineers, Inc.
100 Duffy Avenue
Suite 402
Hicksville, NY 11801

Phone: (516) 595-2900
Fax: (516) 937-5421

11/5/2015

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 10/29/2015. The results are tabulated on the attached data pages for the following client designated project:

14-128-1256/WO15

The reference number for these samples is EMSL Order #011506521. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 303-2500.

Reviewed and Approved By:

Julie Smith - Laboratory Director

The test results contained within this report meet the requirements of NELAP and/or the specific certification program that is applicable, unless otherwise noted.
NELAP Certifications: NJ 03036, NY 10872, PA 68-00367

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the NELAP, unless specifically indicated. All results for soil samples are reported on a dry weight basis, unless otherwise noted. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order: 011506521
CustomerID: LIRO50A
CustomerPO:
ProjectID:

Attn: **james morse**
Liro Engineers, Inc.
100 Duffy Avenue
Suite 402
Hicksville, NY 11801

Phone: (516) 595-2900
Fax: (516) 937-5421
Received: 10/29/15 9:30 AM

Project: **14-128-1256/WO15**

Analytical Results

Client Sample Description A
Lounge Window Sill
Collected: 10/23/2015 ***Lab ID:*** *0001*

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3540C/8082A	Aroclor-1016	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1221	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1232	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1242	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1248	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1254	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1260	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1262	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1268	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH

Client Sample Description B
Community Rm
Collected: 10/23/2015 ***Lab ID:*** *0002*

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3540C/8082A	Aroclor-1016	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1221	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1232	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1242	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1248	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1254	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1260	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1262	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1268	ND	0.98	mg/Kg	11/3/2015	AB	11/4/2015	EH

Client Sample Description C
Garage S. Wall @ Roof
Collected: 10/23/2015 ***Lab ID:*** *0003*

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3540C/8082A	Aroclor-1016	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1221	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1232	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1242	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1248	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1254	1.3	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1260	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1262	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1268	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order: 011506521
CustomerID: LIRO50A
CustomerPO:
ProjectID:

Attn: **james morse**
Liro Engineers, Inc.
100 Duffy Avenue
Suite 402
Hicksville, NY 11801

Phone: (516) 595-2900
Fax: (516) 937-5421
Received: 10/29/15 9:30 AM

Project: **14-128-1256/WO15**

Analytical Results

Client Sample Description D
Roof Tower Pitch Pocket

Collected: 10/23/2015 ***Lab ID:*** *0004*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3540C/8082A	Aroclor-1016	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1221	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1232	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1242	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1248	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1254	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1260	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1262	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH
3540C/8082A	Aroclor-1268	ND	0.82	mg/Kg	11/3/2015	AB	11/4/2015	EH

Definitions:
ND - indicates that the analyte was not detected at the reporting limit
RL - Reporting Limit

APPENDIX E:

PHOTOGRAPHIC DOCUMENTATION

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

1.

DESCRIPTION:

View of firehouse marquee at southeast corner of property.

PHOTO NO.:

2.

DESCRIPTION:

Exterior view of firehouse from the street.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

3.

DESCRIPTION:

Exterior view of firehouse main entrance and natural gas service.

PHOTO NO.:

4.

DESCRIPTION:

Exterior view of electric service attached to soffit.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

5.

DESCRIPTION:

View of natural gas meter at main building entrance.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

6.

DESCRIPTION:

View of aluminum window on east side of building.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

7.

DESCRIPTION:

Exterior view of building with cornerstone.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

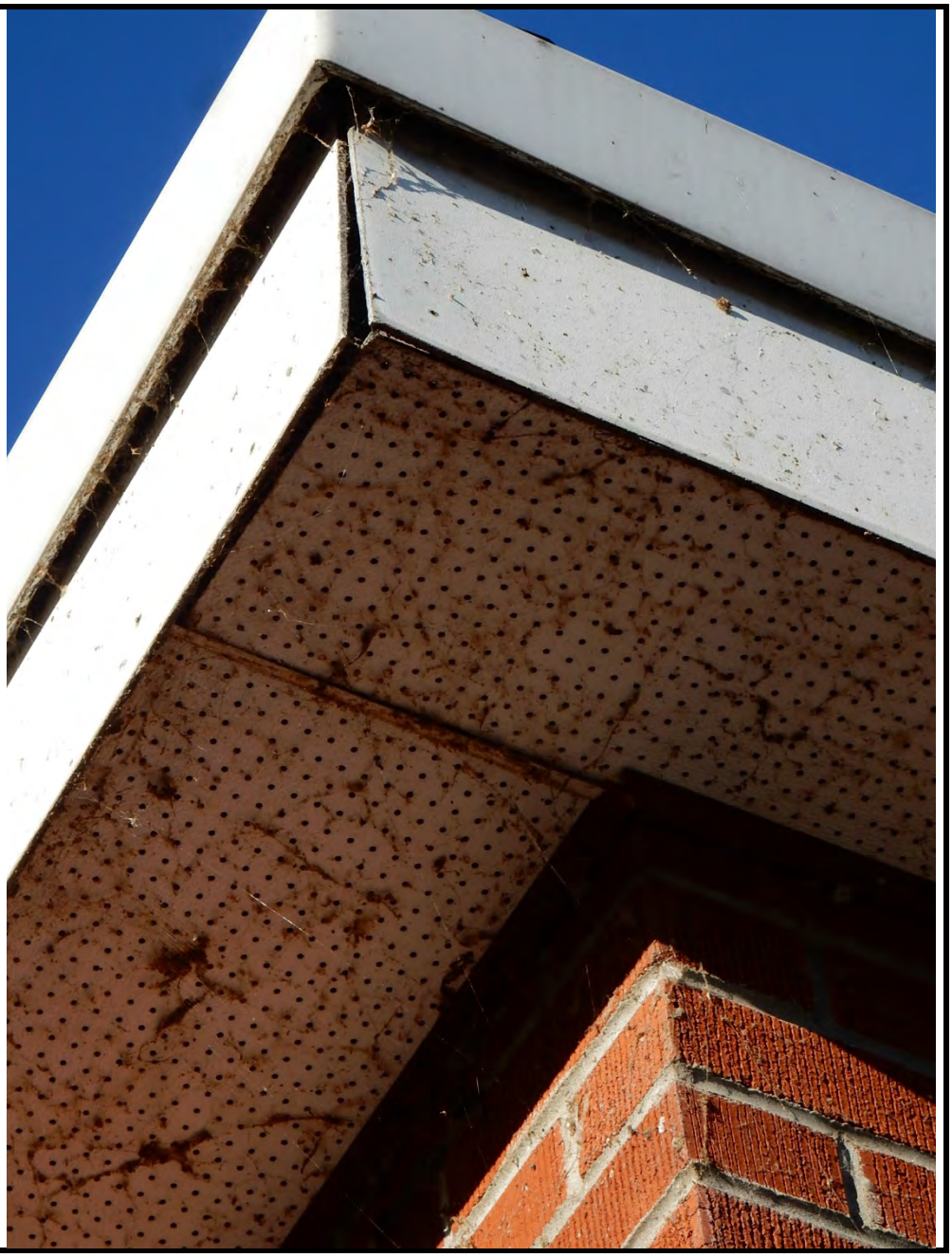
CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

8.

DESCRIPTION:

Exterior view of fascia and soffit on southeast corner of building.



LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

9.

DESCRIPTION:

View of Community Room from northeast corner.

PHOTO NO.:

10.

DESCRIPTION:

View of Community Room from northwest corner.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

11.

DESCRIPTION:

View of Lounge from northwest corner.

PHOTO NO.:

12.

DESCRIPTION:

View of Lounge, including Air Handler Room entrance, from southwest corner.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

13.

DESCRIPTION:

View of Lounge from east looking towards Community Room.

PHOTO NO.:

14.

DESCRIPTION:

View of air handler up to flex hose ductwork.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

15.

DESCRIPTION:

View of electric panel on north wall of Lounge.

PHOTO NO.:

16.

DESCRIPTION:

View of CMU behind electric panel in Lounge.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

17.

DESCRIPTION:

View of Lounge sink from underneath.

PHOTO NO.:

18.

DESCRIPTION:

View of Lounge HVAC air handler from exterior wall.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

19.

DESCRIPTION:

View of Office from Community Room.

PHOTO NO.:

20.

DESCRIPTION:

View of Kitchen entrance from Community Room.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

21.

DESCRIPTION:

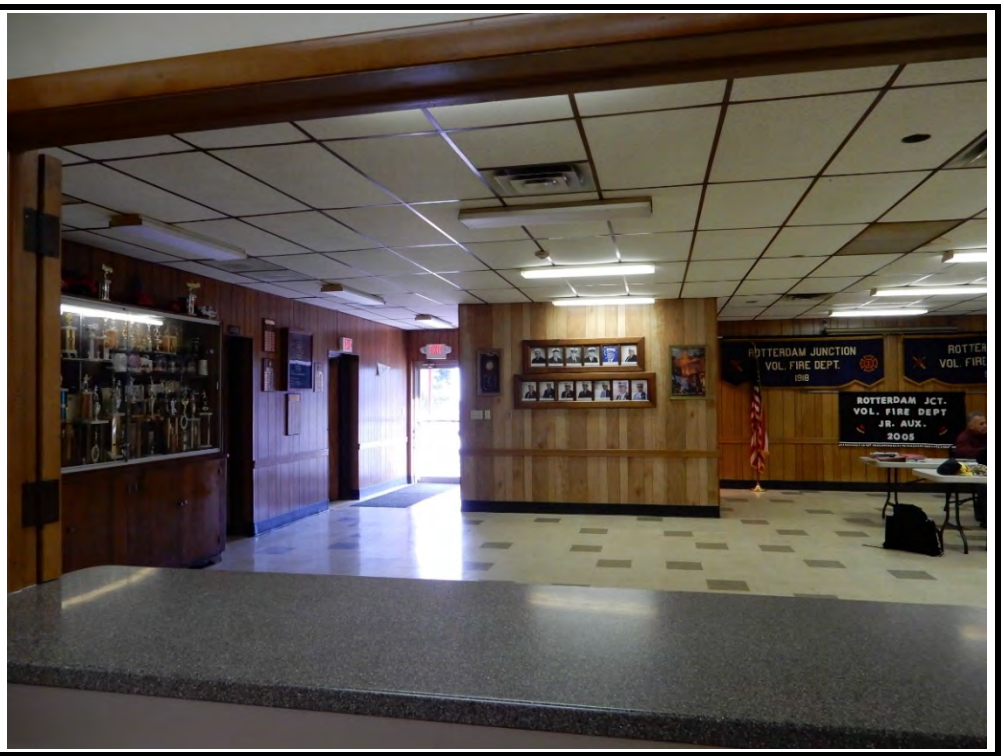
View of Kitchen from the south.

PHOTO NO.:

22.

DESCRIPTION:

View of Community Room from the Kitchen.



LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

23.

DESCRIPTION:

View of Men's Room door from Community Room.

PHOTO NO.:

24.

DESCRIPTION:

View of Men's Room flooring.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

25.

DESCRIPTION:

View of Men's Room from the east.

PHOTO NO.:

26.

DESCRIPTION:

View of Men's Room sheetrock ceiling above lay-in ceiling tile.

PHOTO NO.:

27.

DESCRIPTION:

View of Men's Room exhaust fan.

PHOTO NO.:

28.

DESCRIPTION:

View of Ladies Room from Community Room.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

29.

DESCRIPTION:

View of drywall ceiling and CMU walls in ladies room.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

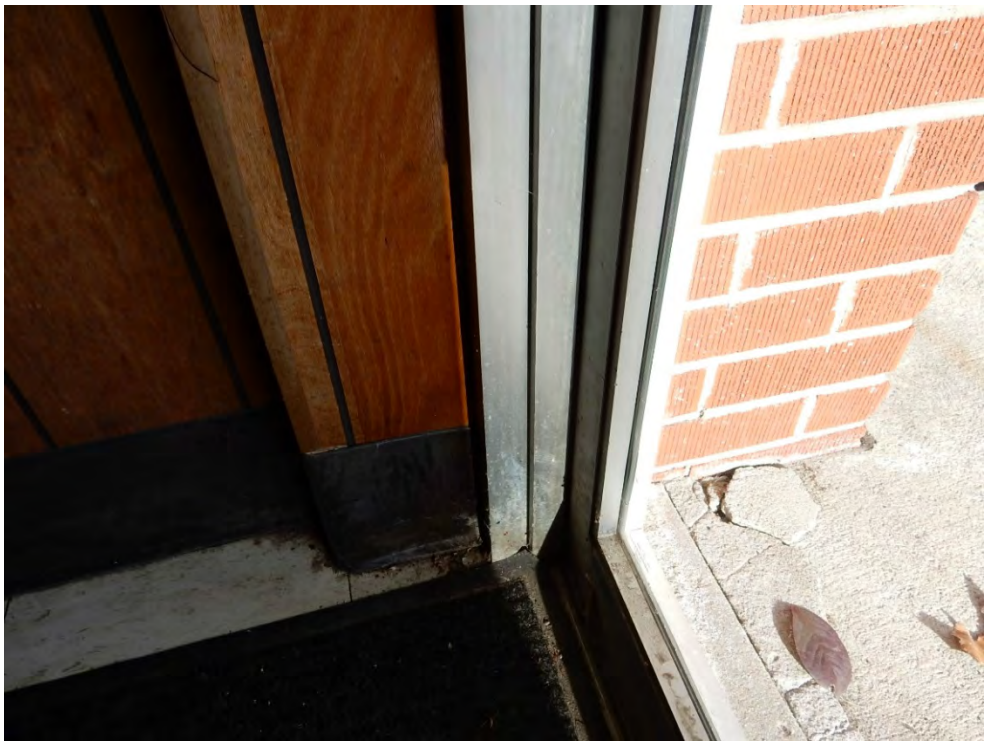
CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

30.

DESCRIPTION:

View of east entry floor condition.



LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

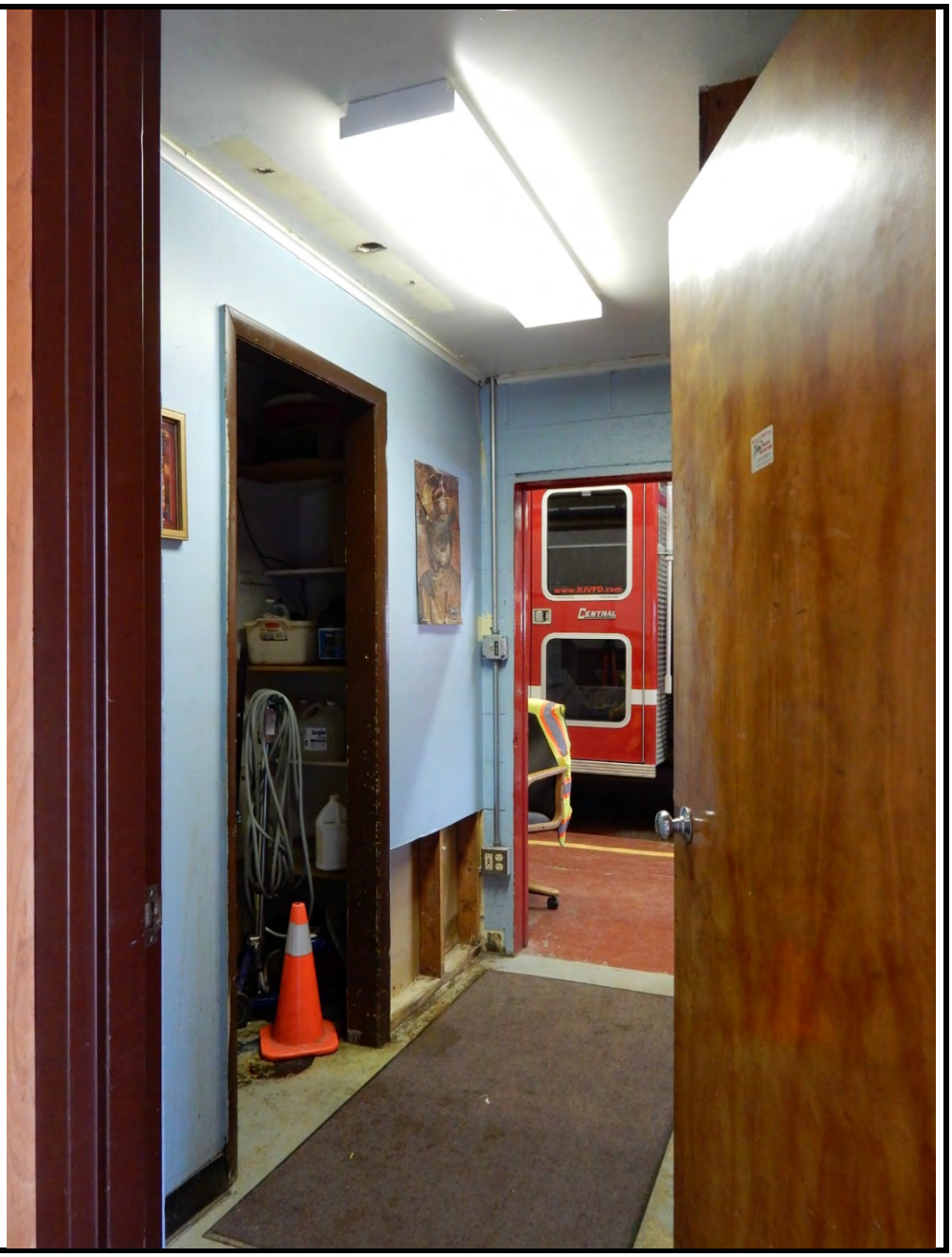
CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

31.

DESCRIPTION:

View of corridor with hot water heater on the left and Command Room on the right.



LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

32.

DESCRIPTION:

View of electric hot water room from corridor.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

33.

DESCRIPTION:

View of hot water heater, CMU walls, and sheetrock walls.

PHOTO NO.:

34.

DESCRIPTION:

View of west wall in Hot Water Heater Room.

PHOTO NO.:

35.

DESCRIPTION:

View of Community Room corridor floor.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

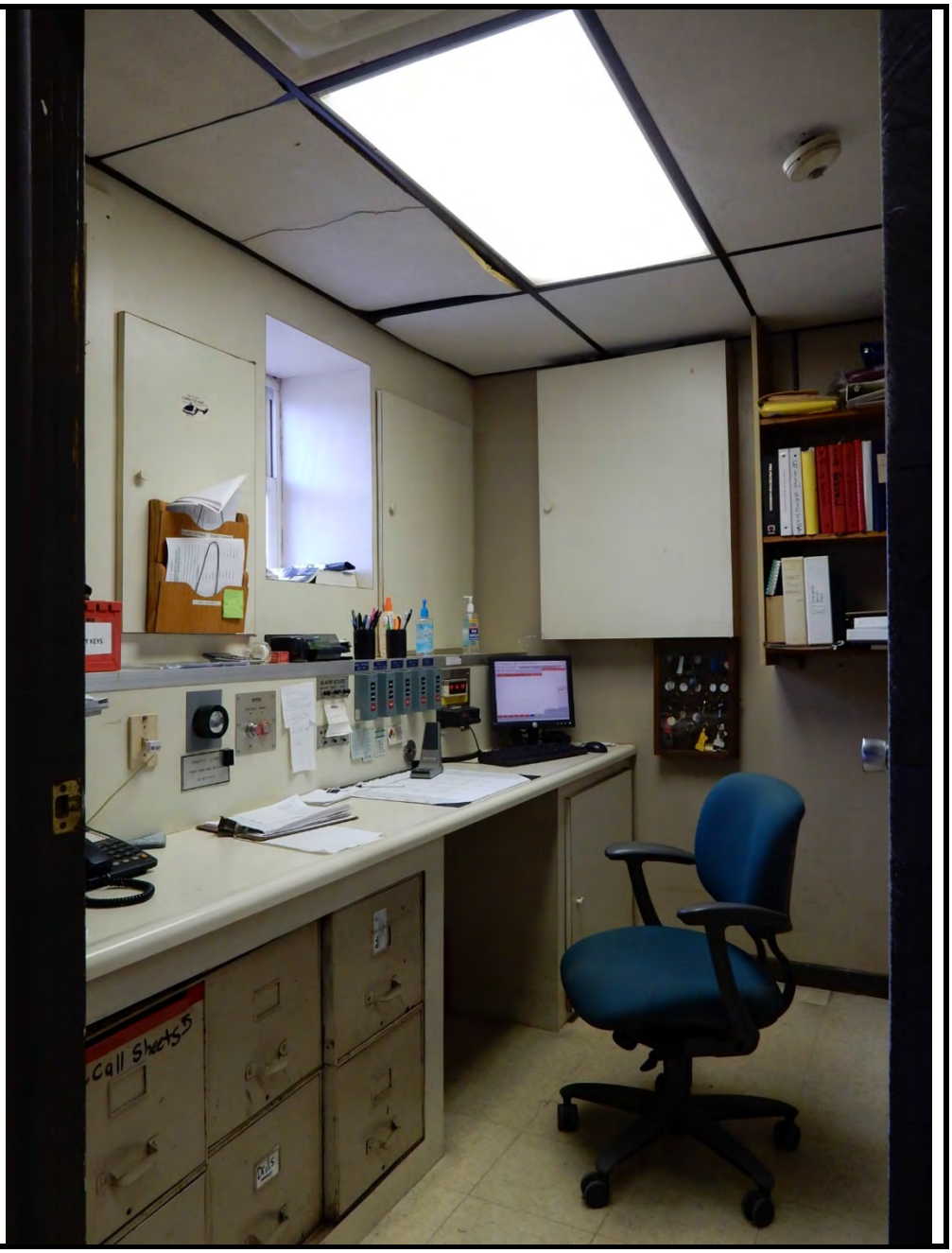
CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

36.

DESCRIPTION:

View of Command Room from southeast with 3 electrical panels.



LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

37.

DESCRIPTION:

View of Garage floor, ceiling, and Garage door system.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

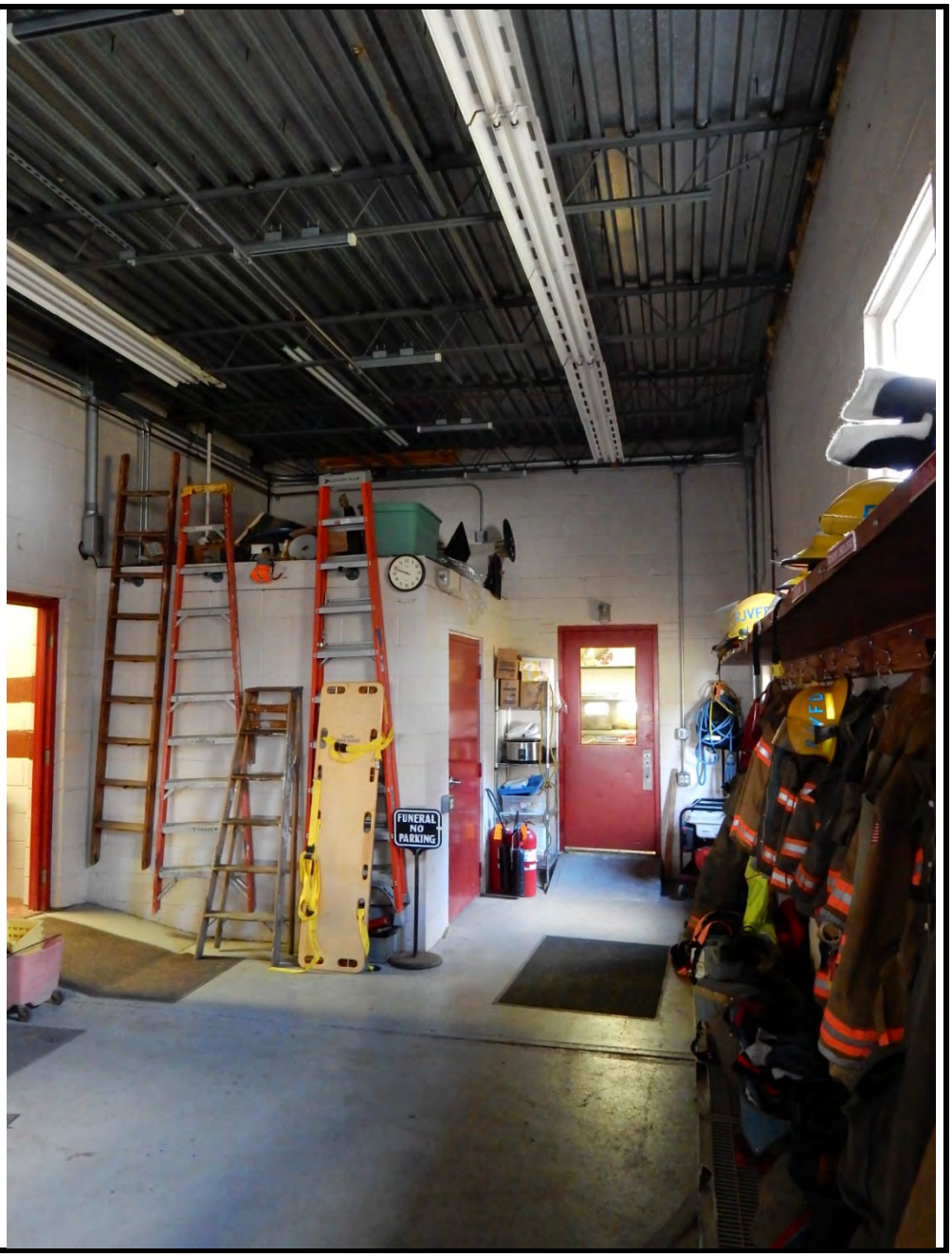
CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

38.

DESCRIPTION:

View of northwest Garage Bay with Hazard Storage Room. Looking towards the Kitchen.



LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

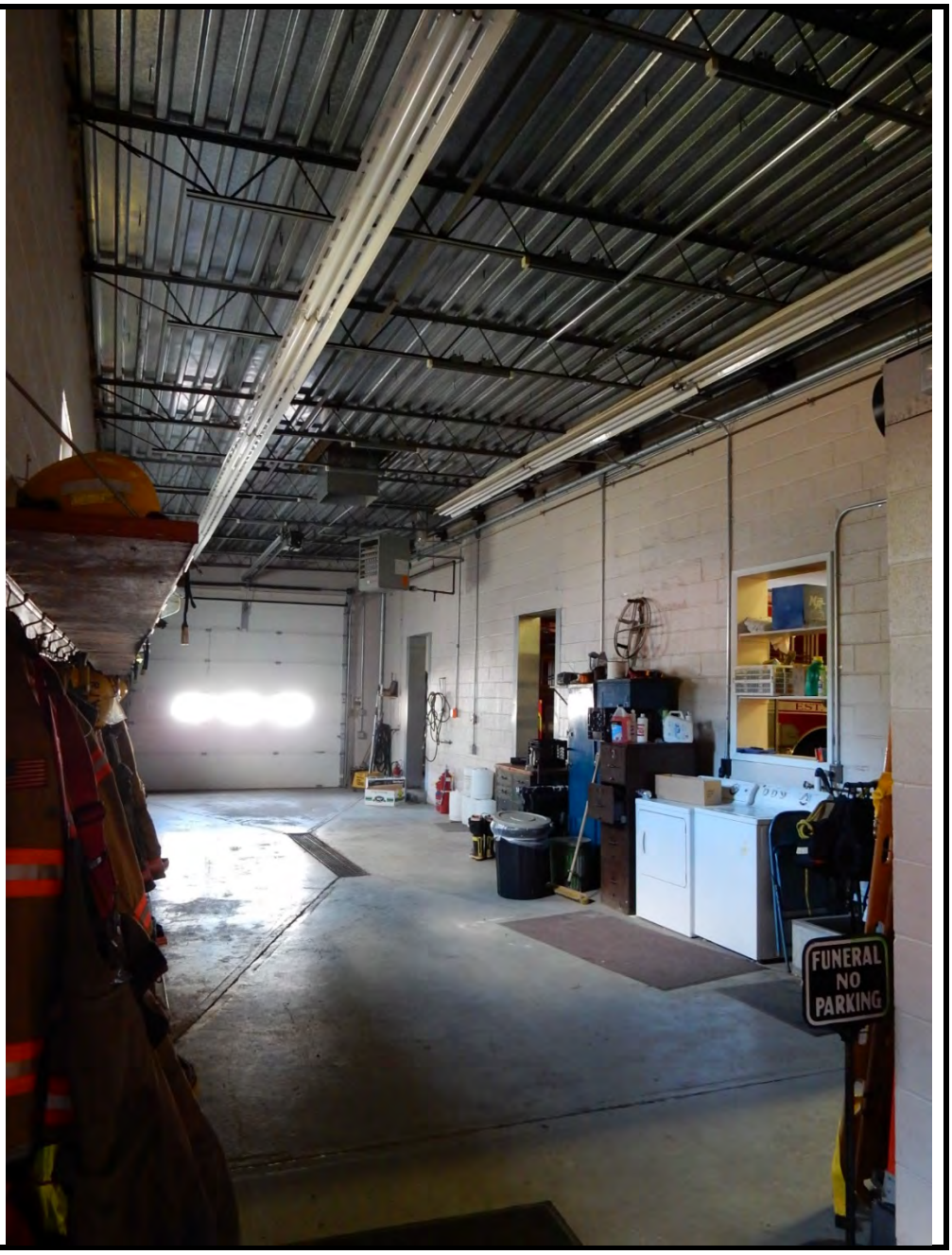
CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

39.

DESCRIPTION:

View of northwest section of Garage Bay from the north.



LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

40.

DESCRIPTION:

View of Kitchen and Community Room floors from Kitchen.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

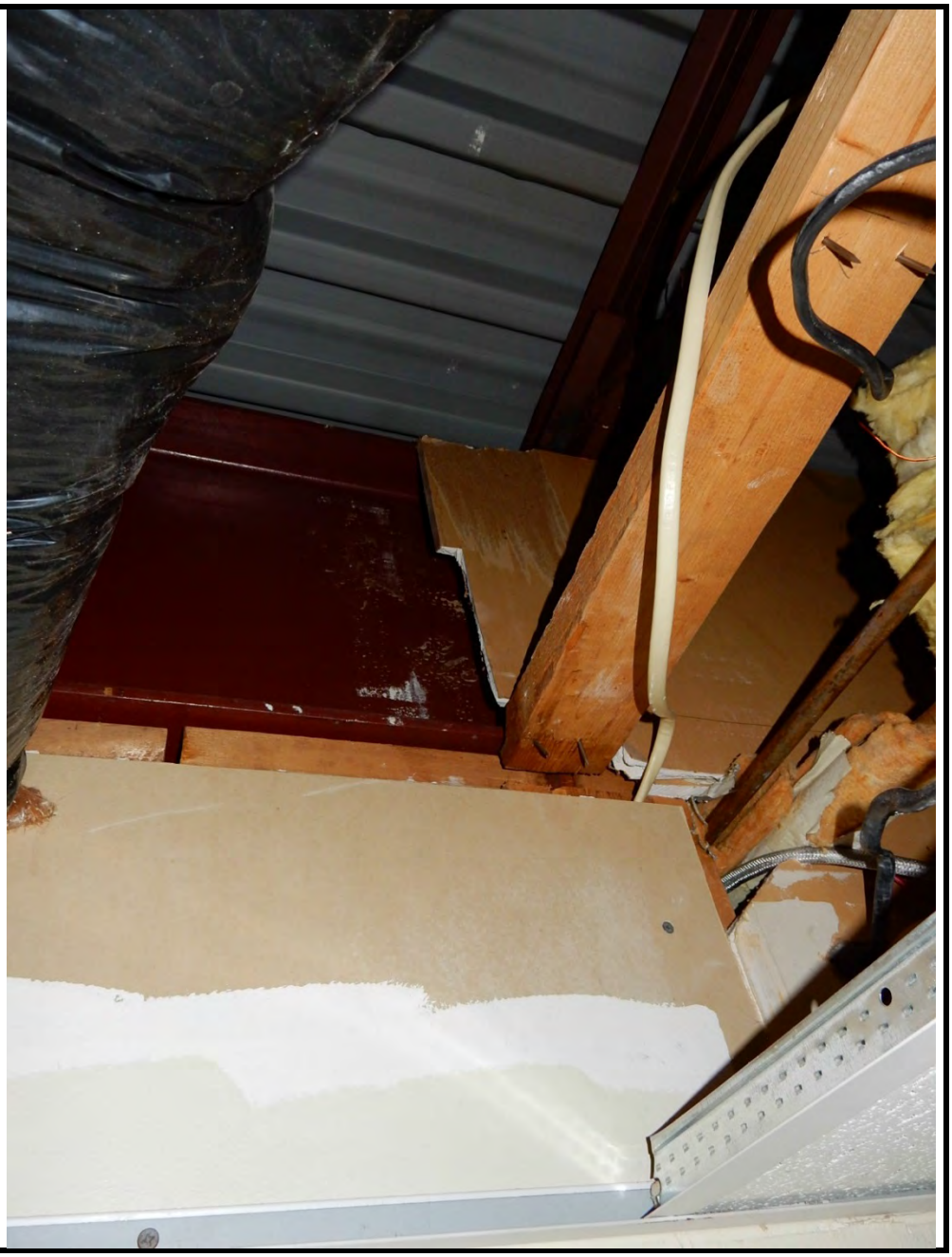
CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

41.

DESCRIPTION:

View of the west exterior wall of Lounge with plenum and steel I-beam.



LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

42.

DESCRIPTION:

View of Lounge entry on west wall.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

43.

DESCRIPTION:

View of Lounge west wall. No glue or waterproofing between layers.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

44.

DESCRIPTION:

View of Lounge ceiling plenum and insulation batting.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

45.

DESCRIPTION:

View of Lounge HVAC Closet on south wall.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

46.

DESCRIPTION:

View of exterior wall of Lounge HVAC closet at floor.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

47.

DESCRIPTION:

View of rolled flooring and tan glue at the Lounge west entrance.

PHOTO NO.:

48.

DESCRIPTION:

View of Lounge rolled flooring, carpeting, and glues.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

49.

DESCRIPTION:

View of Lounge south exterior wall.

PHOTO NO.:

50.

DESCRIPTION:

View of window and window putty on Lounge south wall.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

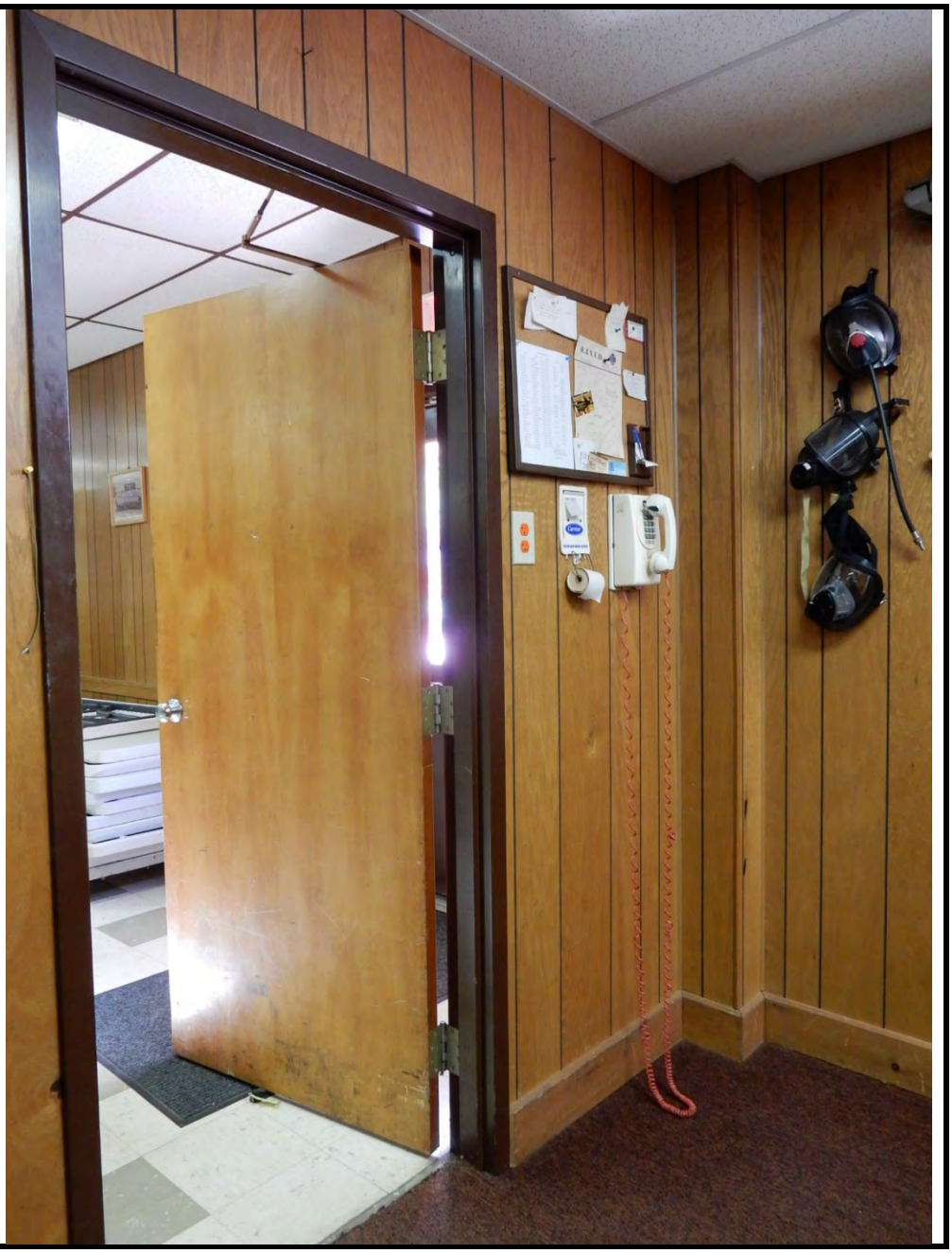
CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

51.

DESCRIPTION:

View of Lounge and Community Room drop ceiling and flooring.



LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

52.

DESCRIPTION:

View of paint on ceiling tiles in Community Room (left) and lack of paint on ceiling in Lounge (right).

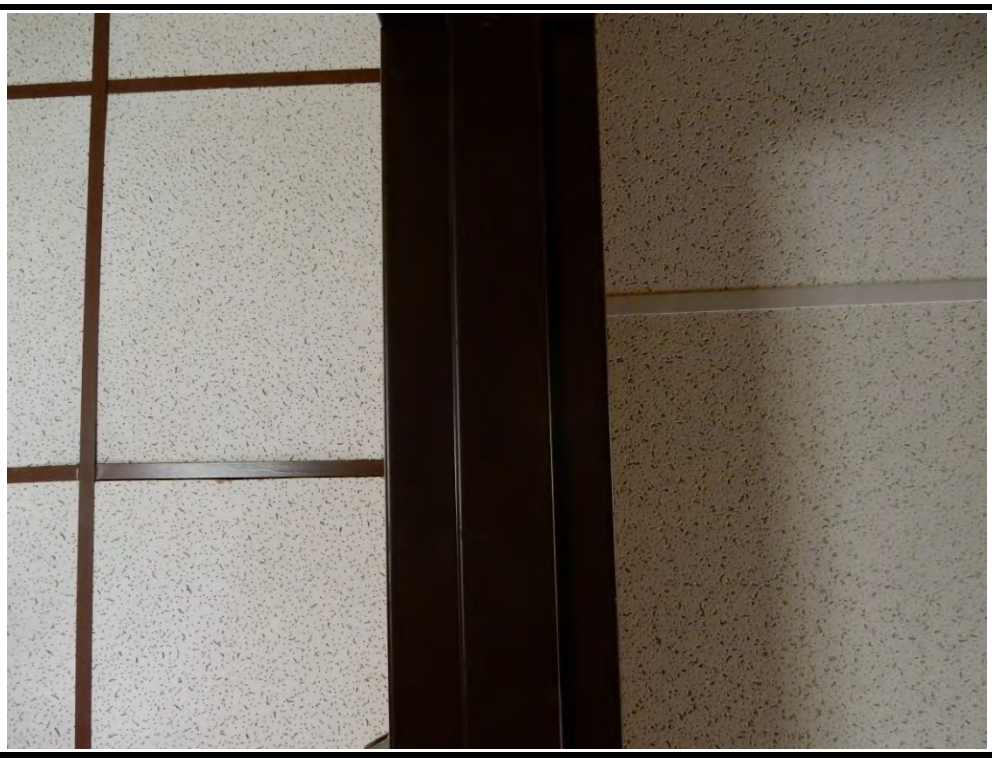


PHOTO NO.:

53.

DESCRIPTION:

View of Community Room ceiling (top) compared to Lounge ceiling tile (bottom).

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

54.

DESCRIPTION:

View of Command Room and Community Room office ceilings.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

55.

DESCRIPTION:

View of Command Room office ceiling tiles (left) compared to Community Room ceiling tiles (right).

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

56.

DESCRIPTION:

View of HVAC loft above Ladies Room facing north.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

57.

DESCRIPTION:

View of HVAC loft facing east including concrete ceiling beams.

PHOTO NO.:

58.

DESCRIPTION:

View of HVAC loft floor above Ladies Room sheetrock ceiling.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

59.

DESCRIPTION:

View of air handlers and chimneys in HVAC room.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

60.

DESCRIPTION:

View of HVAC loft chimney flue from the west.

PHOTO NO.:

61.

DESCRIPTION:

View of ceiling in loft (left) and Garage (right). The ceilings are the same.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

62.

DESCRIPTION:

View of Garage ceiling system facing north.

PHOTO NO.:

63.

DESCRIPTION:

View of Garage ceiling facing east.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

64.

DESCRIPTION:

View of Garage floors and exterior wall with expansion joint. No caulking in expansion joint.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

65.

DESCRIPTION:

View of older beige Community Room floor tiles.

PHOTO NO.:

66.

DESCRIPTION:

View of newer, different beige Command Room floor tiles.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

67.

DESCRIPTION:

View of exterior window with brown caulking.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

68.

DESCRIPTION:

View of exterior steel lintel.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

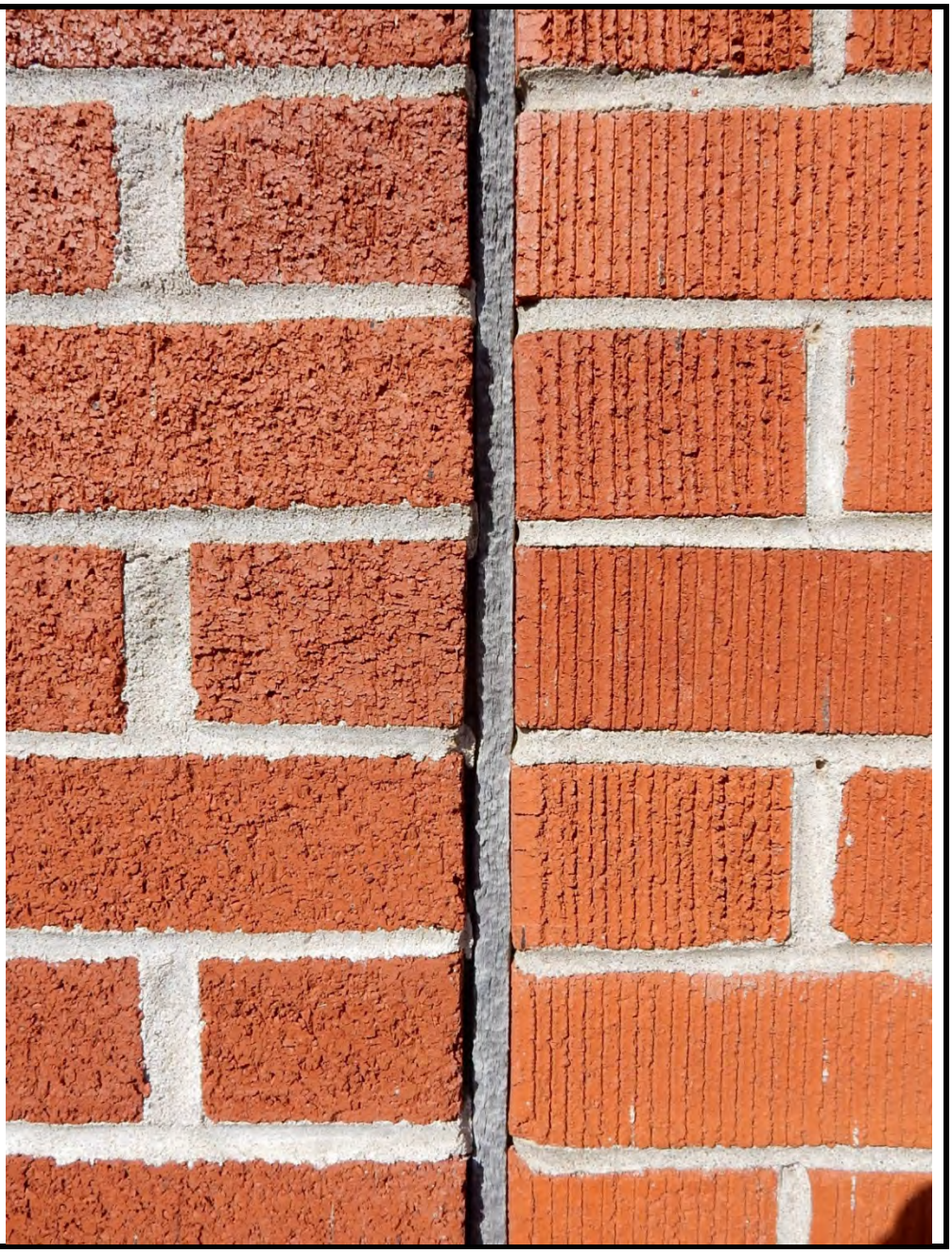
CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

69.

DESCRIPTION:

View of different brick and mortar work on exterior of building with expansion joint.



LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

70.

DESCRIPTION:

View of building exterior at Lounge from rear. Painted CMU.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

71.

DESCRIPTION:

View of Community Room south wall with aluminum window and gray caulking.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

72.

DESCRIPTION:

View of window sill with hard gray caulking.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

73.

DESCRIPTION:

View of northwest Garage bay roof from the south.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

74.

DESCRIPTION:

View of exterior wall where northwest Garage bay (left) meets main bays (right).

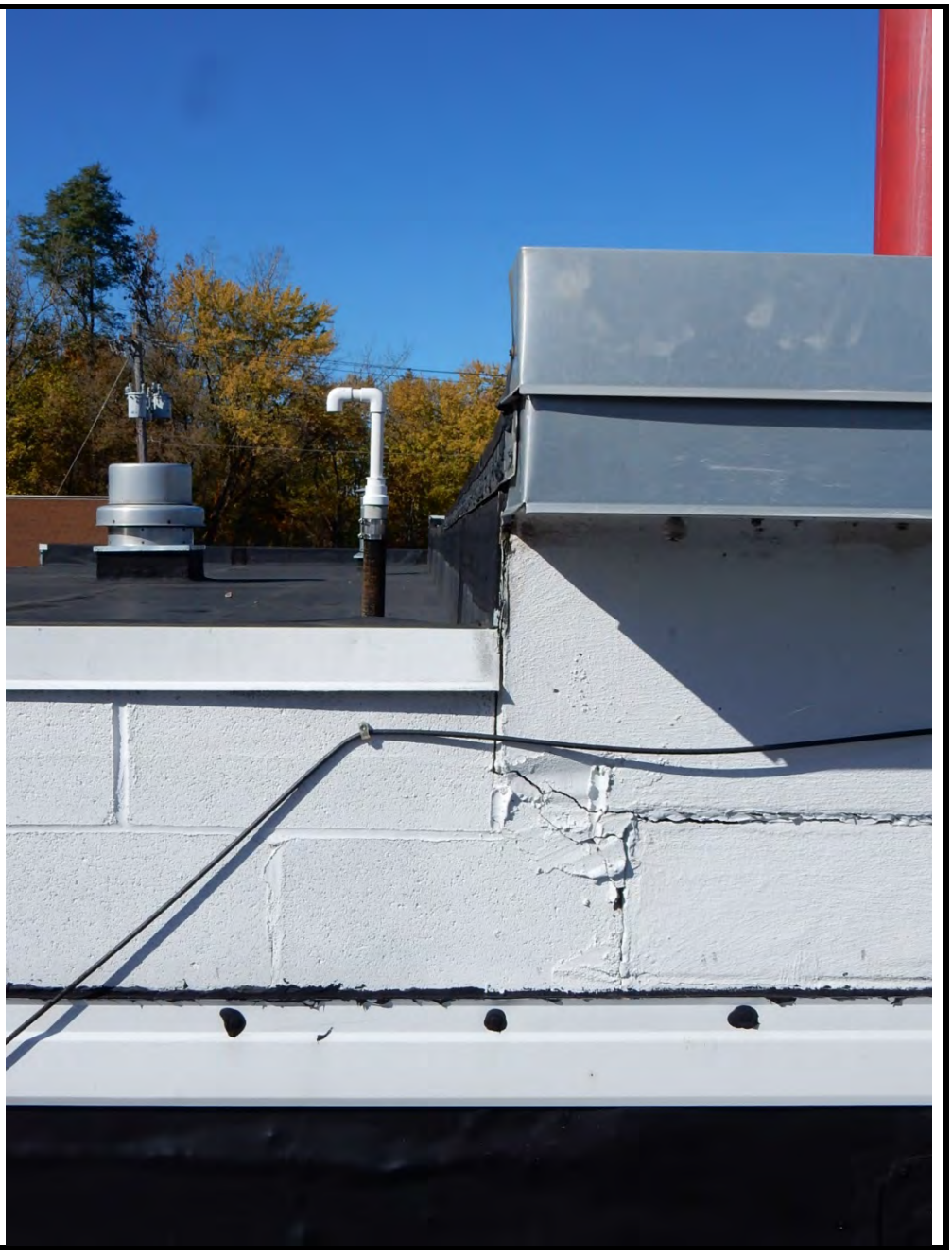


PHOTO NO.:

75.

DESCRIPTION:

View of electrical service entrance on main Garage.

PHOTO NO.:

76.

DESCRIPTION:

View of 3-leg electric service on main Garage roof.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

77.

DESCRIPTION:

View of Lounge roofing facing north.

PHOTO NO.:

78.

DESCRIPTION:

View of Community Room roof facing east.

PHOTO NO.:

79.

DESCRIPTION:

View of recent roof repairs on northwest Garage bay.

PHOTO NO.:

80.

DESCRIPTION:

View of recent roof repairs on northwest Garage bay.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

81.

DESCRIPTION:

View of main roof vent stack with flashing.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

82.

DESCRIPTION:

View of Garage siren tower pitch pocket with white sealant.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

83.

DESCRIPTION:

View of northwest Garage bay vent.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

84.

DESCRIPTION:

View of northwest Garage bay roof vent.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

85.

DESCRIPTION:

View of exhaust fan on northwest Garage Bay roof.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

86.

DESCRIPTION:

View of northwest Garage Bay flue/vent.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

87.

DESCRIPTION:

View of Garage north wall fascia and soffit. Wall has siding and a flue pipe.

PHOTO NO.:

88.

DESCRIPTION:

View of flashing on entrance canopy.

PHOTO NO.:

89.

DESCRIPTION:

View of 3 Command Room electrical panels.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

90.

DESCRIPTION:

View of Command Room panel 1.

LiRo Engineers, Inc.
A LiRo Group Company
3 Aerial Way • Syosset, NY 11791
Phone: 516-938-5476 • Fax: 516-987-7218

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:	PROJECT NAME:	PROJECT NO.:
The Governor's Office of Storm Recovery (GOSR)	Rotterdam Junction Volunteer Firehouse 1215 Main Street, Rotterdam, New York 12150	14-128-1256 / WO 15

PHOTO NO.:

91.

DESCRIPTION:

View of Command Room panel 2 with CMU exterior wall and plywood panel board.

TABLE 1:

SUMMARY OF ASBESTOS BULK SAMPLE RESULTS

TABLE 1
SUMMARY OF ASBESTOS BULK SAMPLE RESULTS
ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE
1215 MAIN STREET
ROTTERDAM, NY 12150
LIRO PROJECT NUMBER 14-128-1256 / WO 15

HOMOG. AREA	SAMPLE ID NUMBER	MATERIAL LOCATION	DESCRIPTION OF HOMOGENEOUS MATERIAL	RESULTS		
				PLM	PLM-NOB	TEM-NOB
1	1	Men's Room Ceiling	5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
1	2	Utility Room Ceiling	5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
1	3	HVAC Loft Wall	5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
2	4	Men's Room Ceiling	Spackle from 5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
2	5	Utility Room Ceiling	Spackle from 5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
2	6	HVAC Loft Wall	Spackle from 5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
3	7	Community Room South Wall	5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
3	8	Lounge HVAC Closet	5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
4	9	Community Room South Wall	Spackle from 5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
4	10	Lounge HVAC Closet	Spackle from 5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
5	11	Lounge West Wall	5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
5	12	Lounge West Wall	5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
6	13	Lounge West Wall	Spackle from 5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
6	14	Lounge West Wall	Spackle from 5/8" Sheetrock	None Detected	Not Analyzed	Not Analyzed
7	15	Community Room Ceiling - North	White Painted 24" x 48" Acoustical Lay-In Ceiling Tiles	Not Analyzed	Inconclusive	None Detected
7	16	Community Room Ceiling - South	White Painted 24" x 48" Acoustical Lay-In Ceiling Tiles	Not Analyzed	Inconclusive	None Detected

TABLE 1
SUMMARY OF ASBESTOS BULK SAMPLE RESULTS
ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE
1215 MAIN STREET
ROTTERDAM, NY 12150
LIRO PROJECT NUMBER 14-128-1256 / WO 15

HOMOG. AREA	SAMPLE ID NUMBER	MATERIAL LOCATION	DESCRIPTION OF HOMOGENEOUS MATERIAL	RESULTS		
				PLM	PLM-NOB	TEM-NOB
7	17	Community Room Ceiling - Center	White Painted 24" x 48" Acoustical Lay-In Ceiling Tiles	Not Analyzed	Inconclusive	None Detected
8	18	Garage Ceiling at South	Unpainted 24" x 48" Acoustical Lay-In Ceiling Tiles	Not Analyzed	Inconclusive	None Detected
8	19	Kitchen Ceiling Near East Wall	Unpainted 24" x 48" Acoustical Lay-In Ceiling Tiles	Not Analyzed	Inconclusive	None Detected
8	20	Lounge Ceiling Near West Wall	Unpainted 24" x 48" Acoustical Lay-In Ceiling Tiles	Not Analyzed	Inconclusive	None Detected
9	21	Men's Room Ceiling - North	Unpainted 24" x 48" Acoustical Lay-In Ceiling Tiles	Not Analyzed	Inconclusive	None Detected
9	22	Men's Room Ceiling - South	Unpainted 24" x 48" Acoustical Lay-In Ceiling Tiles	Not Analyzed	Inconclusive	None Detected
9	23	Men's Room Ceiling - Center	Unpainted 24" x 48" Acoustical Lay-In Ceiling Tiles	Not Analyzed	Inconclusive	None Detected
10	24	Community Room at South Wall	Brown 6" Vinyl Covebase Molding	Not Analyzed	Inconclusive	None Detected
10	25	Community Room at East Entry	Brown 6" Vinyl Covebase Molding	Not Analyzed	Inconclusive	None Detected
11	26	Community Room at South Wall	Tan Mastic from Brown 6" Vinyl Covebase Molding	Not Analyzed	Inconclusive	None Detected
11	27	Community Room at East Entry	Tan Mastic from Brown 6" Vinyl Covebase Molding	Not Analyzed	Inconclusive	None Detected
12	28	Men's Room - South Wall	Brown 4" Vinyl Covebase Molding	Not Analyzed	Inconclusive	None Detected
12	29	Women's Room - South Wall	Brown 4" Vinyl Covebase Molding	Not Analyzed	Inconclusive	None Detected

TABLE 1
SUMMARY OF ASBESTOS BULK SAMPLE RESULTS
ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE
1215 MAIN STREET
ROTTERDAM, NY 12150
LIRO PROJECT NUMBER 14-128-1256 / WO 15

HOMOG. AREA	SAMPLE ID NUMBER	MATERIAL LOCATION	DESCRIPTION OF HOMOGENEOUS MATERIAL	RESULTS		
				PLM	PLM-NOB	TEM-NOB
13	30	Men's Room - South Wall	Mastic from Brown 4" Vinyl Covebase Molding	Not Analyzed	Inconclusive	None Detected
13	31	Women's Room - South Wall	Mastic from Brown 4" Vinyl Covebase Molding	Not Analyzed	Inconclusive	None Detected
14	***32***	***Community Room at South Entry***	***Beige Speckled 12" x 12" Vinyl Floor Tile (Type 1)***	***Not Analyzed***	***Inconclusive***	***2.7% Chrysotile***
14	***33***	***Men's Room at South Entry***	***Beige Speckled 12" x 12" Vinyl Floor Tile (Type 1)***	***Not Analyzed***	***Inconclusive***	***Positive Stop***
15	***34***	***Community Room at South Entry***	***Mastic from Beige Speckled 12" x 12" Vinyl Floor Tile (Type 1)***	***Not Analyzed***	***Inconclusive***	***Not Analyzed***
15	***35***	***Men's Room at South Entry***	***Mastic from Beige Speckled 12" x 12" Vinyl Floor Tile (Type 1)***	***Not Analyzed***	***2.6% Chrysotile***	***Not Analyzed***
16	***36***	***Community Room at South Entry***	***Brown Speckled 12" x 12" Vinyl Floor Tile (Type 1)***	***Not Analyzed***	***22.3% Chrysotile***	***Not Analyzed***
16	***37***	***Utility Room - South***	***Brown Speckled 12" x 12" Vinyl Floor Tile (Type 1)***	***Not Analyzed***	***Positive Stop***	***Not Analyzed***
17	***38***	***Community Room at South Entry***	***Mastic from Brown Speckled 12" x 12" Vinyl Floor Tile (Type 1)***	***Not Analyzed***	***1.7% Chrysotile***	***Not Analyzed***
17	***39***	***Utility Room - South***	***Mastic from Brown Speckled 12" x 12" Vinyl Floor Tile (Type 1)***	***Not Analyzed***	***Positive Stop***	***Not Analyzed***
18	40	Command Room Floor	Beige Speckled 12" x 12" Vinyl Floor Tile (Type 2)	Not Analyzed	Inconclusive	None Detected

TABLE 1
SUMMARY OF ASBESTOS BULK SAMPLE RESULTS
ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE
1215 MAIN STREET
ROTTERDAM, NY 12150
LIRO PROJECT NUMBER 14-128-1256 / WO 15

HOMOG. AREA	SAMPLE ID NUMBER	MATERIAL LOCATION	DESCRIPTION OF HOMOGENEOUS MATERIAL	RESULTS		
				PLM	PLM-NOB	TEM-NOB
18	41	Women's Room Floor	Beige Speckled 12" x 12" Vinyl Floor Tile (Type 2)	Not Analyzed	Inconclusive	None Detected
19	42	Command Room Floor	Mastic from Beige Speckled 12" x 12" Vinyl Floor Tile (Type 2)	Not Analyzed	Inconclusive	None Detected
19	43	Women's Room Floor	Mastic from Beige Speckled 12" x 12" Vinyl Floor Tile (Type 2)	Not Analyzed	Inconclusive	None Detected
20	44	Lounge Room at Bar - East	Orange Speckled Rolled Vinyl Flooring	Not Analyzed	Inconclusive	None Detected
20	45	Lounge Room at Bar - West	Orange Speckled Rolled Vinyl Flooring	Not Analyzed	Inconclusive	None Detected
21	***46***	***Lounge Room at Bar - East***	***Tan Adhesive from Orange Speckled Rolled Vinyl Flooring***	***Not Analyzed***	***52.7% Chrysotile***	***Not Analyzed***
21	***47***	***Lounge Room at Bar - West***	***Tan Adhesive from Orange Speckled Rolled Vinyl Flooring***	***Not Analyzed***	***Positive Stop***	***Not Analyzed***
22	48	Lounge Room Floor Under Vinyl Flooring - East	Off-White Cementitious Floor Leveling Compound	None Detected	Not Analyzed	Not Analyzed
22	49	Lounge Room Floor Under Vinyl Flooring - Center	Off-White Cementitious Floor Leveling Compound	None Detected	Not Analyzed	Not Analyzed
22	50	Lounge Room Floor Under Vinyl Flooring - West	Off-White Cementitious Floor Leveling Compound	None Detected	Not Analyzed	Not Analyzed
23	51	Lounge Room Floor Under Carpeting - East	Tan Carpeting Adhesive	Not Analyzed	Inconclusive	<1% Chrysotile

TABLE 1
SUMMARY OF ASBESTOS BULK SAMPLE RESULTS
ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE
1215 MAIN STREET
ROTTERDAM, NY 12150
LIRO PROJECT NUMBER 14-128-1256 / WO 15

HOMOG. AREA	SAMPLE ID NUMBER	MATERIAL LOCATION	DESCRIPTION OF HOMOGENEOUS MATERIAL	RESULTS		
				PLM	PLM-NOB	TEM-NOB
23	52	Lounge Room Floor Under Carpeting - West	Tan Carpeting Adhesive	Not Analyzed	Inconclusive	<1% Chrysotile
24	53	Lounge Room at West Entry Door	Grey Thinset Mortar with Coating	None Detected	Not Analyzed	Not Analyzed
24	54	Lounge Room at HVAC Closet	Grey Thinset Mortar with Coating	None Detected	Not Analyzed	Not Analyzed
24	55	Lounge Room at HVAC Closet	Grey Thinset Mortar with Coating	None Detected	Not Analyzed	Not Analyzed
25	56	Garage at North Wall - West	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
25	57	Garage at North Wall - East	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
25	58	Garage at East Wall - North	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
25	59	Garage at East Wall - Center	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
25	60	Garage at East Wall - South	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
25	61	Garage at South Wall - West	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
25	62	Garage at South Wall - East	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
26	63	Community Room Wall - East	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
26	64	Community Room Wall - East	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
26	65	Community Room Wall - Southeast	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
26	66	Community Room Wall - Center	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
26	67	Community Room Wall - West	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
27	68	Lounge Room Wall - Southeast	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
27	69	Lounge Room Wall - West	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed

TABLE 1
SUMMARY OF ASBESTOS BULK SAMPLE RESULTS
ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE
1215 MAIN STREET
ROTTERDAM, NY 12150
LIRO PROJECT NUMBER 14-128-1256 / WO 15

HOMOG. AREA	SAMPLE ID NUMBER	MATERIAL LOCATION	DESCRIPTION OF HOMOGENEOUS MATERIAL	RESULTS		
				PLM	PLM-NOB	TEM-NOB
27	70	Lounge Room Wall - South Center	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
27	71	Lounge Room Wall - North	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
27	72	Lounge Room Wall - South	Grey Interior CMU Mortar	None Detected	Not Analyzed	Not Analyzed
28	73	Lounge Room Window Sill - Southeast	Brown Wood Putty/Caulking	Not Analyzed	Inconclusive	None Detected
28	74	Lounge Room Window Sill - Southwest	Brown Wood Putty/Caulking	Not Analyzed	Inconclusive	None Detected
29	75	Garage East Façade - North	Grey Exterior Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
29	76	Garage East Façade - Center	Grey Exterior Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
29	77	Garage East Façade - South	Grey Exterior Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
30	78	Community Room Façade - East	Grey Exterior Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
30	79	Community Room Façade - East	Grey Exterior Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
30	80	Community Room Façade - East	Grey Exterior Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
30	81	Community Room Façade - South	Grey Exterior Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
30	82	Community Room Façade - South	Grey Exterior Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
31	83	Lounge Room Façade - Southeast	Grey Exterior Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
31	84	Lounge Room Façade - Center	Grey Exterior Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
31	85	Lounge Room Façade - Southwest	Grey Exterior Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
32	86	Lounge Room Façade - West	White Painted Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed

TABLE 1
SUMMARY OF ASBESTOS BULK SAMPLE RESULTS
ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE
1215 MAIN STREET
ROTTERDAM, NY 12150
LIRO PROJECT NUMBER 14-128-1256 / WO 15

HOMOG. AREA	SAMPLE ID NUMBER	MATERIAL LOCATION	DESCRIPTION OF HOMOGENEOUS MATERIAL	RESULTS		
				PLM	PLM-NOB	TEM-NOB
32	87	Lounge Room Façade - West	White Painted Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
32	88	Lounge Room Façade - West	White Painted Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
32	89	Lounge Room Façade - North	White Painted Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
32	90	Lounge Room Façade - North	White Painted Facebrick Mortar	None Detected	Not Analyzed	Not Analyzed
33	91	Lounge Room Façade - South Window Sill	Brown Elastic Exterior Caulking	Not Analyzed	Inconclusive	None Detected
33	92	Lounge Room Façade - West Window Sill	Brown Elastic Exterior Caulking	Not Analyzed	Inconclusive	None Detected
33	93	Community Room - South Window Sill	Grey Hardened Exterior Window Caulking	Not Analyzed	Inconclusive	None Detected
33	94	Community Room - East Window Sill	Grey Hardened Exterior Window Caulking	Not Analyzed	Inconclusive	None Detected
34	95	South Façade West of Entry	Grey Striated Expansion Joint	None Detected	Not Analyzed	Not Analyzed
34	96	South Façade West of Entry	Grey Striated Expansion Joint	None Detected	Not Analyzed	Not Analyzed
35	***97***	***Garage Roof - North***	***Off-White Paving Caulk/Expansion Joint Filler***	***Not Analyzed***	***6.3% Chrysotile***	***Not Analyzed***
35	***98***	***Garage Roof - South***	***Off-White Paving Caulk/Expansion Joint Filler***	***Not Analyzed***	***Positive Stop***	***Not Analyzed***
36	99	Roof Tower Pitch Pocket	White Elastic Covering/Sealant	Not Analyzed	Inconclusive	<1% Anthophyllite
36	100	Roof Tower Pitch Pocket	White Elastic Covering/Sealant	Not Analyzed	Inconclusive	None Detected

TABLE 1
SUMMARY OF ASBESTOS BULK SAMPLE RESULTS
ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE
1215 MAIN STREET
ROTTERDAM, NY 12150
LIRO PROJECT NUMBER 14-128-1256 / WO 15

HOMOG. AREA	SAMPLE ID NUMBER	MATERIAL LOCATION	DESCRIPTION OF HOMOGENEOUS MATERIAL	RESULTS		
				PLM	PLM-NOB	TEM-NOB
37	***101***	***Garage Roof Vent Stack - Southwest***	***Stray Tar on Flashing***	***Not Analyzed***	***31.1% Chrysotile***	***Not Analyzed***
37	***102***	***Garage Roof Vent Stack - Southwest***	***Stray Tar on Flashing***	***Not Analyzed***	***Positive Stop***	***Not Analyzed***
38	103	Garage/Community Room Parapet Wall at Roof (South Wall)	Grey Exterior Masonry Caulk	Not Analyzed	Inconclusive	None Detected
38	104	Garage/Community Room Parapet Wall at Roof (South Wall)	Grey Exterior Masonry Caulk	Not Analyzed	Inconclusive	None Detected

Legend:

- Not Analyzed: Analysis method is not required by NYSDOH ELAP for the material.
- Inconclusive: Analytical Results are 1% asbestos or less for PLM-NOB analysis of NOB material.
- Positive Stop: Previous analytical result of a sample within the homogeneous group is greater than 1% asbestos. Sample analysis of additional samples collected from the homogeneous material are not analyzed.
- Results presented in bold and italic text are considered asbestos-containing materials in accordance with New York State and Federal regulations.

TABLE 2:

SUMMARY OF LEAD PAINT TESTING DATA

TABLE 2
SUMMARY OF LEAD PAINT TESTING DATA
ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE
1215 MAIN STREET
ROTTERDAM, NY 12150
LIRO PROJECT NUMBER 14-128-1256 / WO 15

SAMPLE ID NUMBER	LOCATION	COMPONENT	SUBSTRATE	WALL	REP NUMBER	RESULTS (PERCENT BY WEIGHT)
L-01	Bathroom	Wall	Sheetrock	1	4	<0.01
L-02	Community Room	Door Frame	Metal	1	3	<0.01
L-03	***Exterior***	***Wall***	***Concrete Block***	***1***	***3***	***0.97***

Legend:

- A paint is considered to be lead-based when it contains equal to or greater than 0.5-percent lead as per HUD.
- Results presented in bold and italic text are considered are considered to be Lead-Based Paint as per HUD.

TABLE 3:

SUMMARY OF PCB TESTING DATA

TABLE 3
SUMMARY OF PCB SAMPLE RESULTS
ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE
1215 MAIN STREET
ROTTERDAM, NY 12150
LIRO PROJECT NUMBER 14-128-1256 / WO 15

SAMPLE ID NUMBER	MATERIAL DESCRIPTION	MATERIAL LOCATION	RESULTS (ppm)
A	Interior Brown Window Sill Putty/Caulk	Lounge Window Sill	None Detected
B	Exterior Grey Window Sill Caulk	Community Room Window Sill	None Detected
C	Exterior Grey Masonry Caulk	Garage Roof at South Wall	1.3 (Aroclor 1254)
D	White Sealant/Caulk	Roof Tower Pitch Pocket	None Detected

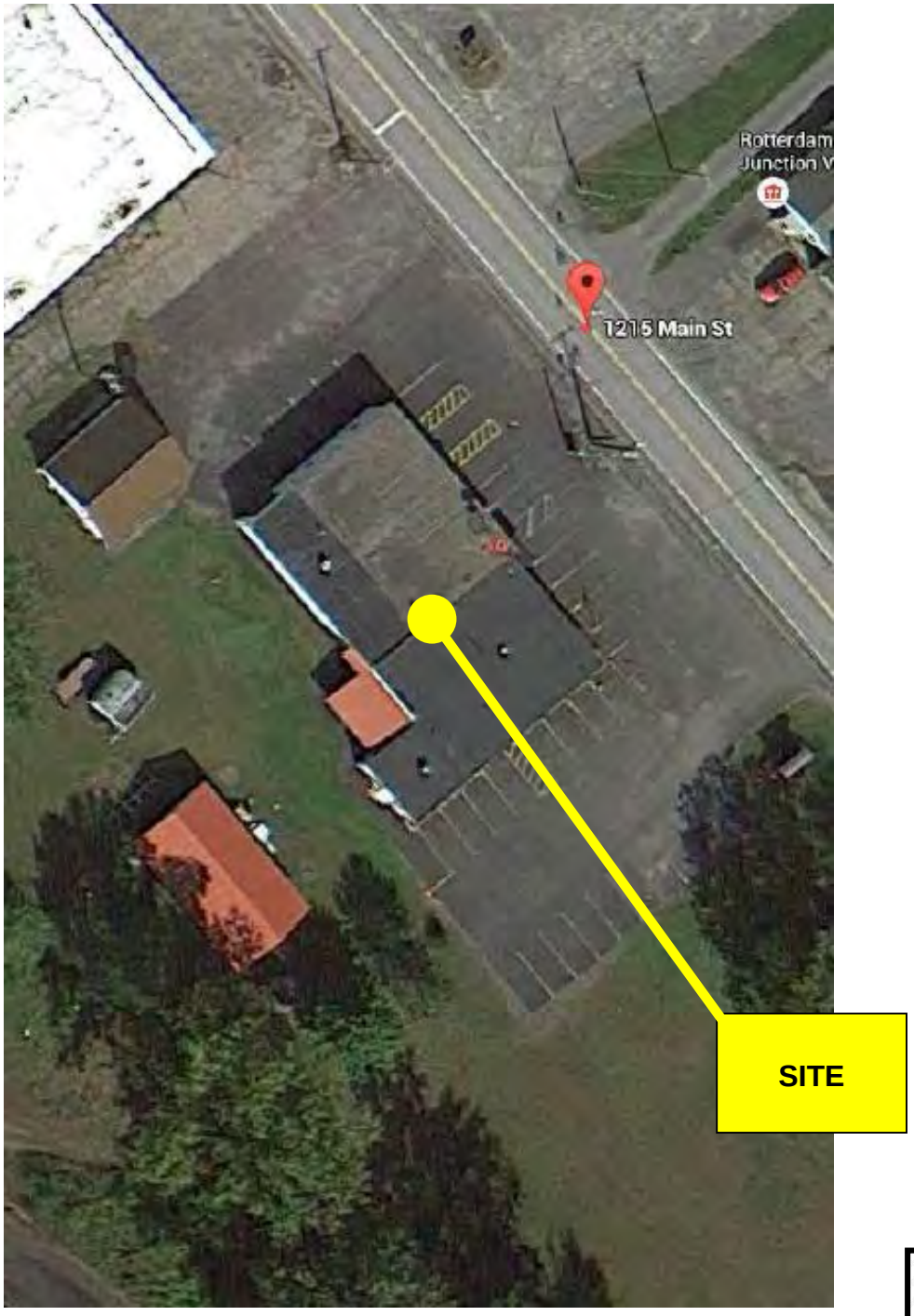
Legend:

- The disposal of building materials containing equal to or greater than 50 parts per million (ppm) or milligrams per kilogram (mg/kg) is regulated as hazardous waste in accordance with EPA regulations.

FIGURE 1:

SITE PLAN

LiRo Engineers, Inc. A LiRo Group Company	**FIGURE 1: SITE PLAN**
	SITE: Rotterdam Junction Volunteer Firehouse, Rotterdam, NY
	CLIENT NAME: The Governor's Office of Storm Recovery
	LIRO JOB#: 14-128-1256 / WO 15 — **DATE:** November 6, 2015
	PREPARED BY: John Eget — **CHECKED BY:** Peter Gerbasi, P.E.



NOT TO SCALE

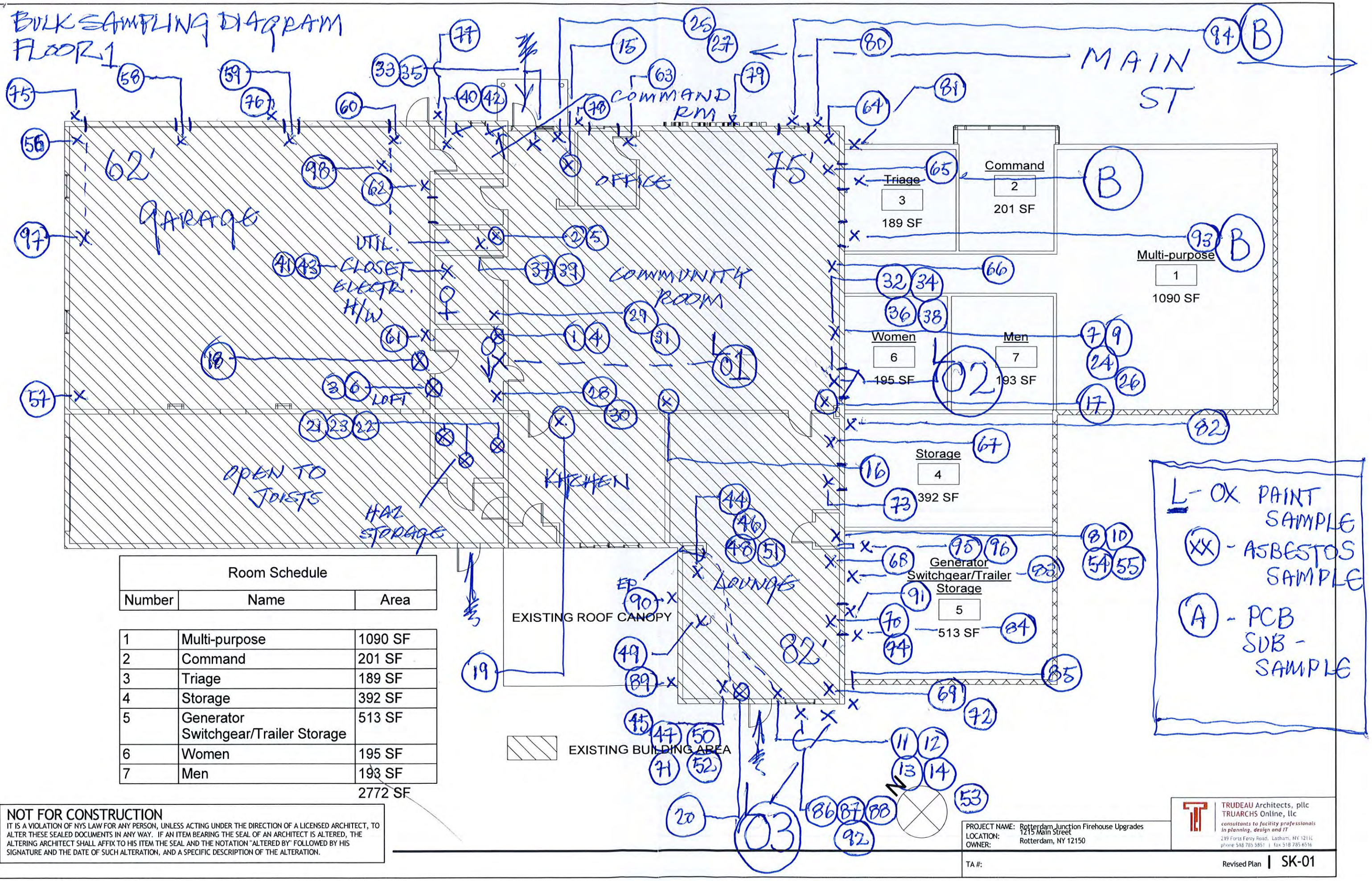
N

FIGURE 2:

SAMPLE LOCATION PLAN

14-128-1256 w015

BULK SAMPLING DIAGRAM
FLOOR 1



Room Schedule

Number	Name	Area
1	Multi-purpose	1090 SF
2	Command	201 SF
3	Triage	189 SF
4	Storage	392 SF
5	Generator Switchgear/Trailer Storage	513 SF
6	Women	195 SF
7	Men	193 SF
		2772 SF

9/1/2015 4:04:25 PM

NOT FOR CONSTRUCTION

IT IS A VIOLATION OF NYS LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER THESE SEALED DOCUMENTS IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT IS ALTERED, THE ALTERING ARCHITECT SHALL AFFIX TO HIS ITEM THE SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

PROJECT NAME: Rotterdam Junction Firehouse Upgrades
LOCATION: 1215 Main Street
OWNER: Rotterdam, NY 12150

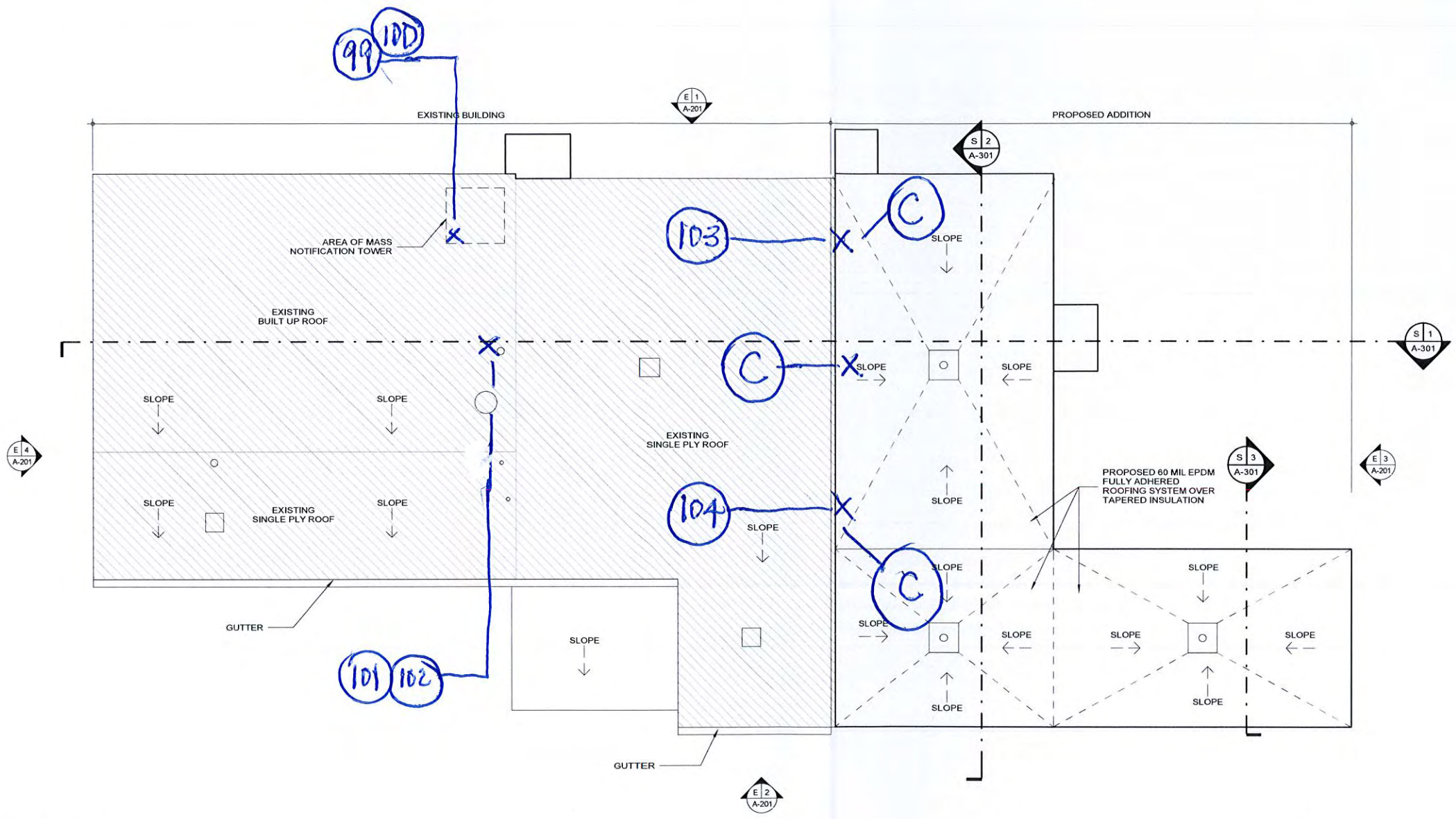
TA #:

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

Revised Plan | SK-01

14-128-1256-W015

BULK SAMPLING DIAGRAM
ROOF PLAN



D 1 Roof Plan
1/8" = 1'-0"

NEW YORK STATE OF OPPORTUNITY | DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.
IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL APPIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE, AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
216 Ford Ferry Road, Latham, NY 12110
phone 518 785 5811 | fax 518 785 6516

HA2F CONSULTANTS IN ENGINEERING
1 VAN PATTEN DRIVE
CLIFTON PARK, NY 12065
(518) 877-8566

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client
New York Rising Community Reconstruction Program
NY RISING COMMUNITIES
GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:
Roof Plan

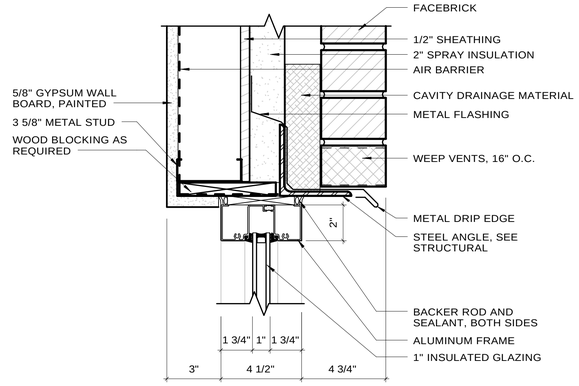
SCHEMATIC

Drawn By:	Checked By:	Date:
JB	DL	8/5/15

ASNY Project No.
328250
Drawing Number
A-104
Drawing
of

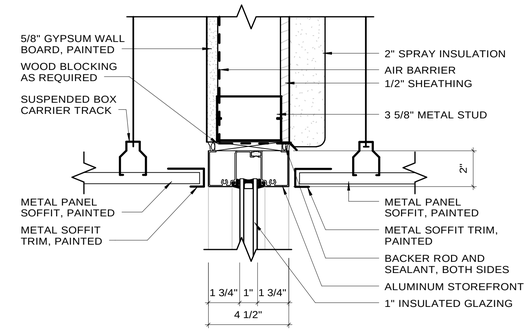
REGISTERED ARCHITECT BART TRUDEAU 026798 STATE OF NEW YORK

8/5/2015 1:54:54 PM



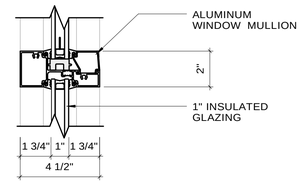
D 5 STOREFRONT WDW HEAD DETAIL

3" = 1'-0"



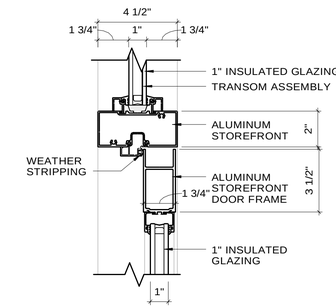
D 1 STOREFRONT HEAD DETAIL

3" = 1'-0"



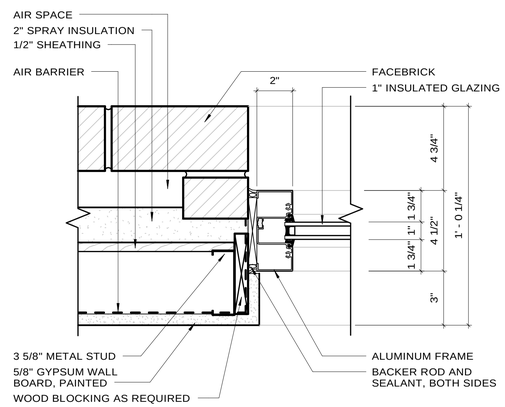
D 6 STOREFRONT WDW MULLION

3" = 1'-0"



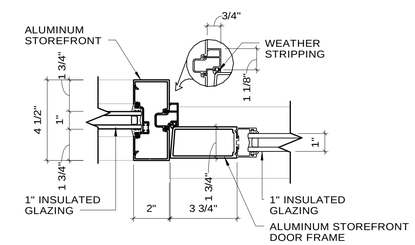
D 2 STOREFRONT DOOR HEAD DETAIL

3" = 1'-0"



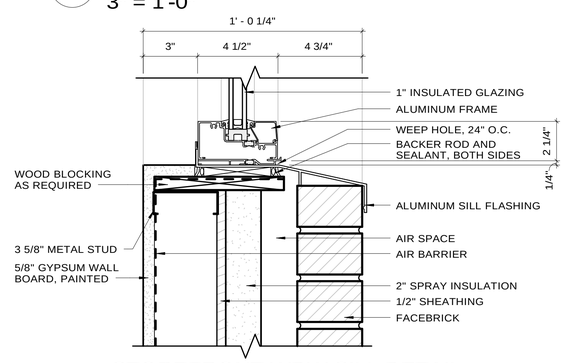
D 7 STOREFRONT WDW JAMB DETAIL

3" = 1'-0"



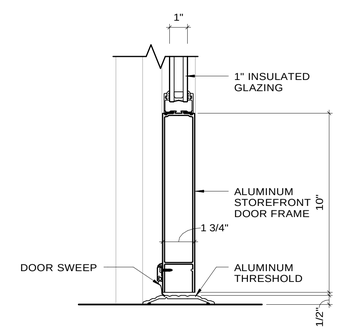
D 3 STOREFRONT DOOR JAMB DETAIL

3" = 1'-0"



D 8 STOREFRONT WDW SILL DETAIL

3" = 1'-0"



D 4 STOREFRONT DOOR SILL DETAIL

3" = 1'-0"

NEW YORK STATE OF OPPORTUNITY. DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEERS SIGNATURE. COPYRIGHT © 2013.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

HEAD, JAMB AND SILL DETAILS

60% SUBMISSION

Drawn By:	Checked By:	Date:
NW		21 JAN2016

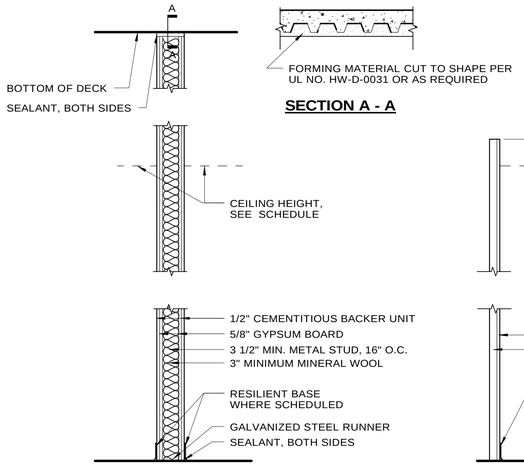
Seal & Signature

NOT FOR CONSTRUCTION

DASNY Project No. 328250

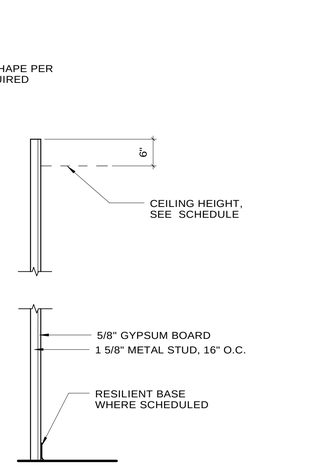
Drawing Number A504

2/4/2016 7:46:09 PM



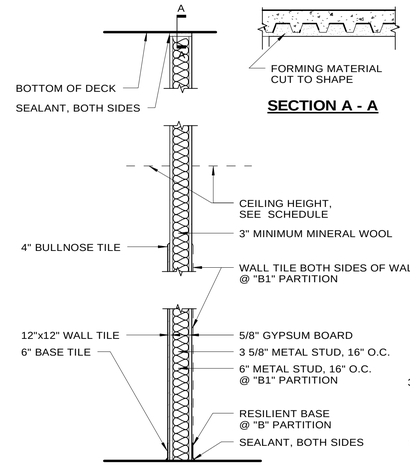
A PARTITION TYPE "A" - 2HR (U 404)

NTS



A1 PARTITION TYPE "A1" - NR

NTS

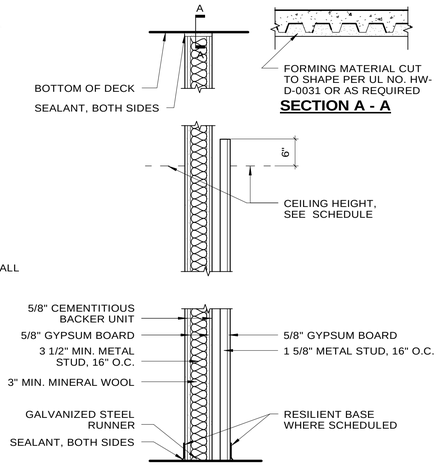


B PARTITION TYPE "B" - NR

NTS

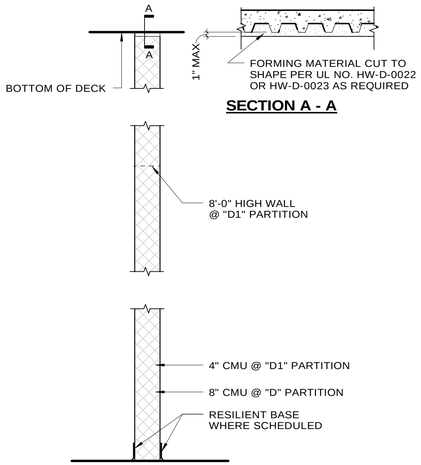
B1 PARTITION TYPE "B1" - NR

NTS



C PARTITION TYPE "C" - 2HR (U 404) + CHASE WALL

NTS

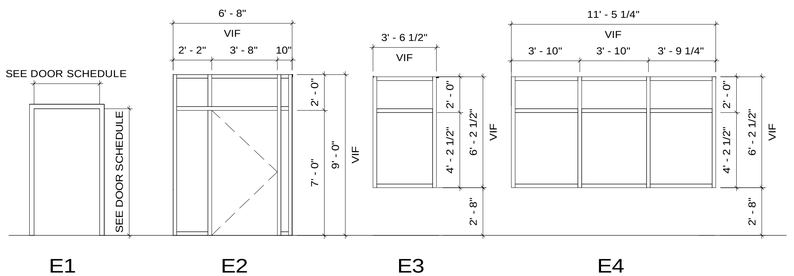


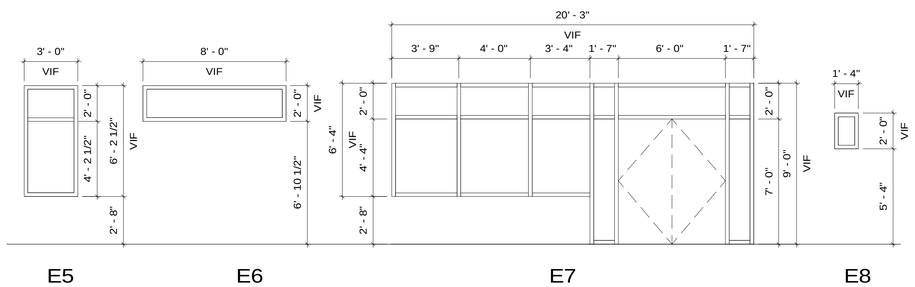
D PARTITION TYPE "D" - 2HR (U 906)

NTS

D1 PARTITION TYPE "D1" - NR

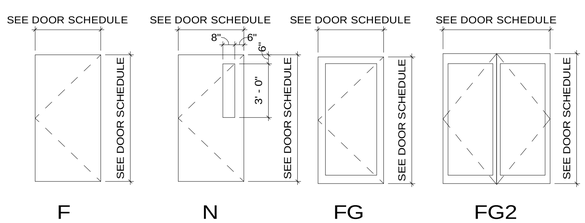
NTS





D FRAME TYPE ELEVATIONS

1/4" = 1'-0"



D DOOR TYPE ELEVATIONS

1/4" = 1'-0"

ROOM FINISH SCHEDULE

MARK	NAME	AREA	PERIMETER	FLOORS BASE	FLOORS FINISH	WALLS NORTH MATL	WALLS NORTH FINISH	WALLS SOUTH MATL	WALLS SOUTH FINISH	WALLS EAST MATL	WALLS EAST FINISH	WALLS WEST MATL	WALLS WEST FINISH	CEILING FINISH	CEILING MATERIAL
101	Multi-purpose	1173.0 SF	176.7	RES	VCT	GWB	PB	GWB	PB	GWB	PB	GWB	PB	SAT	T
102	Triage	183.5 SF	54.1	RES	VCT	GWB	PB	GWB	PB	GWB	PB	GWB	PB	SAT	T
103	Command	181.0 SF	53.7	RES	VCT	GWB	PB	GWB	PB	GWB	PB	GWB	PB	SAT	T
104	Storage	390.8 SF	85.8	RES	VCT	GWB	PB	GWB	PB	CMU	PB		PB	EXP	
105	Generator Switchgear/Trailer Storage	804.3 SF	118.4		CS	CMU	PB	CMU	PB	CMU	PB	CMU	PB	EXP	
106	Women	175.6 SF	82.4	PT	PT	GWB	PT/PB	GWB	PT/PB	GWB	PT/PB		PT/PB	SAT/GWB	T
107	Men	173.4 SF	82.0	PT	PT	GWB	PT/PB	GWB	PT/PB	GWB	PT/PB	PT/PB	PT/PB	SAT/GWB	T
		3081.5 SF													

WINDOW + STOREFRONT SCHEDULE

MARK	FRAME TYPE	FRAME WIDTH	FRAME HEIGHT	FRAME MATL	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	SILL HEIGHT	SHGC	REMARKS
101	E7	20' - 3"	9' - 0"	AL	1/A504			0"		STOREFRONT
101A	E2	6' - 8"	9' - 0"	AL	1/A504			0"		STOREFRONT
102	E6	8' - 0"	2' - 0"	AL	5/A504	7/A504	8/A504	6' - 11 3/4"		
102A	E5	3' - 0"	6' - 2 1/2"	AL	5/A504	7/A504	8/A504	2' - 8"		
103	E5	3' - 0"	6' - 2 1/2"	AL	5/A504	7/A504	8/A504	2' - 8"		
103A	E4	11' - 5"	6' - 2 1/2"	AL	5/A504	7/A504	8/A504	2' - 8"		
103B	E3	3' - 6"	6' - 2 1/2"	AL	5/A504	7/A504	8/A504	2' - 8"		
106	E8	1' - 4"	2' - 0"	AL				5' - 4"		
107	E8	1' - 4"	2' - 0"	AL				5' - 4"		

MATERIAL FINISH ABBREVIATIONS

REFER TO SPECS FOR ALL FINISHES LISTED IN SCHEDULE

ABBREVIATIONS	MATERIAL/FINISH
BRK	FACEBRICK
CMU	CONCRETE MASONRY UNIT
CS	CONCRETE SEALER
EXP	EXPOSED TO STRUCTURE
GWB	GYPSUM WALL BOARD
MTL	METAL SOFFIT PANELS
PLS	PLASTER
PB	PAINT TYPE
PT	PORCELAIN TILE
RES	RESILIENT BASE
SAT	SUSPENDED ACOUSTICAL TILE
T	SUSPENDED TILE SYSTEM
VCT	VINYL COMPOSITION TILE

FRAME ABBREVIATION KEY

ABBREVIATIONS	MATERIAL/FINISH
AL	ALUMINUM
GA	GALVANIZED
HM	HOLLOW METAL
OHCD	OVERHEAD COILING DOOR

DOOR + FRAME SCHEDULE

MARK	ROUGH OPENING WIDTH	ROUGH OPENING HEIGHT	DOOR THICKNESS	DOOR MATERIAL	DOOR TYPE	DOOR FRAME MATERIAL	DOOR FRAME TYPE	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	FIRE RATING (MIN.)	HARDWARE	COMMENTS
101	6' - 0"	7' - 0"	1 3/4"	AL	FG	AL	E7	2/A504	3/A504	4/A504			STOREFRONT DOOR
101A	3' - 8"	7' - 0"	1 3/4"	AL	FG	AL	E2	2/A504	3/A504	4/A504			STOREFRONT DOOR
101B	3' - 4"	7' - 2"	1 3/4"	HM	N	HM	E1	2/A504	3/A504	4/A504	90		CLOSER, GASKET
102	3' - 0"	7' - 0"	1 3/4"	HM	N	HM	E1	7/A503	8/A503	9/A503	90		CLOSER, GASKET
103	3' - 0"	7' - 0"	1 3/4"	HM	N	HM	E1	7/A503	8/A503	9/A503	90		CLOSER, GASKET
104	3' - 0"	7' - 0"	1 3/4"	HM	N	HM	E1	7/A503	8/A503	9/A503	90		CLOSER, GASKET
104A	3' - 8"	7' - 2"	1 3/4"	HM	F	HM	E1						
105	3' - 8"	7' - 2"	1 3/4"	HM	N	HM	E1	1/A503	2/A503	3/A503	90		CLOSER, GASKET
105A	3' - 8"	7' - 2"	1 3/4"	HM	F	HM	E1	4/A503	5/A503	6/A503			
105B	12' - 0"	12' - 0"	1 1/2"	GA		OHCD							OVERHEAD COILING DOOR, INSULATED SLATS
106	3' - 0"	7' - 0"	1 3/4"	HM	F	HM	E1	10/A503	11/A503	12/A503			
107	3' - 0"	7' - 0"	1 3/4"	HM	F	HM	E1	10/A503	11/A503	12/A503			

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEER'S SIGNATURE. COPYRIGHT © 2015.

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Ferris Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title:

Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

DrawingTitle:

SCHEDULES + PARTITION TYPES

60% SUBMISSION

Drawn By:	Checked By:	Date:
NW	JB	21 JAN2016

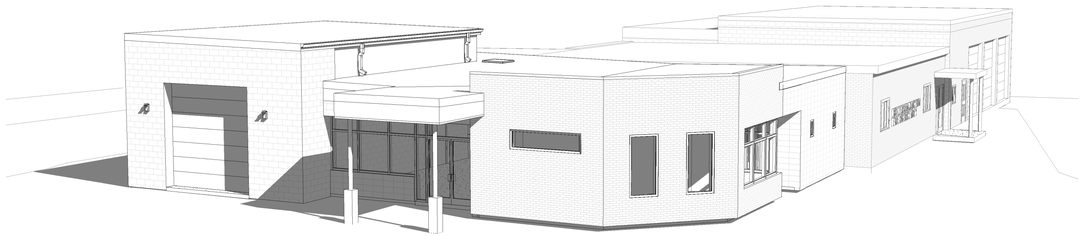
Seal & Signature

NOT FOR CONSTRUCTION

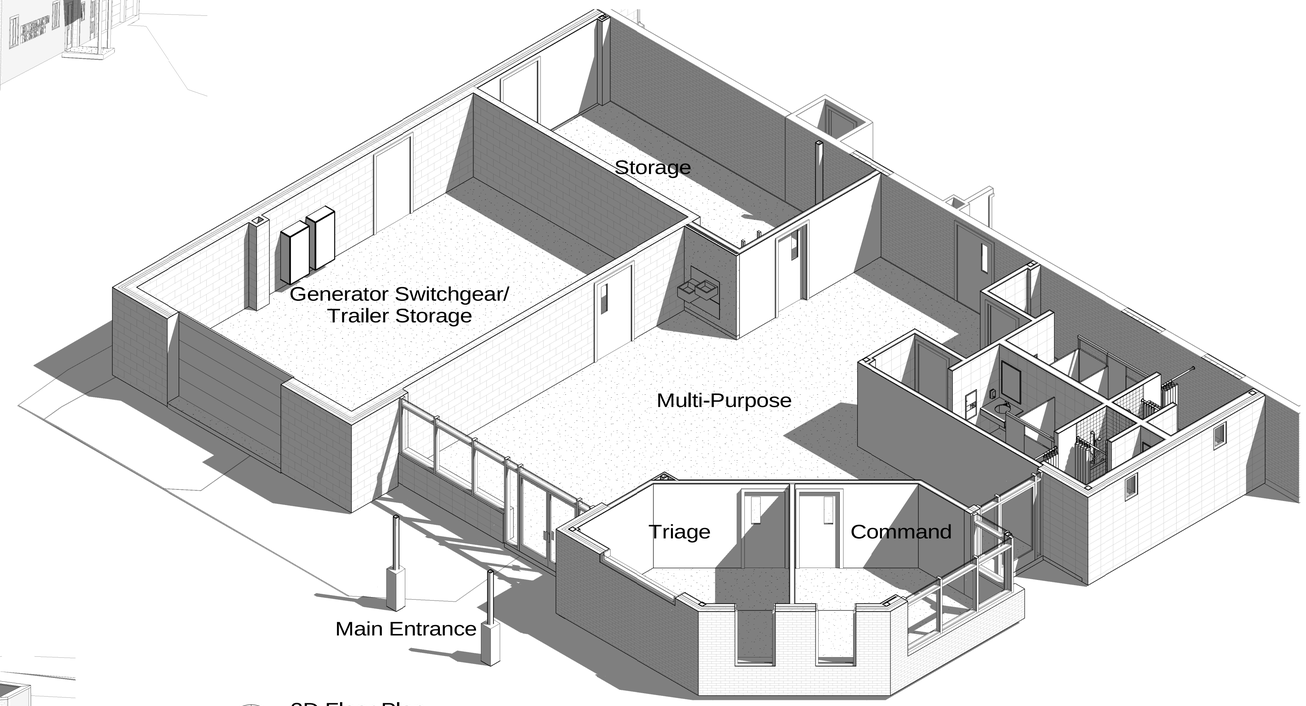
DASNY Project No. 328250

Drawing Number A601

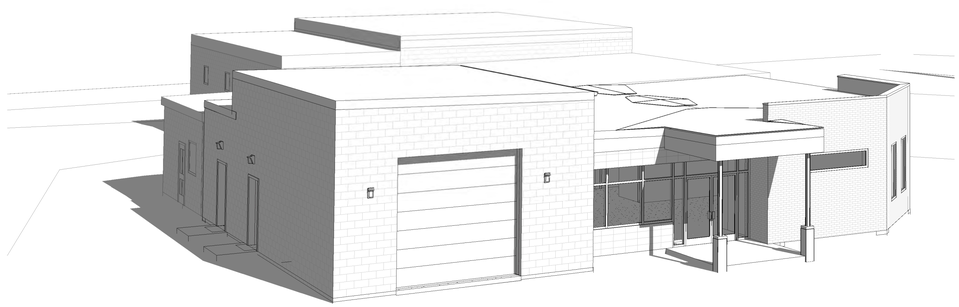
2/4/2016 7:46:11 PM



D 2 3D Front View 1



D 1 3D Floor Plan



D 3 3D Front View 2

D 4 3D View 3

NEW YORK STATE OF OPPORTUNITY. DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED IN A SECURE MANNER.

IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECTS/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

HA2F CONSULTANTS IN ENGINEERING
ONE VAN PATTEN DRIVE
CLIFTON PARK, NEW YORK 12065
TEL: (518) 877-8566
FAX: (518) 877-8599

BAER & ASSOCIATES LLC
Construction Consultants

DENTE ENGINEERING

Project Key

REVISIONS

Rev No.	Description	Date:
1		
2		
3		
4		
5		

Client

New York Rising Community Reconstruction Program

NY RISING COMMUNITIES

GOSR
Governor's Office of Storm Recovery

Project Title:
Rotterdam Junction Firehouse Upgrades
1215 Main Street
Rotterdam, NY 12150

Drawing Title:
3D VIEWS

60% SUBMISSION

Drawn By:	Checked By:	Date:
NW	BT	21 JAN2016

Seal & Signature
NOT FOR CONSTRUCTION

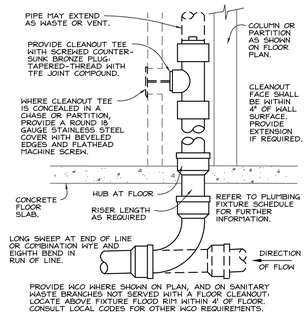
DASNY Project No.
328250

Drawing Number
A901

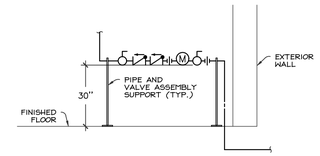
2/4/2016 7:46:20 PM

SYMBOL LEGEND

EXISTING TO REMAIN	ELBOW UP
EXISTING TO BE REMOVED	ELBOW DOWN
NEW WORK	ELBOW PLAN
DOMESTIC COLD WATER	TEE UP
DOMESTIC HOT WATER	TEE DOWN
DOMESTIC HOT WATER RETURN	TEE PLAN
PIPELINE - TYPE AS NOTED	PIPELINE CAP
G — GAS (NATURAL OR PROPANE AS NOTED)	PIPELINE STRAINER
SANITARY VENT	PDI-# "SHOCKTROL"
S — SANITARY DRAIN, THIS LEVEL	OR LAWN HYDRANT
S — SANITARY DRAIN, LEVEL BELOW	BALL VALVE
ST — STORM WATER, THIS LEVEL	OR GATE VALVE
ST — STORM WATER, LEVEL BELOW	GLOBE VALVE
C FLOOR DRAIN	DRAIN VALVE
GRADE CLEANOUT	CHECK VALVE
IN-LINE CLEANOUT	SOLENOID VALVE
SANITARY WYE	GAS COCK OR BALANCE VALVE
ROOF DRAIN	T TEMPERATURE GAUGE
VENT THRU ROOF	P PRESSURE GAUGE



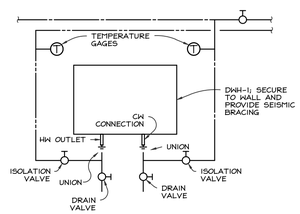
1 DETAIL - DANDY TEE CLEANOUT
N.T.S.



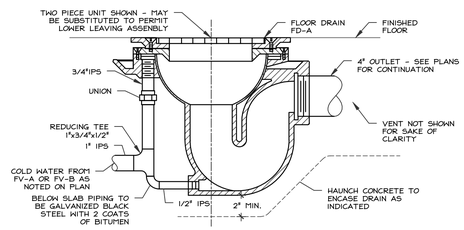
2 DETAIL - WATER SERVICE ENTRY
N.T.S.

GENERAL NOTES

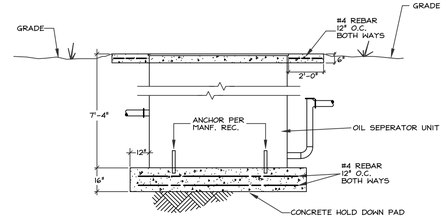
1. WARNING: IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER IN ANY WAY, ANY PLANS, SPECIFICATIONS, PLATS, OR REPORTS TO WHICH THE SEAL OF A PROFESSIONAL ENGINEER OR LAND SURVEYOR HAS BEEN AFFIXED.



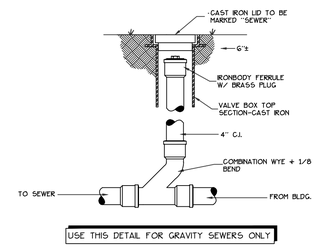
3 DETAIL - HOT WATER HEATER
N.T.S.



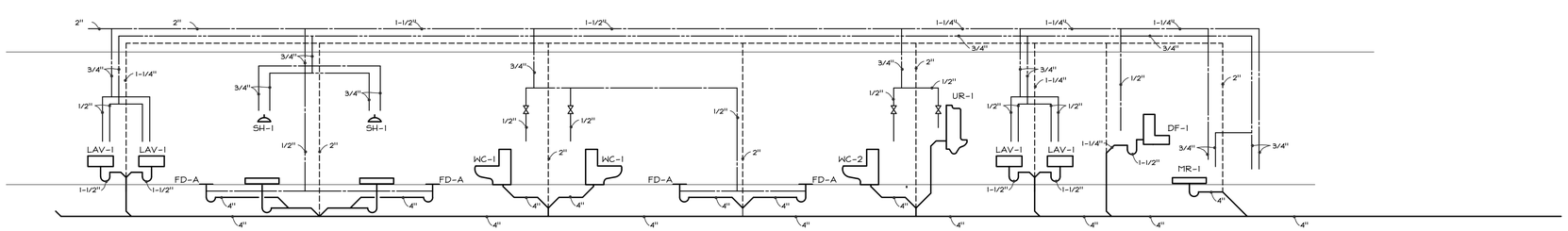
4 DETAIL - FLOOR DRAIN DETAIL
N.T.S.



5 DETAIL - OIL SEPERATOR
N.T.S.



6 DETAIL - GRADE CLEANOUT
N.T.S.



7 DETAIL - RISER DIAGRAM
N.T.S.

NEW YORK STATE OF OPPORTUNITY | DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
535 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE RETURNED TO DASNY. IT IS A VIOLATION OF STATE EDUCATION LAW TO ALTER THE DESIGN OF A LICENSED ARCHITECT OR ENGINEER, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants:

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

HA2F CONSULTANTS IN ENGINEERING
1 VAN PATTEN DRIVE
CLIFTON PARK, NY 12065
(518) 877-8566

Project Key

REVISIONS

Rev No	Description	Date:
1		
2		
3		
4		
5		

Client
New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title
Rotterdam Junction Firehouse Upgrades
1215 Main St
Rotterdam Junction, NY 12150

Drawing Title
PLUMBING
GENERAL NOTES
SYMBOL LEGEND
SCHEDULES

Phase
60% SUBMISSION

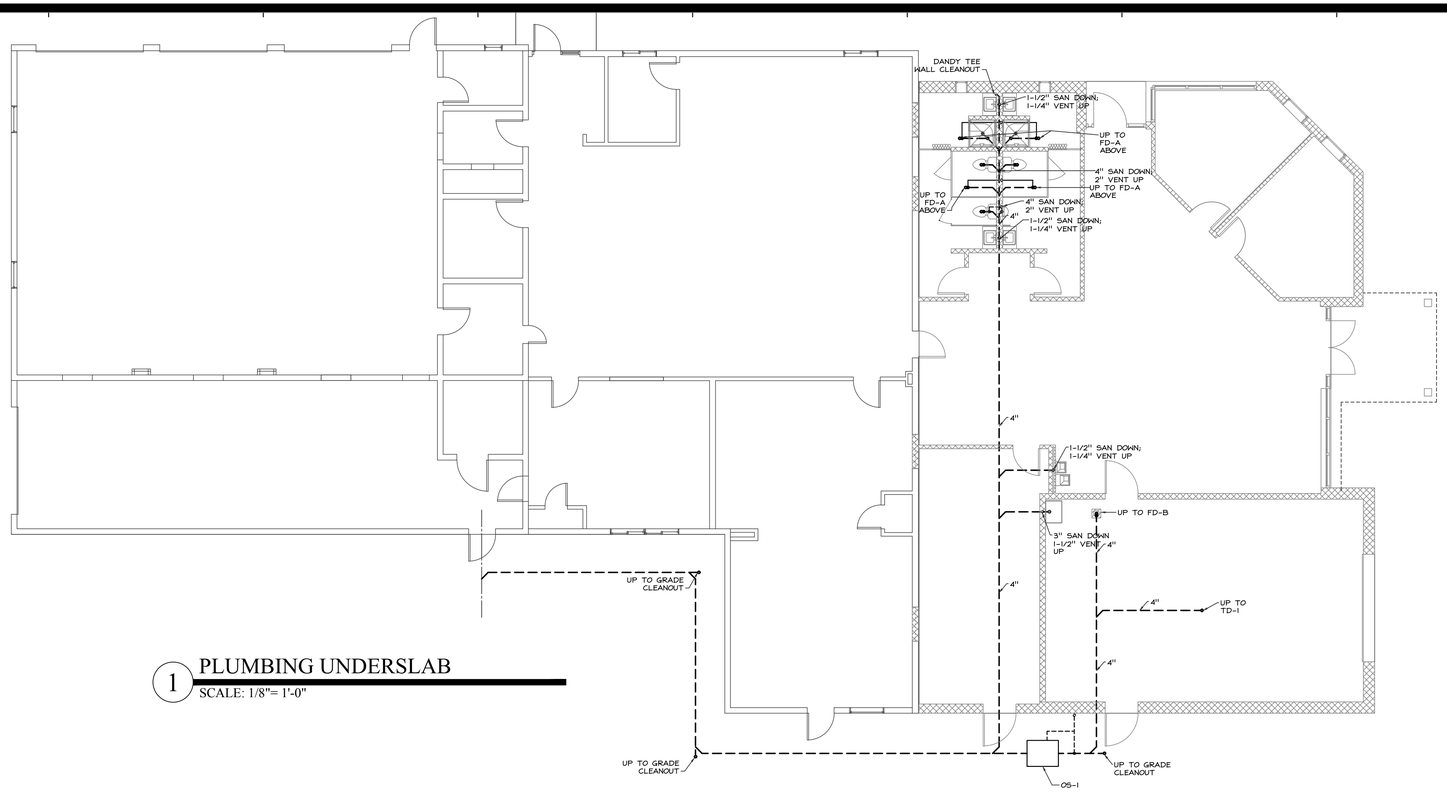
Drawn By:	Checked By:	Date:
SMP	SMP	01/21/2016

Seal & Signature

DASNY Project No: 328250

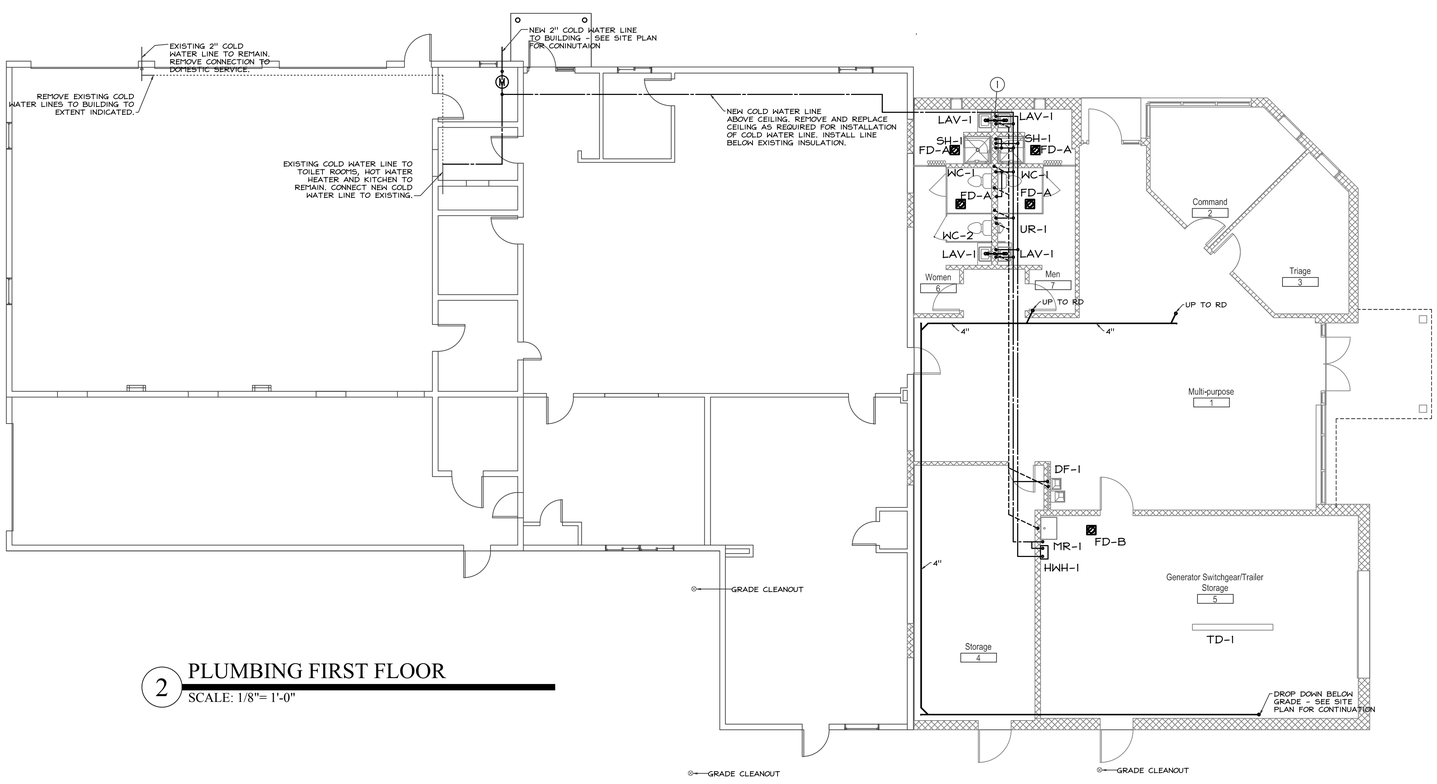
Drawing Number
P-001

Drawing of



1 PLUMBING UNDERSLAB

SCALE: 1/8"= 1'-0"



2 PLUMBING FIRST FLOOR

SCALE: 1/8"= 1'-0"

NEW YORK STATE OF OPPORTUNITY | DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0083
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE RETURNED TO DASNY. IT IS A VIOLATION OF STATE EDUCATION LAW TO ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants:

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

HA2F CONSULTANTS IN ENGINEERING
1 VAN PATTEN DRIVE
CLIFTON PARK, NY 12065
(518) 877-8566

Project Key

REVISIONS

Rev No	Description	Date:
1		
2		
3		
4		
5		

Client
New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title
Rotterdam Junction Firehouse Upgrades
1215 Main St
Rotterdam Junction, NY 12150

Drawing Title
PLUMBING MODIFICATIONS

Phase
60% SUBMISSION

Drawn By:	Checked By:	Date:
SMP	SMP	01/21/2016

Seal & Signature

DASNY Project No: 328250

Drawing Number
P-201

Drawing of

SYMBOL LEGEND

- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- NEW WORK
- SUPPLY REGISTER W/ FLOW DIRECTION
- RETURN/EXHAUST REGISTER
- AxB — DUCTWORK-SIDE SHOWN IS DIMENSION "A"
- DUCT UP - SUPPLY
- DUCT DOWN - RETURN
- VOLUME DAMPER
- FLEXIBLE DUCT
- T — THERMOSTAT
- TRS — THERMOSTAT ROOM SENSOR

FAN SCHEDULE

MARK	MAKE	MODEL	TYPE	DRIVE	CFM	EXT. SP	TIP SPEED	RPM	HP	ELECTRIC			SONES	REMARKS
										VOLTS	PHASE	HZ		
EF-1	PENNBARRY	DX11R	CLG EXH	DIRECT	370	0.375	4514	1550	6-Jan	120	1	60	6.9	

GAS FIRED UNIT HEATER

MARK	MAKE	MODEL	TYPE	CFM	FURNACE				MOTOR			EFFICIENCY	REMARKS
					FUEL	INPUT BTU/HR	OUTPUT BTU/HR	SUPPLY AIR (°F)	RPM	H.P.	V/PH/HZ		
RTU-1	MODINE	HDS60	SEPERATED COMBUSTION	990	NAT.GAS.	60,000	48,000		1625	1/12	120/1/60	80%	

OUTLET & INLET SCHEDULE

MARK	MAKE	MODEL	FACE	MOUNT	PATTERN	DAMPER	FINISH	NC value	REMARKS
SA	TITUS	TDC-A	SQUARE	LI	A4	YES	WE	<30	PAN TO 24X24 EUALIZING GRID
SB	TITUS	TDC-A	SQUARE	LI	A3	YES	WE	<30	PAN TO 24X24 EUALIZING GRID
SC	TITUS	TDC-A	SQUARE	LI	G2	YES	WE	<30	PAN TO 24X24 EUALIZING GRID
SD	TITUS	TDC-A	SQUARE	LI	S2	YES	WE	<30	PAN TO 24X24 EUALIZING GRID
SE	TITUS	TDC-A	SQUARE	LI	S1	YES	WE		PAN TO 24X24 EUALIZING GRID
RA	TITUS	50F	SQUARE	LI	N/A	YES	WE	<30	PAN TO 24X24
RB	TITUS	50F	SQUARE	LI	N/A	YES	WE	<30	TYPE 1 BOARDER

PACKAGE ROOFTOP HVAC UNIT SCHEDULE

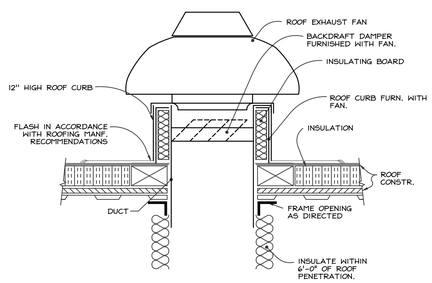
MARK	MAKE	MODEL	CFM		EXT. SP	FAN		COOLING MBH		ENTERING EVAP. AIR TEMP		CONDENSER ENT. AIR TEMP	FURNACE		FUEL	ELECTRICAL VOLTS/PH/HZ	EER	REMARKS
			TOTAL	MIN O.A.		H.P.	RPM	TOTAL	SENSIBLE	DRY BULB	WET BULB		INPUT (MBH)	OUTPUT (MBH)				
RTU-1	CARRIER	48HCFD08A2A5-0A0A0	3500	295	0.5	1.37	755	95.18	78.29	80	67	95	180/224	183.68	NAT.GAS.	208-3-60	13	

VAV SCHEDULE

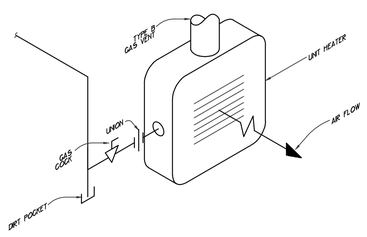
MARK	MAKE	MODEL	SIZE	MAX CFM	MIN CFM	REMARKS
VAV-2	TITUS	DESV	7	525	20	
VAV-3	TITUS	DESV	5	260	20	
VAV-4	TITUS	DESV	7	600	45	
VAV-5	TITUS	DESV	6	400	40	

GENERAL NOTES:

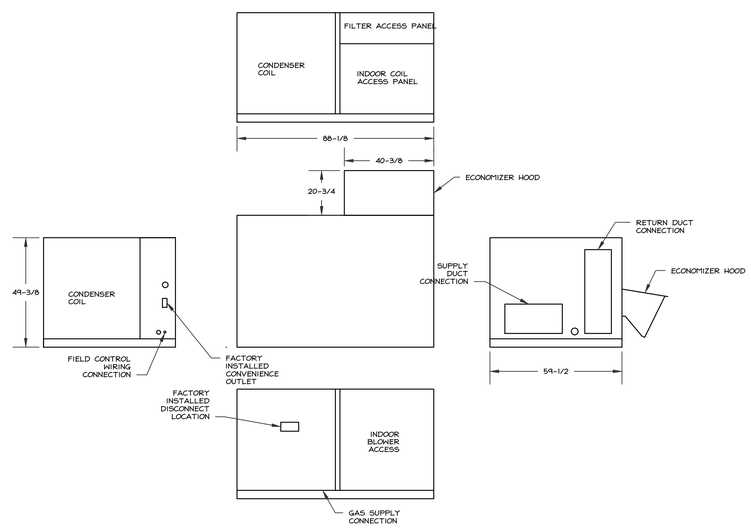
1. WARNING: IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER IN ANY WAY, ANY PLANS, SPECIFICATIONS, PLATS, OR REPORTS TO WHICH THE SEAL OF A PROFESSIONAL ENGINEER OR LAND SURVEYOR HAS BEEN AFFIXED.



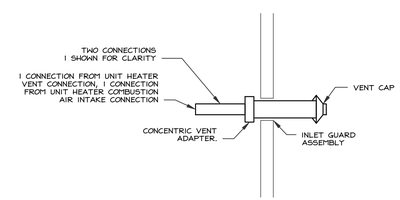
1 DETAIL - ROOF EXHAUST FAN
N.T.S.



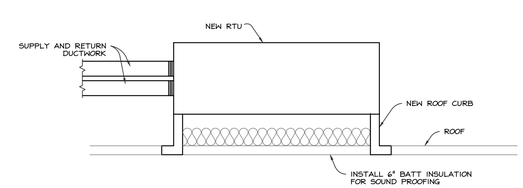
2 DETAIL - GAS FIRED UNIT HEATER
N.T.S.



3 DETAIL - RTU
N.T.S.



4 THROUGH WALL CONCENTRIC VENT
N.T.S.



5 THROUGH WALL CONCENTRIC VENT
N.T.S.

NEW YORK STATE OF OPPORTUNITY | DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE DESTROYED. IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants:

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

HA2F CONSULTANTS IN ENGINEERING
1 VAN PATTEN DRIVE
CLIFTON PARK, NY 12065
(518) 877-8566

Project Key

REVISIONS

Rev No	Description	Date:
1		
2		
3		
4		
5		

Client
New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title
Rotterdam Junction Firehouse Upgrades
1215 Main St
Rotterdam Junction, NY 12150

Drawing Title
MECHANICAL GENERAL NOTES SCHEDULES

Phase
60% SUBMISSION

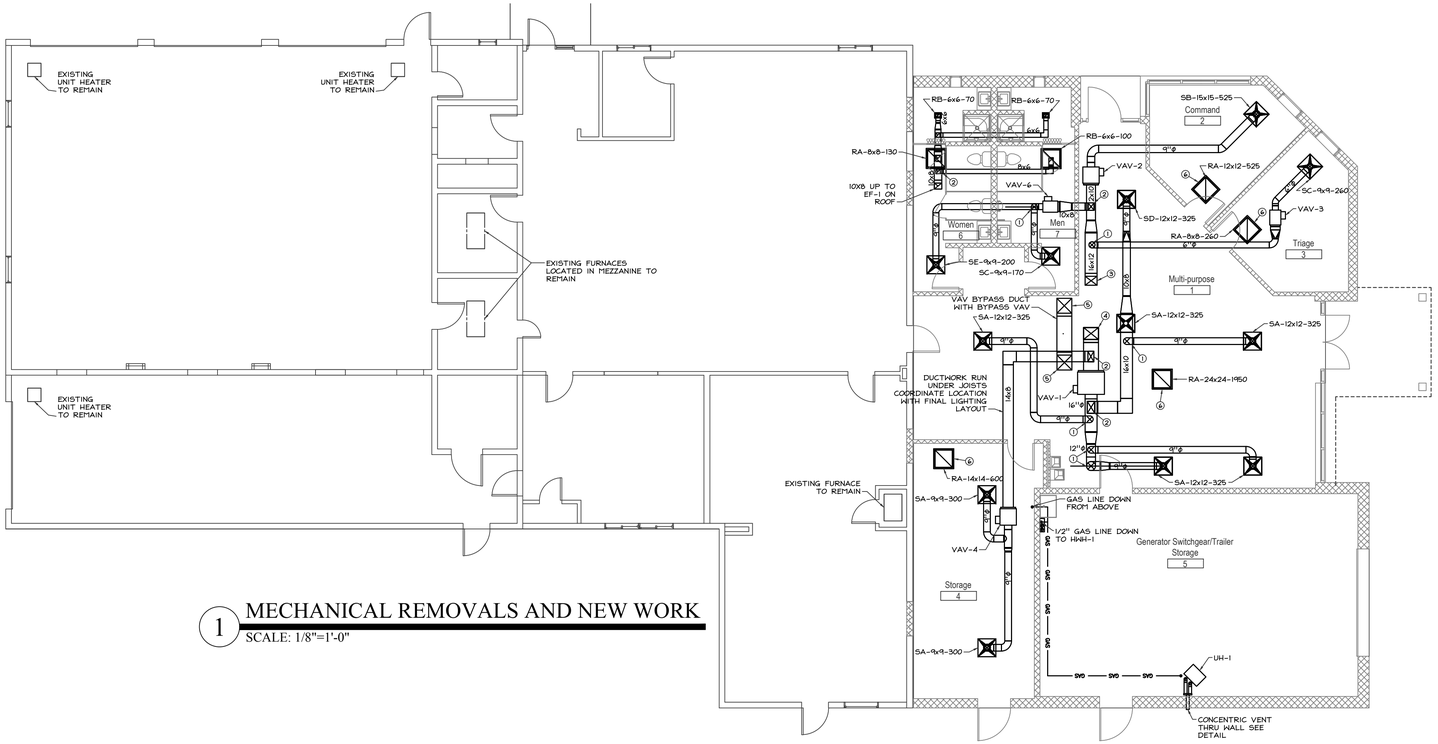
Drawn By:	Checked By:	Date:
SMP	SMP	01/21/2016

Seal & Signature

DASNY Project No: 328250

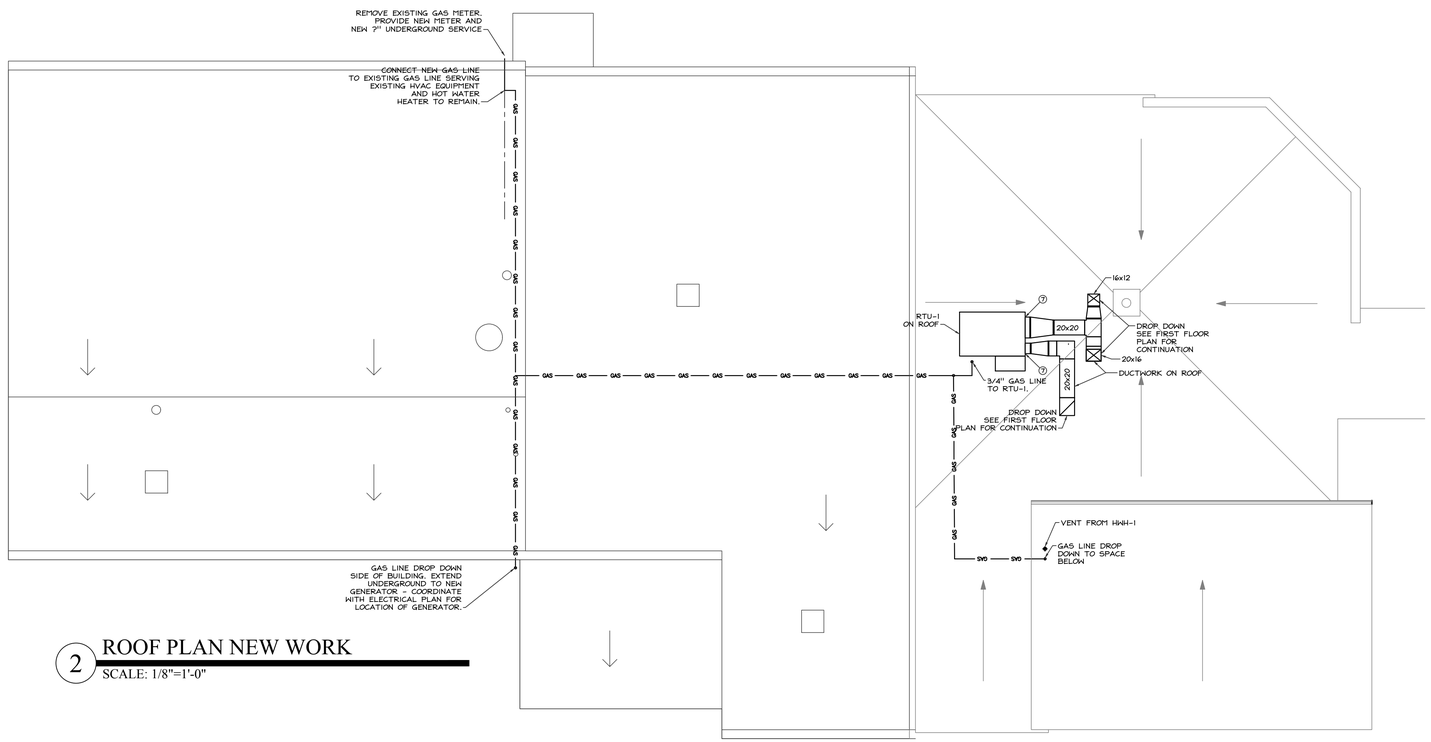
Drawing Number
M-001

Drawing ### of ###



1 MECHANICAL REMOVALS AND NEW WORK

SCALE: 1/8"=1'-0"



2 ROOF PLAN NEW WORK

SCALE: 1/8"=1'-0"

NEW YORK STATE OF OPPORTUNITY | DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0083
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE RETURNED TO DASNY. IT IS A VIOLATION OF STATE EDUCATION LAW TO ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants:

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

HA2F CONSULTANTS IN ENGINEERING
1 VAN PATTEN DRIVE
CLIFTON PARK, NY 12065
(518) 877-8566

Project Key

REVISIONS

Rev No	Description	Date:
1		
2		
3		
4		
5		

Client
New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title
Rotterdam Junction Firehouse Upgrades
1215 Main St
Rotterdam Junction, NY 12150

Drawing Title
MECHANICAL REMOVALS AND NEW WORK

Phase
60% SUBMISSION

Drawn By:	Checked By:	Date:
SMP	SMP	01/21/2016

Seal & Signature

DASNY Project No:
328250

Drawing Number
M-201

Drawing
of

ABBREVIATIONS

NOTE: NOT ALL ABBREV. MAY BE USED. VERIFY ALL DISCREPANCIES PRIOR TO CONSTRUCTION.

@	AT
ACT.	ACOUSTIC TILE
ADM.	ADMINISTRATION
A.F.F.	ABOVE FINISHED FLOOR
AL.	ALUMINUM
APPROX.	APPROXIMATE
BD.	BOARD
BL.	BLOCK
BLDG.	BUILDING
BOT.	BOTTOM
B. PL.	BEARING PLATE
BSMT.	BASEMENT
CH.	CHANNEL
C.I.	CAST IRON
CLG.	CEILING
CMU	CONCRETE MASONRY UNIT
C.O.	CLEANOUT
COL.	COLUMN
CONC.	CONCRETE
CONST.	CONSTRUCTION
CPT.	CARPET
C.T.	CERAMIC TILE
CTR.	CENTER
C.W.	COLD WATER
DET.	DETAIL
D.F.	DRINKING FOUNTAIN
DIA.	DIAMETER
DN.	DOWN
DPCO	DECK PLATE CLEANOUT
DR.	DOOR
DWG.	DRAWING
DWHTR	DOMESTIC WATER HEATER
(E)	EXISTING
EA.	EACH
EIFS	EXTERIOR INSULATION FINISH SYSTEM
E.C.	ELECTRICAL CONTRACTOR OR INSTALLER
EL.	ELEVATION
EQUIP.	EQUIPMENT
EX.	EXISTING
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EXR.	EXISTING TO REMAIN
FACP	FIRE ALARM CONTROL PANEL
FAI	FRESH AIR INTAKE
FDN.	FOUNDATION
F.F.	FINISHED FLOOR
FIN.	FINISH
FL.	FLOOR
FR.	FRAME
FTG.	FOOTING
F.V.	FIELD VERIFY
GA.	GAUGE
GAL.	GALLON
GALV.	GALVANIZED
GEN.	GENERAL
G.C.	CONSTRUCTION CONTRACTOR OR INSTALLER
GFB.	GROUND FACE BLOCK
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GWB	GYPSUM WALL BOARD
GYP.	GYPSUM
H	HOT WATER
H.C.	HVAC CONTRACTOR OR INSTALLER
HDWR.	HARDWARE
H.M.	HOLLOW METAL
HTD.	HEATED
H&V	HEATING & VENTILATING
HVAC	HEATING, VENTILATION & AIR CONDITIONING
H.W.	HOT WATER
H.W.R.	HOT WATER RETURN
INSUL.	INSULATION
JT.	JOINT
LLH.	LONG LEG HORIZONTAL
LLV.	LONG LEG VERTICAL
MAT'L	MATERIAL
MAX.	MAXIMUM
H.C.	HEATING INSTALLER
M.E.	MATCH EXISTING
MECH.	MECHANICAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTD.	MOUNTED
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OFF.	OFFICE
OPG.	OPENING
P.	PAINT
PAVT.	PAVE TILE
P.C.	PLUMBING CONTRACTOR OR INSTALLER
PL.	PLASTER
PR.	PAIR
P.T.	PRESSURE TREATED
R.D.	ROOF DRAIN
REINF.	REINFORCING
REQ.	REQUIRED
RES.	RESILENT
R.S.F.	RESILENT SHEET FLOORING
R.T.	RESILENT TILE
SAN	SANITARY
S.C.	SOLID CORE
SIM.	SIMILAR
S.S.	STAINLESS STEEL
ST.	STEEL
STD.	STANDARD
STO.	STORAGE
SUSP.	SUSPENDED
TEL.	TELEPHONE
T&G	TONGUE & GROOVE
TR.	TRENCH
TYP.	TYPICAL
V	VENT
VCT	VINYL COMPOSITION TILE
VSF	VINYL SHEET FLOORING
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W	WASTE
W/	WITH
WD	WOOD
WWF	WOVEN WIRE FABRIC
WR	WATER RESISTANT

SYMBOL LEGEND

- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- NEW WORK
- DOWNLIGHT
- FLUORESCENT TROFFER
- FLUORESCENT WALL MOUNTED
- WALL MOUNTED
- LINEAR LIGHTING UNIT; TYPE AND MOUNTING AS INDICATED.
- JUNCTION BOX
- $ SWITCH; MOUNT 48" AFF.
- $3 3-WAY SWITCH; MOUNT 48" AFF.
- $D DIMMING SWITCH - INCANDESCENT OR FLUORESCENT AS REQUIRED. MOUNT 48" AFF.
- M ELECTRIC METER
- UNSWITCHED CIRCUITRY
- SWITCHED CIRCUITRY
- A B HOME RUN. A=PANEL B=CIRCUIT No.
- # No. CONDUCTORS (EXCLUDING GROUND)
- DUPLEX RECEPTACLE; MOUNT 18" AFF.
- XX DUPLEX RECEPTACLE - MOUNTED xx INCHES ABOVE FINISHED FLOOR
- C DUPLEX RECEPTACLE - MOUNTED 4" ABOVE COUNTER BACK SPLASH
- GFI DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER.
- QUAD RECEPTACLE IN FLOOR BOX.
- QUAD RECEPTACLE
- PLUGMOLD; MOUNT AS DIRECTED
- TV TELEVISION OUTLET -- SEE DETAIL
- FRACTIONAL HP MOTOR
- 3-PHASE MOTOR
- EXIT LIGHT, CEILING MOUNTED, SINGLE FACE
- EXIT LIGHT, WALL MOUNTED, SINGLE FACE
- NON-FUSED DISCONNECT
- FUSED DISCONNECT
- EXISTING PANEL
- NEW PANEL
- DATA OUTLET. SEE DETAIL; MOUNT 18" AFF.
- HARD WIRED CONNECTION.
- FLOOR DATA OUTLET
- FACP FIRE ALARM CONTROL PANEL
- FIRE ALARM MANUAL STATION - MOUNT AT 48"
- FIRE ALARM STROBE - MOUNT 6" BELOW CEILING OR 7'-6" AFF WHICHEVER IS LOWER
- SMOKE DETECTOR
- DUCT SMOKE DETECTOR
- COMBINATION FIRE ALARM BELL & STROBE -- MOUNT 6" BELOW CEILING OR 7'-6" AFF WHICHEVER IS LOWER.
- PHOTOCELL
- PHOTOCELL

GENERAL NOTES

1. WARNING: IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER IN ANY WAY, ANY PLANS, SPECIFICATIONS, PLATS, OR REPORTS TO WHICH THE SEAL OF A PROFESSIONAL ENGINEER OR LAND SURVEYOR HAS BEEN AFFIXED.
2. RECEPTACLES LOCATED WITHIN 6'-0" OF WATER SOURCE SHALL BE GFCI TYPE RECEPTACLE.

LIGHTING FIXTURE SCHEDULE

MARK	MAKE	MODEL	VOLTS	WATTS	LAMP TYPE	LAMP NO/FIXT	REMARKS
L-A	LITHONIA	2RTL4-60L-EZBLP830	120	54.8	LED	1	2X4 LAYIN, 6,000 LUMEN, 3,000K COLOR TEMPERATURE, FULL DIMMING
L-B	LITHONIA	2RTL2-33L-EZBLP830	120	35.44	LED	1	TO MATCH L-A EXCEPT 2X2 AND 3300 LUMENS
L-C	KIRLIN	LRR-06405-120-43(42W)-30K-WFL	120	42	LED	1	RECESSED LED, 6" APPERATURE, 2,400 LUUMENS, 3,000K COLOR TEMPERATURE, FULL DIMMING, WIDE FLOOD
L-D	LEDALITE	7808LCEQN0471ET	120	26.2	LED	1	4' WALL MTD., 3,400 LUMENS, 3,0000K COLOR TEMPERATURE, FULL DIMMING, TITANIUM SILVER FINISH WITH BLACK END CAPS
L-E	LEDALITE	7808LCEQN0271ET	120	14	LED	1	TO MATCH L-D EXCEPT 2' LONG, 1,700 LUMENS
L-F	KIRLIN	LRR-05435-120-30K	120	57.1	LED	1	DEAD FRONT SHOWER RECESSED 5" APPERATURE, 3,300 LUMENS, 3,000K COLOR TEMPERATURE
L-G	LITHONIA	VAP6000LMPSTMD120GX1030K80CRI	120	64	LED	1	VAPOR TIGHT, 4' LONG, 6,000 LUMENS, 3,000K COLOR TEMPERATURE, FROSTED POLYCARBONATE LENS
L-H	STONCO	TWL10LED4KPCB1	120	13.9	LED	1	WALL PACK, 710 LUMENS, 4,000K COLOR TEMPERATURE, BUILT-IN PHOTOCELL
EXIT SIGN	LITHONIA	LHQMLED-R-HO-SD	120	4.3	LED	1	EXIT SIGN, RED LETTERS, MOUNTING, FACES, AND ARROWS AS INDICATED, HIGH CAPACITY NICAD BATTERY, SELF-DIAGNOSTICS
EM. LIGHT	LITHONIA	ELM2LED-HO-SD	120	2.88	LED	2	TWO HEAD LED EMERGENCY LIGHT, HIGH OUTPUT NICAD BATTERY, SELF DIAGNOSTICS, WHERE INDICATED, PROVIDE ELAQWPL0394SD WEATHERPROOF REMOTE HEAD WITH SELF-DIAGNOSTICS

PANEL SCHEDULE

MARK	CIRCUIT	DESCRIPTION OF LOAD	LOAD	VOLTS	POLES	TRIP
P	1	EXTERIOR LIGHTING		120	1	20
	2	TOILET/COMMAND/TRIAGE LIGHTS		120	1	20
	3	MULTIPURPOSE/STORAGE		120	1	20
	4	MULTIPURPOSE RECEPTS		120	1	20
	5	MULTIPURPOSE RECEPTS		120	1	20
	6	MULTIPURPOSE RECEPTS		120	1	20
	7	MULTIPUPOSE RECEPTS		120	1	20
	8	STORAGE ROOM 4 RECEPTS		120	1	20
	9	STORAGE ROOM 5 RECEPTS		120	1	20
	10	COMMAND 2 RECEPTS		120	1	20
	11	TRIAGE 3 RECEPTS		120	1	20
	12	MULTIPURPOSE RECEPTS		120	1	20
	13	TOILET ROOM RECEPTS		120	1	20
	14					20
	15					20
	16					20

PANEL SCHEDULE

MARK	CIRCUIT	DESCRIPTION OF LOAD	LOAD	VOLTS	POLES	TRIP
MDP	1	Sub-Feed to Panel P		208	3	200
	2	Sub-Feed to Existing Panels		208	3	200
	3	RTU-1		208	3	50

SCHEDULE OF STANDBY GENERATORS

MARK	MAKE	MODEL	FUEL	KW/KVA	DUTY	VOLTAGE	PHASES	WIRE	OVERCURRENT PROTECTION	REMARKS
GEN-1			NAT. GAS	125KVA	STANDBY	208	3	4		

NEW YORK STATE OF OPPORTUNITY | DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
535 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHOULD BE DESTROYED.
IT IS A VIOLATION OF SUBDIVISION EDUCATION LAW TO ALLOW ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants:

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

HA2F CONSULTANTS IN ENGINEERING
1 VAN PATTEN DRIVE
CLIFTON PARK, NY 12065
(518) 877-8566

Project Key

REVISIONS

Rev No	Description	Date:
1		
2		
3		
4		
5		

Client
New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title
Rotterdam Junction Firehouse Upgrades
1215 Main St
Rotterdam Junction, NY 12150

Drawing Title
ELECTRICAL GENERAL NOTES SYMBOL LEGEND SCHEDULES

Phase
60% SUBMISSION

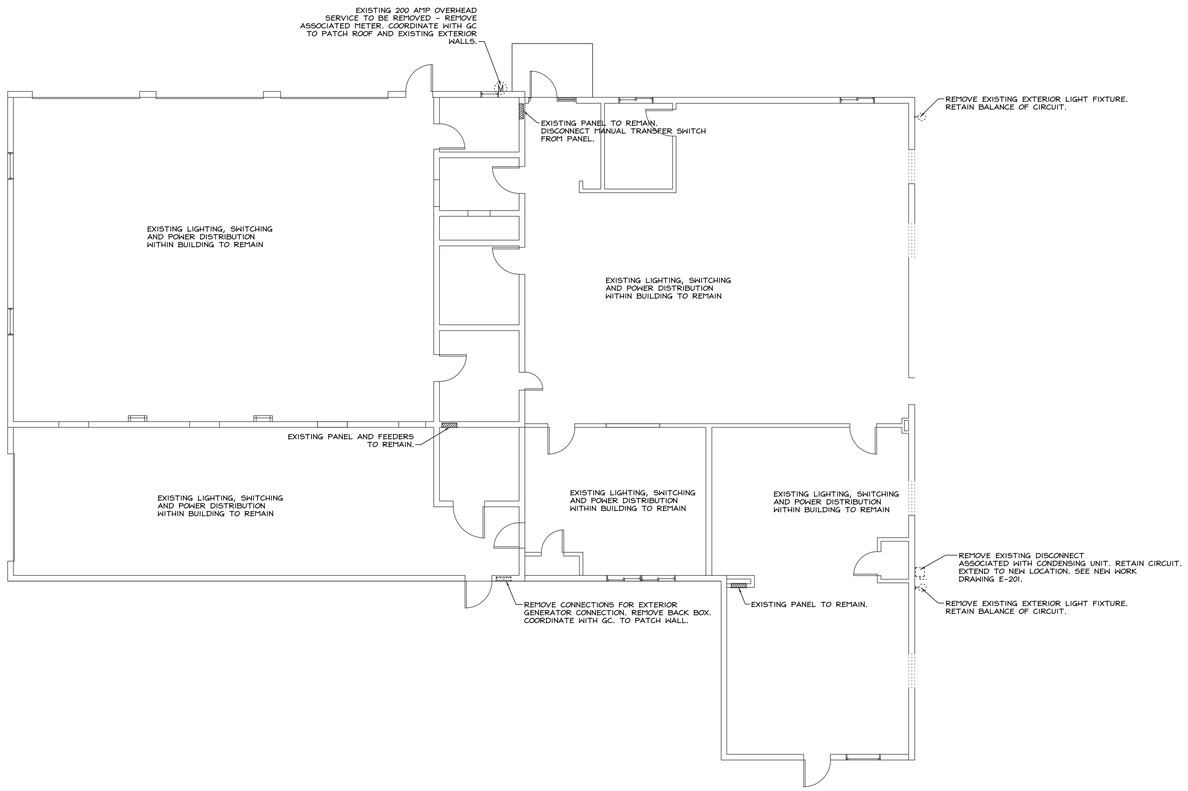
Drawn By: SMP | Checked By: SMP | Date: 01/21/2016

Seal & Signature

DASNY Project No: 328250

Drawing Number
E-001

Drawing ### of ###



NEW YORK STATE OF OPPORTUNITY | DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
530 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DRAWINGS AND DISPATCH DOCUMENTS SHALL BE RETURNED TO DASNY. IT IS A VIOLATION OF STATE EDUCATION LAW FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants:

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

HA2F CONSULTANTS IN ENGINEERING
1 VAN PATTEN DRIVE
CLIFTON PARK, NY 12065
(518) 877-8566

Project Key

REVISIONS

Rev No	Description	Date:
1		
2		
3		
4		
5		

Client
New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title
Rotterdam Junction Firehouse Upgrades
1215 Main St
Rotterdam Junction, NY 12150

Drawing Title
ELECTRICAL REMOVALS

Phase
60% SUBMISSION

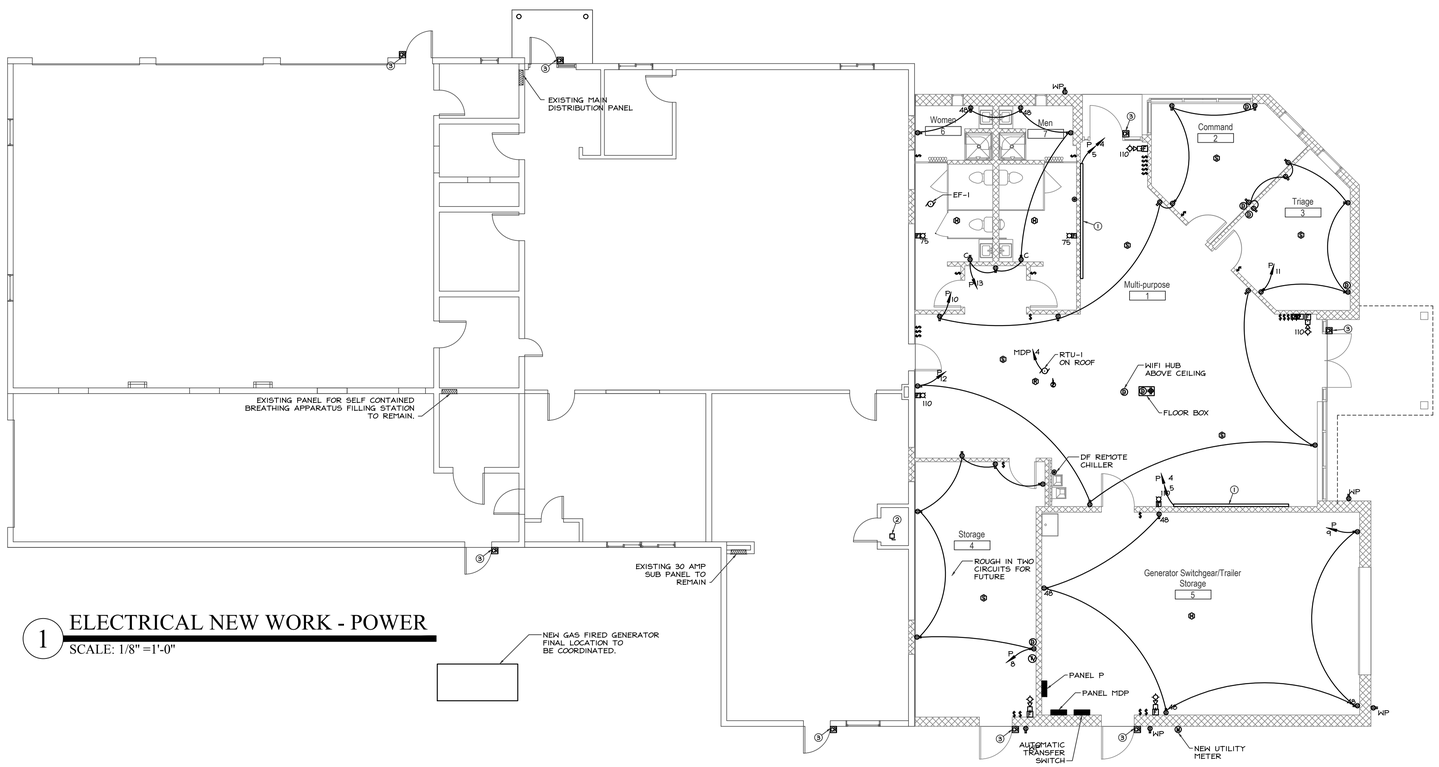
Drawn By:	Checked By:	Date:
SMP	SMP	01/21/2016

Seal & Signature

DASNY Project No:
328250

Drawing Number
E-101

Drawing
of###



1 ELECTRICAL NEW WORK - POWER

SCALE: 1/8" =1'-0"

2 ELECTRICAL NEW WORK - LIGHTING

SCALE: 1/8" =1'-0"

CONSTRUCTION NOTES:

1. DIVIDED G-4000 RACEWAY WITH POWER & DATA SECTIONS. POWER SECTION TO HAVE DUPLEX RECEPTACLES 12" O.C.; DATA SECTION TO HAVE 6 HAT DATA OULTETS 18" O.C. EACH OUTLET TO HAVE 3 DATA AND 3 PHONE AND ONE TV OUTLET TO BE CENTERED ON UNIT.
2. REINSTALL RETAINED DISCONNECT FOR RELOCATED CONDENSING UNIT. EXTEND CIRCUIT AS REQUIRED.
3. CARD READER- PROVIDE BACK BOX AND CONDUIT BACK TO COMMAND ROOM. WIRING AND CARD READER PROVIDED BY OWNER.

NEW YORK STATE OF OPPORTUNITY | DASNY

515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DOCUMENTS SHALL BE RETURNED TO DASNY. IT IS A VIOLATION OF STATE EDUCATION LAW TO ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants:

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

HA2F CONSULTANTS IN ENGINEERING
1 VAN PATTEN DRIVE
CLIFTON PARK, NY 12065
(518) 877-8566

Project Key

REVISIONS

Rev No	Description	Date:
1		
2		
3		
4		
5		

Client
New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title
Rotterdam Junction Firehouse Upgrades
1215 Main St
Rotterdam Junction, NY 12150

Drawing Title
ELECTRICAL NEW WORK

Phase
60% SUBMISSION

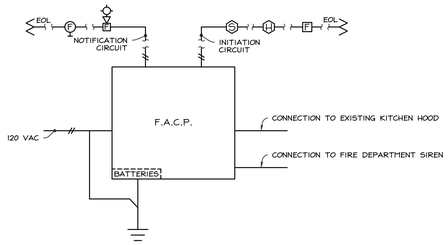
Drawn By:	Checked By:	Date:
SMP	SMP	01/21/2016

Seal & Signature

DASNY Project No: 328250

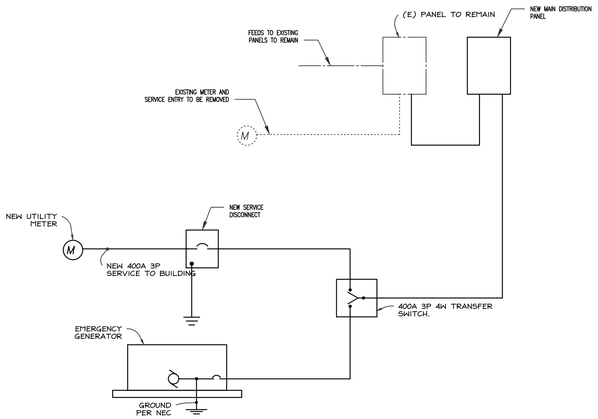
Drawing Number
E-201

Drawing
of###



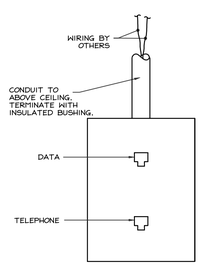
1 DETAIL - FIRE ALARM ONE LINE DIAGRAM

N.T.S.



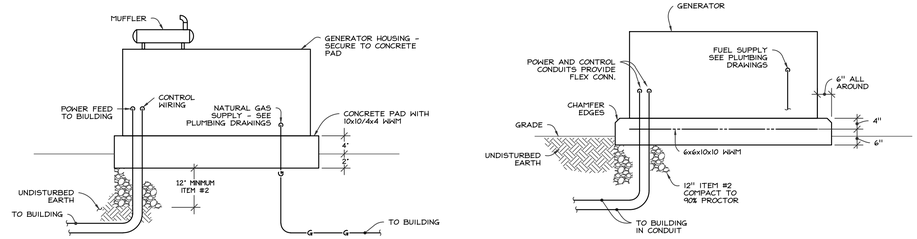
2 DETAIL - ONE LINE DIAGRAM

N.T.S.



3 DETAIL - DATA OUTLET

N.T.S.



4 DETAIL - GENERATOR INSTALLATION

SCALE: N.T.S.

NEW YORK STATE OF OPPORTUNITY | DASNY
515 Broadway, Albany, New York 12207-2964
One Penn Plaza, 52 Floor NY, NY 10119-0098
539 Franklin Street, Buffalo, NY 14202-1109
WWW.DASNY.ORG

THESE DOCUMENTS CONTAIN POTENTIALLY SENSITIVE INFORMATION AND SHALL BE USED FOR THEIR INTENDED PURPOSE. ONCE THE INTENDED PURPOSE HAS CEASED, THE DRAWINGS AND DATA SHALL BE RETURNED TO DASNY. THE DRAWINGS AND DATA SHALL NOT BE REPRODUCED BY ANY PERSON, UNLESS UNDER THE DIRECTION OF A LICENSED ARCHITECT/ENGINEER TO ALTER THIS DOCUMENT IN ANYWAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATIONS, DATE AND ARCHITECT/ENGINEER'S SIGNATURE. COPYRIGHT © 2015

Consultants:

TRUDEAU Architects, pllc
TRUARCHS Online, llc
consultants to facility professionals in planning, design and IT
219 Forts Ferry Road, Latham, NY 12110
phone 518 785 5851 | fax 518 785 6516

HA2F CONSULTANTS IN ENGINEERING
1 VAN PATTEN DRIVE
CLIFTON PARK, NY 12065
(518) 877-8566

Project Key

REVISIONS

Rev No	Description	Date:
1		
2		
3		
4		
5		

Client
New York Rising Community Reconstruction Program

GOSR
Governor's Office of Storm Recovery

Project Title
Rotterdam Junction Firehouse Upgrades
1215 Main St
Rotterdam Junction, NY 12150

Drawing Title
ELECTRICAL
GENERAL NOTES
SYMBOL LEGEND
SCHEDULES

Phase
60% SUBMISSION

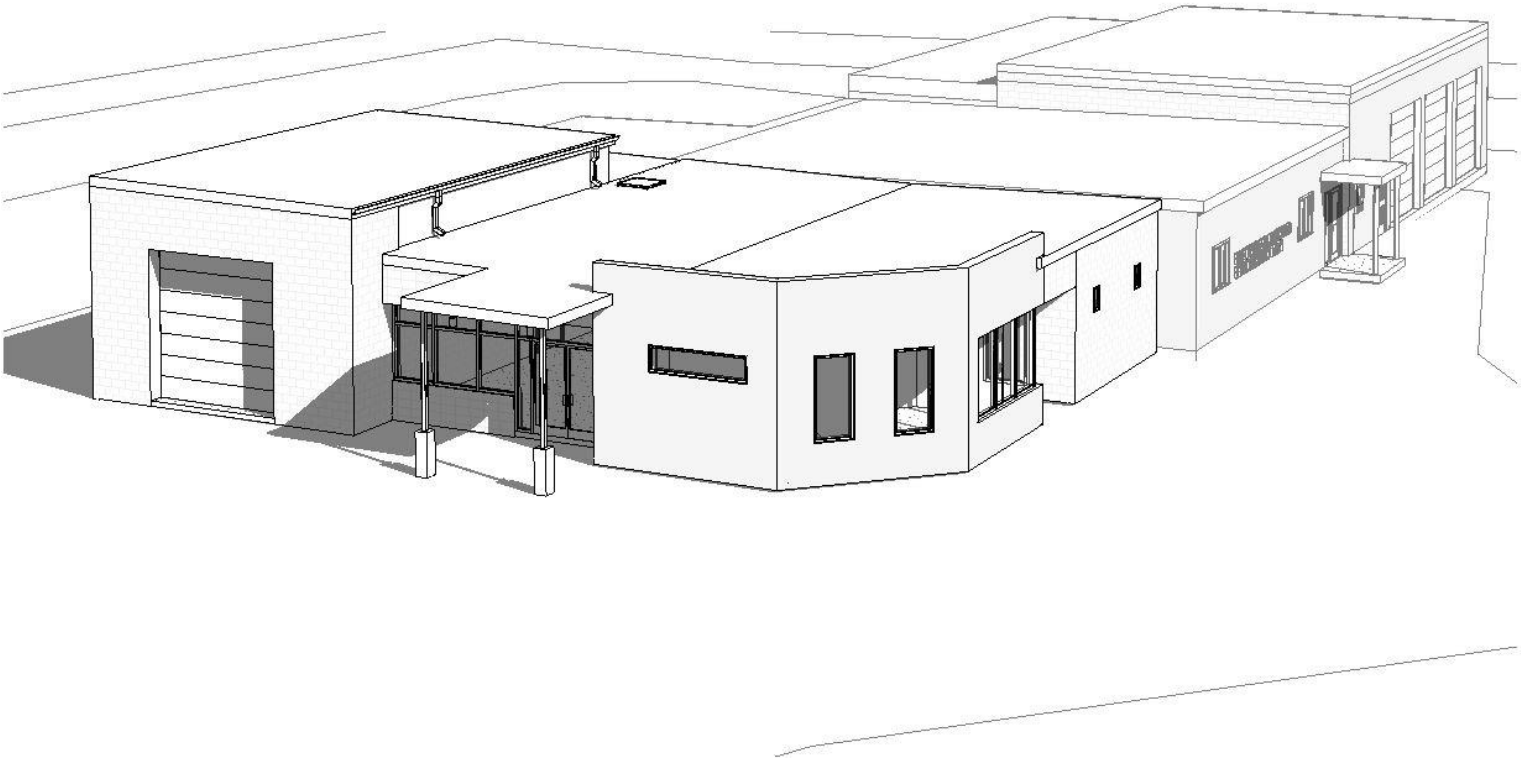
Drawn By:	Checked By:	Date:
SMP	SMP	01/21/2016

Seal & Signature

DASNY Project No:
328250

Drawing Number
E-301

Drawing
of###



GOSR – NYSHCR - DASNY

60% SUBMISSION

ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE UPGRADES

1215 MAIN STREET, ROTTERDAM, NY

DASNY Project: 328250

TA: 227.04.33

5 February 2016

TRUDEAUarchitects pllc
TRUARCHSonline llc
the art and science of facilities®

NYSHCR – GOSR - DASNY

ROTTERDAM JUNCTION VOLUNTEER FIREHOUSE UPGRADES

TABLE OF CONTENTS

1 Contact Information 1

2 Scope of Work 3

2.1 General ... 3

2.2 Background ... 3

2.3 Project Goals ... 3

2.4 Scope of Work ... 3

2.4.1 Site Work ... 3

2.4.2 Site Conditions ... 3

2.4.3 Building Removals ... 4

2.4.4 Addition ... 4

2.4.5 Structural ... 4

2.4.6 Hazardous Material ... 4

2.4.7 Mechanical, Electrical and Plumbing ... 4

3 Other Information 5

3.1 Codes, Laws, Standards, and Policies ... 5

4 Appendix A – Geotechnical Report 6

5 Appendix B – Site Visit Report: Septic Capacity 7

6 Appendix C – Structural Narrative 8

7 Appendix D – Hazardous Materials Report 9

8 Appendix E – HVAC Load Analysis 10

1 Contact Information

✓ = Primary Contact/Author

Trudeau Architects PLLC

Name	Role	Phone #	Fax #	Email
Bart Trudeau	President	(518) 785-5851 x111	(518) 785-6516	bart.trudeau@truarchs.com
✓Nathan Watkins	Project Manager	(518) 785-5851 x118	(518) 785-6516	nathan.watkins@truarchs.com

Rotterdam Junction Volunteer Fire Department

Name	Role	Phone #	Fax #	Email
Jim Carangelo	Chairman	(518) 421-6639		jcarange@nycap.rr.com

Governor's Office of Storm Recovery

Name	Role	Phone #	Fax #	Email
Laurice Salamack	Regional Lead	(518) 473-0041		Laurice.Salamack@stormrecovery.ny.gov

New York State Homes & Community Renewal

Name	Role	Phone #	Fax #	Email
Alicia Schultz	Community Developer	(518) 474-0647		Alicia.Shultz@nyshcr.org

Hunt Guillot and Associates

Name	Role	Phone #	Fax #	Email
Tony Brual	Project Management	(504) 228-5017		tbrual@hga-llc.com

Dormitory Authority of New York State

Name	Role	Phone #	Fax #	Email
Salvatore Renda	Regional Project Manager	(518) 257-3211		srenda@dasny.org
Peter Johantgen	Project Manager	(518) 257-3127		PJohantg@dasny.org

Ryan Biggs|Clark Davis Engineering & Surveying, P.C.

Name	Role	Phone #	Fax #	Email
Tom Field	Civil Engineer	(518) 794-8613		TField@ryanbiggs.com
Jeff Hodgson	Structural Engineer	(518) 406-5506		JHodgson@ryanbiggs.com

HA2F Consultants in Engineering

Name	Role	Phone #	Fax #	Email
Susan Palmatier	MEP + FS + HazMat	(518) 877-8566		palmatiers@ha2f.com
Bill Fink	MEP	(518) 877-8566		finkb@ha2f.com

Baer & Associates, LLC

Name	Role	Phone #	Fax #	Email
Joe Dommer	Cost Estimate	(716) 831-0000		jdommer@Baer-Associates.com
Tom Balcerzak	Cost Estimate	(716) 831-0000		tbalcerzak@Baer-Associates.com

2 SCOPE OF WORK

2.1 GENERAL

Rotterdam Junction Volunteer Firehouse
Occupancy Classification: A-3, B, S-1
Construction Type: II-B

2.2 BACKGROUND

During Hurricane Irene the 5,956 GSF Rotterdam Junction Firehouse building operated as an emergency center to provide an office space, medical service, and meal service for the local community affected by flood. To provide these services while maintaining the firehouse operations active was a challenge since the space is currently not set up to operate as a fully functioning emergency center. In order to adequately prepare the firehouse for operation as an emergency center, extensive building upgrades are required.

2.3 PROJECT GOALS

The proposed work will provide a multi-purpose area, triage, and emergency vehicle storage room which will also provide a switchgear generator room.
The firehouse upgrades are to provide a more adequate support during an emergency event.

2.4 SCOPE OF WORK

2.4.1 SITE WORK

2.4.1.1 Remove & relocate existing memorial tree and plaque.
2.4.1.2 Remove existing underground electric and irrigation line to illuminate sign in planter.
2.4.1.3 Install silt fence around work area.
2.4.1.4 Excavate area for new building. Remove existing cinder fill.
2.4.1.5 Grade area for new parking lot.
2.4.1.6 Install concrete sidewalks, curbs.
2.4.1.7 Install asphalt and subbase for sidewalk.
2.4.1.8 Install asphalt and subbase for parking lot.
2.4.1.9 Install bollards and parking signs.
2.4.1.10 Install new electric and irrigation to illuminated sign in planter.
2.4.1.11 Mulch planting areas.
2.4.1.12 Topsoil & seed disturbed areas and establish lawn.

2.4.2 SITE CONDITIONS

2.4.2.1 Refer to ***Appendix A - Geotechnical Report***
2.4.2.2 Refer to ***Appendix B - Field Report: Septic Capacity***

219 Forts Ferry Road | Latham, NY 12110 | 518 785 5851 | www.truarchs.com

2.4.3 Building Removals

2.4.3.1 Removal of existing building components: one (1) hollow metal door and frame; four (4) windows; two (2) 4'x4' concrete pads; +/-74' of roof edge at addition; eight (8) concrete parking stops; one (1) aluminum door canopy; two (2) 2' concrete bollards; sealing of two (2) vent pipes to exterior; removal and protection of one (1) A/C condenser unit; miscellaneous TV cable protection; and removal of three (3) exterior wall mounted light fixtures.

2.4.4 Addition

2.4.4.1 Multi-purpose room, restrooms: two (2) aluminum storefront entrances; three (3) floor mounted commercial water closets; one (1) urinal; four (4) lavatories; two (2) ADA modular showers; standard toilet partitions and accessories; and two (2) drinking fountains.

2.4.4.2 Building Envelope: exterior building walls clad with common face brick and ground face CMU veneer; sloped EPDM roof on metal deck; CMU and metal stud back-up walls; aluminum metal trim fascia with satin finish; aluminum roof hatch and aluminum ships ladder; overhead coiling door; and build addition to comply with energy code with continuous insulation.

2.4.5 Structural

2.4.5.1 Refer to ***Appendix C – Structural Narrative***

2.4.6 Hazardous Material

2.4.6.1 Refer to ***Appendix D – Hazardous Materials Report***

2.4.7 Mechanical, Electrical and Plumbing

2.4.7.1 Mechanical:

- Provide New rooftop unit with VAV boxes
- Provide gas fired unit heaters
- Provide new roof mounted exhaust fan for toilet rooms
- New gas service
- Refer to ***Appendix E – HVAC Load Analysis***

2.4.7.2 Electrical:

- New 125kva natural gas fired generator
- New 400 amp 3 phase overhead service
- Automatic transfer switch
- New addressable fire alarm system
- New LED lighting
- Power distribution
- Connection to existing sub panels throughout the building.

2.4.7.3 Plumbing:

- New water service
- Provide oil separator for floor drains in garage
- Provide instantaneous gas fired direct vent hot water heater
- Modify existing water service to only be used for filling of tanker trucks.
- Provide new plumbing fixtures

3 OTHER INFORMATION

3.1 CODES, LAWS, STANDARDS, AND POLICIES

The codes and laws referenced in this report and are:

- 2010 The Building Code of New York State (BCNYS)
- 2010 Existing Building Code of New York State (EBCNYS)
- 2010 The Fire Code of New York State (FCNYS)
- 2010 Mechanical Code of New York State (MCNYS)
- 2010 Property Maintenance Code of New York State (PMCNYS)
- 2010 The Plumbing Code of New York State (PCNYS)
- 2014 Energy Conservation Construction Code of New York State (ECCCNYS)
- New York State Department of Health Guidelines (NYSDOH)
- National Fire Protection Association (NFPA) - *NFPA 101: Life Safety Code*

The Standards referenced in this report are:

- National Fire Protection Association (NFPA), *NFPA 220: Standard on Type of Building Construction*
- National Fire Protection Association (NFPA) - *NFPA 241: Standard for Safeguarding Construction, Alteration and Demolition Operations*

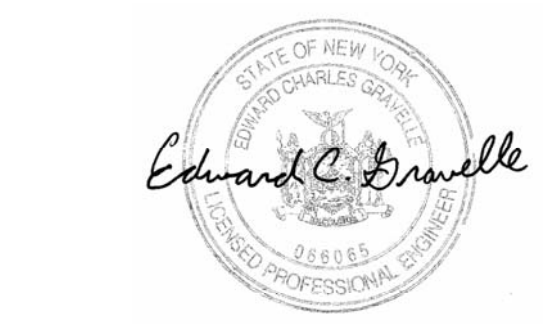
4 APPENDIX A – GEOTECHNICAL REPORT

GEOTECHNICAL EVALUATION
FIREHOUSE ADDITIONS
ROTTERDAM JUNCTION, NEW YORK

Dente File No. FDE-15-256

Prepared For:

TRUDEAU ARCHITECTS, PLLC
219 Forts Ferry Road
Latham, New York 12110



Prepared By:

DENTE ENGINEERING, P.C.
Watervliet, New York

January 4, 2016

Important Information About Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one - not even you* - should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from alight industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes - even minor ones - and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ-sometimes significantly from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in-this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely on Your ASFE-Member Geotechnical Engineer For Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.

ASFE
The Best People on Earth

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone:' 301/565-2733 Facsimile: 301/589-2017
e-mail: info@asfe.org www.asfe.org

Copyright 2004 by ASFE, Inc. Duplication, reproduction, or copying of this document, in whole or in part, by any means whatsoever, is strictly prohibited, except with ASFE's specific written permission. Excerpting, quoting, or otherwise extracting wording from this document is permitted only with the express written permission of ASFE, and only for purposes of scholarly research or book review. Only members of ASFE may use this document as a complement to or as an element of a geotechnical engineering report. Any other firm, individual, or other entity that so uses this document without being anASFE member could be committing negligent or intentional (fraudulent) misrepresentation.

IIGER06045.0M

TABLE OF CONTENTS

I. INTRODUCTION 1

II. SITE AND PROJECT DESCRIPTION 2

III. SITE INVESTIGATIONS 2

IV. CONCLUSIONS AND RECOMMENDATIONS 3

A. General Site Evaluation 3
B. Seismic Design Considerations 4
C. Site Preparation and Earthwork 4
D. Foundations 5
E. Floor Slabs 5
F. Flexible and Rigid Pavements 6
G. Construction Monitoring 7

V. CLOSURE 7

APPENDICES

APPENDIX A Site Location Map and Aerial Photograph

APPENDIX B Subsurface Investigation Plan

APPENDIX C Test Boring Logs and Key

ALBANY AREA
594 Broadway
Watervliet, NY 12189
Voice 518-266-0310
Fax 518-266-9238

BUFFALO AREA
PO Box 482
Orchard Park, NY 14127
Voice 716-649-9474
Fax 716-648-3521

GEOTECHNICAL EVALUATION
FIREHOUSE ADDITIONS
ROTTERDAM JUNCTION, NEW YORK

Dente File No. FDE-15-256

I. INTRODUCTION

Presented herein are the results of a geotechnical evaluation completed by Dente Engineering, P.C. for a building addition planned for construction at the Firehouse in Rotterdam Junction, New York. This evaluation was prepared at the request and under the authorization of Trudeau Architects , PLLC of Latham, New York. In general, the geotechnical evaluation consisted of the following:

- Layout and completion of five test borings at the project site,
- Visual classification of the soil samples recovered from the test borings and preparation of individual subsurface logs by a Geotechnical Engineer,
- Preparation of this report which summarizes the results of the site explorations, and presents recommendations to assist in planning for earthwork and the design and construction of foundations, floor slabs, and pavements.

This report and the recommendations contained within it were developed for specific application to the site and construction planned, as we currently understand it. Corrections in our understanding, changes in the structure locations, their grades, loads, etc. should be brought to our attention so that we may evaluate their effect upon the recommendations offered in this report.

It should be understood that this report was prepared, in part, on the basis of a limited number of test borings. The borings were made at discrete locations and the overburden soils sampled at specific depths. Conditions are only known at the locations and through the depths investigated. Conditions at other locations and depths may be different, and these differences may impact upon the conclusions reached and the recommendations offered.

A sheet entitled *"Important Information about your Geotechnical Engineering Report"* prepared by the Association of Engineering Firms Practicing in the Geosciences is presented following the title page of this report. This sheet should never be separated from this report and be carefully reviewed as it sets the only context within which this report should be used.

This report was prepared for informational purposes only and should not be considered part of the contract documents. It should be made available to interested parties in its entirety only. Should the data contained in this report not be adequate for the contractor's purposes, the contractor may make their own investigations, tests and analyses for use in bid preparation.

The recommendations offered in this report concerning the control of surface and subsurface waters, moisture or vapor membranes address conventional Geotechnical Engineering aspects only and are not to be construed as recommendations for controlling or providing an environment that would prohibit or control infestations of the structure or its surroundings with mold or other biological agents.

II. SITE AND PROJECT DESCRIPTION

The existing Firehouse is located at 1215 Main Street in Rotterdam Junction, New York as shown on the USGS topographic map and aerial photograph presented in Appendix A. The map and photograph are provided to assist the reader in locating the site and reviewing the overall topography and land use in the project area.

The new addition is planned along the southeast side of the existing firehouse building in an area which is a relatively level asphalt surfaced parking lot. The new addition will be similar to the existing building, i.e., a single story, slab-on-grade structure with brick exterior walls. The addition will house multi-purpose, storage, office, and mechanical room spaces. A new parking lot is planned southeast from the new addition in an area which is a relatively level lawn.

III. SITE INVESTIGATIONS

The site conditions were investigated through the completion of five test borings at the approximate locations shown on the Subsurface Investigation Plan presented in Appendix B. The borings were made using a standard rotary drill rig equipped with hollow stem augers. As the augers were advanced, the soils were sampled and their relative density determined using split-spoon sampling techniques in general accord with ASTM D1586 procedures.

Representative portions of the soil samples recovered from the borings were transported to our office for visual classification by a Geotechnical Engineer. Individual subsurface logs, which were prepared based upon the visual classifications, are presented in Appendix C together with a key to the terms used in their preparation.

The subsurface logs should be referenced for the actual conditions encountered at each boring location. In general, the test borings first penetrated through the existing pavement section followed by several feet of fill material over a sequence of silt followed by a thick layer of sand and gravel.

Existing Pavement Section

The pavement section was composed of about 4 to 7 inches of asphaltic concrete and 0 to 4 inches of base course material.

Fill Materials
Beneath the pavement section was a layer of fill material which extended to depths ranging between 3 and 5 feet below the pavement surface. The fill was composed of black cinders or black cinders with layers of brown silt. The fills were moist and of a loose to firm relative density.

Native Silt Soils
Beneath the fills was a layer of brown silt which contained occasional seams of fine sand with some silt. The soils within this layer were moist to wet and of a loose relative density. The silt layer extended to depths ranging between 10 and 15 feet below grade.

Native Sand and Gravel Soils
Beneath the silt layer was a deep deposit of sand and gravel with trace amounts of silt. These soils were wet immediately below the silt layer and then graded moist before becoming saturated about 25 to 30 feet below grade. Overall, the sand and gravel was judged to be of a loose to compact relative density. All test borings were ended in the sand and gravel layer at depths of 17 and 52 feet below the pavement surface.

Groundwater
Groundwater measurements were obtained in the augers and the results are noted on the individual subsurface logs. It should be understood that these measurements do not accurately reflect the actual groundwater depths because adequate time did not pass after completion of drilling for water to enter and achieve a static level in the augers.

It appears that two groundwater conditions were encountered in the test borings. First, the static groundwater level was judged to be present within the sand and gravel layer about 27 feet below the pavement surface. Groundwater also appeared to trapped within the silt sequence beginning at depths of about 5 to 7 feet where the soils became very moist to wet. The upper few feet of the underlying sand and gravel layer was also wet, this indicating that drainage into this layer is occurring from the overlying silt sequence. It should be noted that during wet periods of the year groundwater may also be found perched within the cinder fills overlying the native silt layer.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. GENERAL SITE EVALUATION

It is our opinion that the existing cinder fills are not suitable for support of new building foundations or floor slabs, and these fills should be removed and replaced in their entirety from beneath the building pad. The native soils underlying the fills consist of silt, which during wet periods of the year may be wet and sensitive to disturbance. For this reason, removal and replacement of the fills should be planned, if possible, during a seasonal dry period. Assuming that the existing fills are removed and replaced as recommended, the new building addition may be supported on conventional shallow spread foundations with slab-on-grade construction.

The following report sections provide detailed recommendations to assist in planning for design and construction of foundations, floor slabs, and pavements. We should review

building plans and specifications prior to their release for bidding to confirm that our recommendations were properly interpreted and applied and to allow us to refine our recommendations if necessary based on the final design.

B. SEISMIC DESIGN CONSIDERATIONS

For seismic design purposes, we have evaluated the site conditions in accord with Section 1613 of the New York State Building Code (2010). On this basis, we have determined that Seismic Site Class "D - Stiff Profile" is applicable to this project. Based upon the composition of the soils, it is our opinion that liquefaction induced by earthquake motions is unlikely to occur and should not be a factor in the building design.

Using the general building code procedures and applying the Site Class "D" designation, we obtained the following spectral response parameters.

Short Period Spectral Response Acceleration: $S_S = 0.194$
1-Second Period Spectral Response Acceleration: $S_1 = 0.072$

Short Period Site Coefficient: $F_a = 1.6$
1-Second Period Site Coefficient:: $F_v = 2.4$

Short Period Design Spectral Response Parameter: $S_{DS} = 0.207$
1-Second Period Design Spectral Response Parameter: $S_{D1} = 0.116$

Assuming occupancy Categories I-III, Tables 1613.5.6 (1) and (2) of the Building Code define the project as Seismic Design Category "B".

C. SITE PREPARATION AND EARTHWORK

Site preparation for the new building addition should begin with stripping of asphalt and removal of all existing fills. The removals should extend at least 5 feet outside the perimeter of the addition and the work sequenced such that construction equipment does not travel over the sensitive silt subgrade beneath the fill. A backhoe equipped with a smooth bladed bucket should be used to trim the native silt to final grade. If perched groundwater is encountered, sumps and/or interceptor trenches should be installed as required to remove the water from the building site.

The fill removals should be observed by a Geotechnical Engineer and a geotextile stabilization fabric placed over the approved subgrade surface. The undercut should be backfilled with imported Structural Fill.

Site preparation in proposed pavement areas should begin with stripping of asphalt and/or topsoil. The exposed subgrade should be proof-rolled using a steel drum roller with a static weight of at least ten tons. The roller should operate in its static mode unless requested otherwise by the Geotechnical Engineer observing the work, and travel at a speed not exceeding three feet per second (two miles per hour). Soft areas which are identified by the proof-rolling should be investigated to ascertain the cause and, where determined to be necessary, undercut and replaced with Structural Fill.

Structural Fill should be used as fill/backfill within the proposed building pad and pavement areas. The fill should consist of imported sand and gravel or crusher-run stone which conforms to the requirements stipulated for Type 2 or 4 material in Section 304-2.02 of the NYSDOT Standard Specifications for Construction and Materials. The imported materials should be free of recycled concrete, asphalt, bricks, glass and pyritic shale rock.

The Structural Fill should be placed in uniform loose layers no more than about one foot thick where heavy vibratory compaction equipment is used. Smaller lifts should be used where hand operated equipment is required for compaction. Each lift should be compacted to not less than 95 percent of the maximum dry density for the soil which is established by the Modified Proctor Compaction Test, ASTM D1557.

D. FOUNDATIONS

All new building foundations should be seated on native silt soils or on Structural Fill placed over the native soils after all existing fills are removed. The native bearing surfaces, where encountered, should be trimmed to final grade manually or using a backhoe equipped with a smooth bladed bucket. A stabilization fabric (Mirafi 500X or eq.) and minimum 6 inch thick base of crushed stone (Blend 57 material) should be placed over any native soil bearing grades. If any water enters the excavations it should be promptly removed together with any soft/wet bearing grade soils. All final bearing grades should be relatively firm, stable and free of loose soil, mud, water and frost.

The foundations may be proportioned for a maximum net allowable bearing pressure equal to 2,000 pounds per square foot. Continuous wall foundations should have a minimum width of 18-inches and isolated column foundations should be at least 36-inches wide. Exterior foundations should bear at least four feet beneath final adjacent exterior grades to afford frost penetration protection. Interior foundations may be seated at a nominal two foot depth below the slab if allowed by local building codes.

Assuming standard care is used in preparing the foundation bearing grades, we estimate that total foundation settlements should be less than one inch. The settlements should occur within a few hours to days after construction is completed and loads are applied.

E. FLOOR SLABS

The floor slabs should be provided with a minimum four inch thick base course of crushed stone (Blend 57 material) placed over the Structural Fill. A vapor retarder (Stego Wrap 15 mil Class A or equivalent) should be installed if floor coverings or moisture sensitive coatings are to be placed on the slab. The vapor retarder should be positioned, i.e., above or below the stone base, in accord with the American Concrete Institute (ACI) Manual of Concrete Practice Manual Section 302.1R.

The floor slabs may be designed in accord with the recommended procedures of the American Concrete Institute or Portland Cement Association using a vertical modulus of subgrade reaction equal to 200 pounds per cubic inch at the top of the recommended base layer.

F. FLEXIBLE AND RIGID PAVEMENTS

Two flexible pavement sections may be considered dependent upon anticipated traffic types. A Heavy Section should be used for entrance drives and areas subject to repeated fire truck traffic, and a Light Section for areas subject to automobile parking.

MATERIAL SECTION	THICKNESS		NYSDOT SPECIFICATION
	Light Duty	Heavy Duty	
Wearing Course	1½ "	1½"	403 Type 6
Binder Course	2½ "	4"	403 Type 3
Base Course	12"	18"	304 Type 2
Synthetic Fabric	Yes	Yes	Mirafi 500X

Rigid pavements and exterior pads should be provided with a minimum 12 inch thick base of crusher-run stone (NYSDOT Section 304-2.02, Type 2 material) placed over a stabilization fabric. The concrete thickness may be designed assuming a modulus of subgrade reaction equal to 150 pounds per cubic inch at the top of the base layer.

All materials and construction should conform with the NYSDOT Standard Specifications for Construction and Materials. The base course materials should be compacted to 95 percent of the maximum dry density for the material established through the Modified Proctor Compaction Test, ASTM D1557.

The recommended pavement section was designed primarily for automobile and fire truck traffic, and not to support heavy construction equipment loads or tractor trailer traffic which may require an augmented section. The contractor should construct temporary haul and construction roadways and routes about the site as appropriate for the specific weather conditions and equipment he intends to employ. Construction period traffic should not be routed across the recommended pavements.

It should be noted that all pavements require routine maintenance and occasional repairs. Failure to maintain the pavements or do repairs on a timely basis can materially shorten the pavement design life.

It should be understood that sidewalks and pavements constructed upon the site's soils will heave as frost seasonally penetrates the subgrades. The magnitude of the seasonal heave will vary with many factors, and result in differential movements. As the frost leaves the ground, the sidewalks and pavements will settle back, but not entirely in all areas, and this may accentuate the differential movements across the pavement areas. Where curbs, walks, and storm drains meet these pavements, these differential heave and settlements may result in undesirable movements, and create trip hazards. To limit the magnitude of heave and the creation of these uneven joints to generally tolerable magnitudes for most winters, a 16 inch thick crushed stone base course, composed of NYSDOT No. 1 and 2 size aggregate, may be placed beneath the sensitive sidewalk, drive, etc. areas. The stone layer must have an underdrain placed within it.

G. CONSTRUCTION MONITORING

Dente Engineering should be retained to monitor earthwork and bearing grade preparations for foundations, floor slabs, and pavements to validate the subsurface conditions assumed to exist for this study and the design recommended in this report. We believe this construction sequence observation and testing should be provided by the Geotechnical Engineer of record as a consultant to the Owner, Architect or Construction Manager. We do not believe these services should be provided through the general or earthwork contractor.

V. CLOSURE

This report was prepared using methods and practices common to Geotechnical Engineering in the area and at the time of its preparation. No other warranties, expressed or implied, are made.

Dente Engineering should review plans and specifications related to foundations and earthwork prior to their release for bidding to confirm that our recommendations were properly interpreted and applied. Dente Engineering should also be retained during construction to validate that the actual site conditions are similar to those assumed for development of the recommendations contained in this report.

Should questions arise or if we may be of any other service, please contact us at your convenience.

Prepared By:
Dente Engineering, P.C.

Edward C. Gravelle, P.E.
Vice President

Fred A. Dente, P.E.
President

Site Visit Report

Project: **Rotterdam Junction VFD Addition**
Project No. **11205**
Date: 12/11/2015
Location: Rotterdam Junction, NY
In Attendance: Tom Field, Rob Sasser, Everett Quackenbush – Ryan Biggs | Clark Davis
Dominick DiCarlo – Schenectady County Health Department, Jim Carangelo-Rotterdam Fire District #1, Matt Ross- Rotterdam Septic.

Comments:

The purpose of the site visit was to investigate and evaluate the existing septic system for the fire house. The expansion of the building will not result in any increase in flows nor are flows expected to increase from any program changes in the fire company. Accordingly, no changes to the septic system are planned.

- The existing septic tank was opened and observed through the cap on the inlet side of the tank. Capacity was 1000 gallons. Condition was considered good. Baffle intact. The last pump out was in 2011.
- No distribution box was found.
- The previous 600 sf trench system was replaced with two seepage pits. Installation date is unknown however it is likely that this was done in conjunction with the 1975 addition.
- A test pit was excavated in the rear of the building and a concrete cover was discovered approximately 30" below grade. It was the top of an 8' seepage pit. Swing ties from the building were taken to be able to locate it in the future. The location will be shown to scale on the project survey. There was no sign of failure or overflow in the soil around the seepage pit.
- A replacement deep test hole was excavated east of the seepage pit and a percolation test was conducted. Deep Test No 1 soil profile was as follows:
  0-32" sand, gravel, and black cinders
  32"-56" clay – no signs of mottling.
  The percolation test was conducted with the bottom of the test at 56". Percolation rate=55 minutes/ inch.
- A second Deep Test No. 2 was excavated further to the east in the lawn area. Soil profile was essentially the same as Deep Test No. 1

Capacity Estimate:

Assuming two 4' deep by 8' diameter seepage pits with 2' of surrounding stone and an application rate of 45 gallons per day per square foot, the existing system has a capacity of 135 gallons per day. Facility is used for weekly meetings on Mondays where average attendance is 18 members. Larger events are rarely scheduled. There have been no problems experienced with the septic system. Based on discussions at the site with Dominick DiCarlo, there are no improvements are required at this time. A general recommendation would be to pump the septic tank every three years.

Photos:

First test pit with top of seepage pit in corner of excavation. Deep Test No. 1 in background.

Deep Test No. 1 with percolation test running. Deep Test No 2 being excavated in the background.

Septic tank access plug located under the overhang.

Study area. Septic tank on left, initial test hole with seepage pit on right, Deep Test No. 1 with red water jug beyond.

6 APPENDIX C – STRUCTURAL NARRATIVE

7 APPENDIX D – HAZARDOUS MATERIALS REPORT

APPENDIX D
USFWS AND NYNHP
CORRESPONDENCE

Kaiser, Genevieve

From: Niver, Robyn <robyn_niver@fws.gov>
Sent: Monday, April 11, 2016 5:43 AM
To: Shultz, Alicia (NYSHCR)
Cc: King, Thomas J (STORMRECOVERY)
Subject: Re: Tree removal

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

All set based on prior letter. Thanks!

On Thu, Apr 7, 2016 at 2:05 PM, Shultz, Alicia (NYSHCR) <Alicia.Shultz@nyshcr.org> wrote:

Robyn,

Previously we submitted a Determination and Request for Concurrence under Section 7 of the Endangered Species Act for the Rotterdam Fire District #1 Firehouse, Town of Rotterdam, Schenectady County, NY. In this letter we stated that no trees would be removed and if trees were removed we would only do removal between November 1 and March 31 (see attached). However, it has been determined that one tree needs to be removed this summer, July.

According to the USFWS IPaC Trust Resource Report and list of threatened and endangered species, there is one threatened species that is potentially associated with the project site – the Northern Long Eared Bat (NLEB). There are no known hibernacula or maternity roosts in the vicinity of this location per communication with USFWS on August 28, 2015. On this basis, GOSR has determined that the proposed action is not likely to adversely affect NLEB.

Please let me know if additional consultation is required.

Alicia Shultz

Community Developer - Environmental Services

New York State Homes & Community Renewal

38-40 State St.,408N, Hampton Plaza, Albany, NY 12207

(518) 474-0647 | Alicia.Shultz@nyshcr.org |

--
****
Robyn A. Niver
Endangered Species Biologist
USFWS
New York Field Office
Cortland, NY 13045
607-299-0620

"Let us have faith that right makes might, and in that faith, let us to the end, dare to do our duty as we understand it." - Abraham Lincoln

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 Luker Road
Cortland, NY 13045

December 2, 2015

Ms. Alicia Shultz
Community Developer – Environmental Review
Governor's Office of Storm Recovery
NYS Homes & Community Renewal
38-40 State Street, Hampton Plaza
Albany, NY 12207

Dear Ms. Shultz:

This responds to your November 25, 2015, letter regarding the proposed upgrades and improvements to the Rotterdam Fire District #1 Firehouse located at 1215 Main Street in the Town of Rotterdam, Schenectady County, New York.

We understand that U.S. Department of Housing and Urban Development's (HUD) funding may be involved with the proposed project.

As you are aware, federal agencies, have responsibilities under Section 7 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to consult with the U.S. Fish and Wildlife Service (Service) regarding projects that may affect federally-listed species or designated critical habitat, and confer with the Service regarding projects that are likely to jeopardize federally-proposed species and/or adversely modify proposed critical habitat. We understand that NYS Homes & Community Renewal (NYSHCR) has been designated HUD's non-federal representative for the purposes of completing informal consultation pursuant to Section 7(a)(2) of the ESA.

On behalf of HUD, the NYSHCR determined the proposed project may affect, but is not likely to adversely affect, the federally-listed threatened northern long-eared bat (*Myotis septentrionalis*). Given the project locations and no anticipated tree removal but winter clearing of any incidental trees (November 1 - March 31) to avoid any chance of direct effects to this species, we concur with your determination.

No further coordination or consultation under the ESA is required with the Service at this time. Should project plans change, or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered. The most recent compilation

of federally-listed and proposed endangered and threatened species in New York is available for your information. Until the proposed project is complete, we recommend that you check our website every 90 days from the date of this letter to ensure that listed species presence/absence information for the proposed project is current.*

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the ESA. This response does not preclude additional Service comments under other legislation.

Any additional information regarding the proposed project and the potential to impact listed species should be coordinated with both this office and with the New York State Department of Environmental Conservation.

Thank you for your time. If you require additional information or assistance please contact Robyn Niver at 607-753-9334. Future correspondence with us on this project should reference project file 151398.

Sincerely,

Patricia Cole

for David A. Stilwell
Field Supervisor

*Additional information referred to above may be found on our website at: http://www.fws.gov/northeast/nyfo/es/section7.htm.

cc: NYSDEC, Schenectady, NY (Env. Permits)

December 3, 2015

Nicholas Conrad
New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program – Information Services
625 Broadway, 5th Floor
Albany, New York 12233-4757
VIA EMAIL: nick.conrad@dec.ny.gov

Re: Natural Heritage Compliance Process Request for the for the Rotterdam Fire District #1 Firehouse, Town of Rotterdam, Schenectady County, NY

Dear Mr. Conrad:

The Governor's Office of Storm Recovery (GOSR), acting under the auspices of New York State Homes and Community Renewal's (HCR) Housing Trust Fund Corporation (HTFC), on behalf of the Department of Housing & Urban Development (HUD), is preparing an Environmental Assessment (EA) for the upgrades and improvements to the Rotterdam Fire District #1 Firehouse, which are required for the Firehouse to meet Federal and County recommended standards as a functional emergency operations center for the Western Mohawk River Valley Region of Schenectady County in the Town of Rotterdam, Schenectady County, New York. GOSR also is preparing documentation under the State Environmental Quality Review Act (SEQRA).

The purpose of this letter is to request a search of the files of the New York Natural Heritage program for records of the occurrence of any rare animals, plants, and natural communities and/or significant wildlife habitats in the vicinity of this project. The information we receive from you will be used in SEQRA documentation and/or any permit applications. We will retain the confidentiality, as needed, of any information received.

Program Overview

During Hurricane Irene and Tropical Storm Lee, floodwaters from the Mohawk River overwhelmed Rotterdam. Floodwaters from the Mohawk inundated residences, businesses, and infrastructure. The local water and sewer systems, which were damaged during both storms, continue to be vulnerable to flood damage. The community of Rotterdam is preparing to act now to strengthen capacity of emergency and support

services to respond during a major storm event.

The New York Rising Community Reconstruction Planning Committee and members of the public consider the Rotterdam District #1 Firehouse to be an important project for enhancing flood disaster mitigation, preparedness, and response and recovery efforts in both a local and regional capacity. Impairment or loss of critical fire and rescue facilities would place the lives of community members affected by flooding in jeopardy. This project would directly reduce the health risk and potential for loss of life from flooding. It would increase the safety of residents and first responders, and allow emergency crews to serve the community faster, safer, and more effectively. It would protect vulnerable populations during flood-related events.

The project would occur at 1215 Main Street, Rotterdam Junction, New York, (see **Figure 1, Project Location Map**, and **Figure 2, Project Area Map**) and includes construction of a 2,250-square foot addition to the main hall on the east side of the firehouse; improvements to the interior environment of firehouse, expansion of the firehouse septic system, establishment of a power system backup, construction of a 200-square foot addition to house the generator switch gear with secure, controlled access and an alarm system; an addition to the garage for secure storage of rescue equipment; and restoration of parking areas lost as a result of building expansions.

Compliance

According to information reviewed from the New York State Environmental Resource Mapper, there are no significant natural communities or rare plants or animals that are known to exist on the site (see **Figure 3**). However, as the proposed project would result in the removal of trees, GOSR respectfully requests that the New York Natural Heritage Program review its records of concern for any rare or state-listed animals or plants, or significant natural communities, at this site or in its immediate vicinity.

According to the US Fish and Wildlife Service (USFWS), that there is one threatened species that is potentially associated with the project site – the northern long-eared bat. In addition, there are several migratory birds of concern that could potentially be affected by the proposed project. Consultation with the USFWS confirmed that there are no known hibernacula or roosts trees in this area. In order to avoid any chance of direct effects to this species, GOSR will only approve the project subject to the condition that trees are removed between November 1 and March 31.

If you have questions or require additional information regarding this request, please contact me at (518) 474-0647 or Alicia.Shultz@nyshcr.org. Thank you for your time and consideration.

Sincerely,

Alicia Shultz
Community Developer - Environmental Services
New York State Homes and Community Renewal
38-40 State Street, Hampton Plaza
Albany NY 12207

cc:
Governor's Office of Storm Recovery
Enclosures:
Figure 1: Project Location Map
Figure 2: Project Area Map
Figure 3: Environmental Resource Mapper Findings
Figure 4: Flood Zones Map
Figure 5: Freshwater Wetlands Map
Figure 6: FEMA FIRM

Figure 1. Project Location Map

Figure 2. Project Area Map

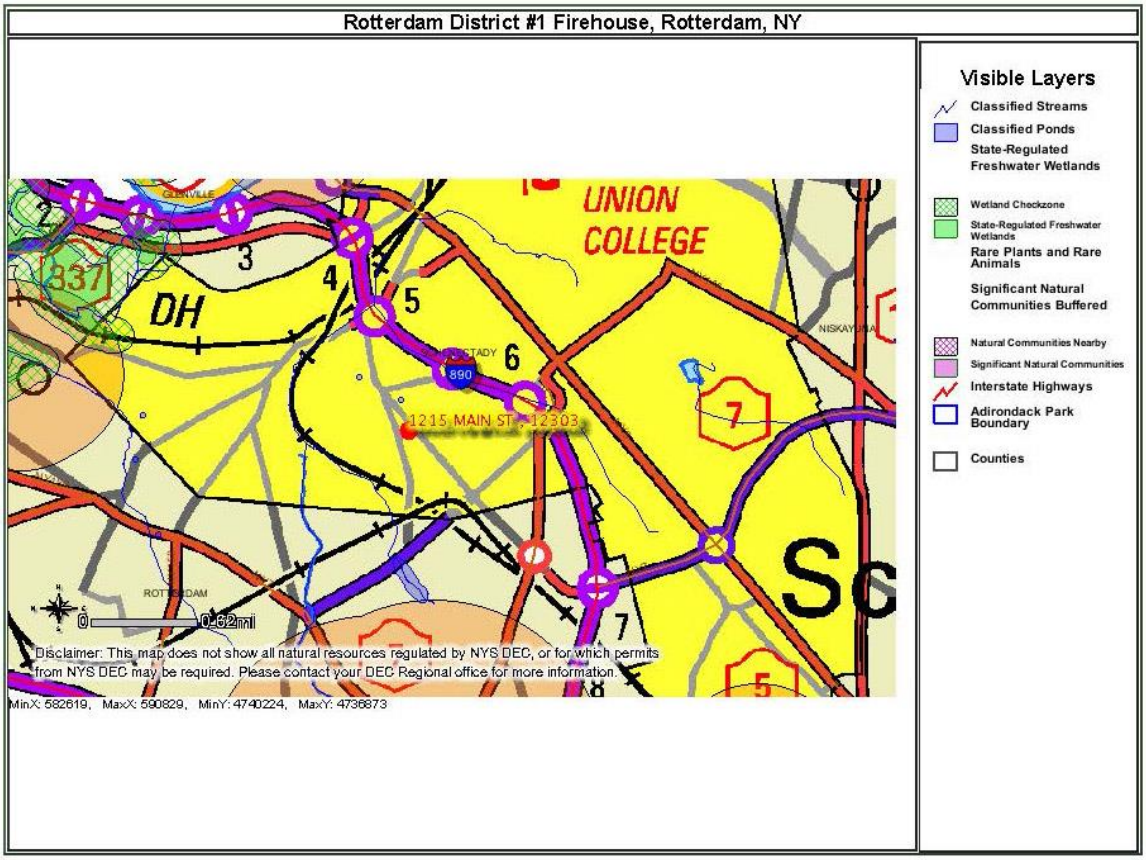


Figure 3. Environmental Resource Mapper Findings

Figure 4: Flood Zones Map

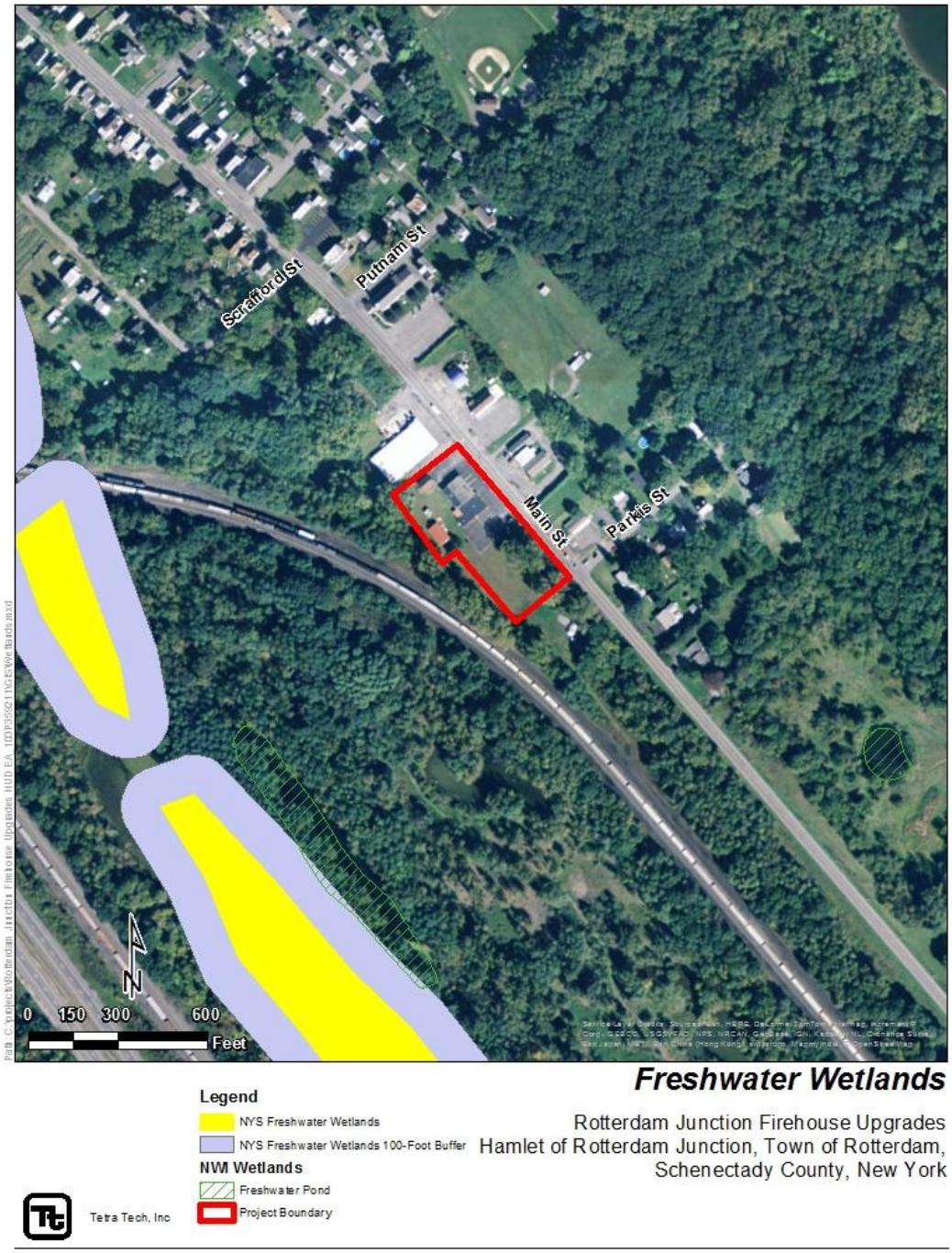


Figure 5: Freshwater Wetlands Map

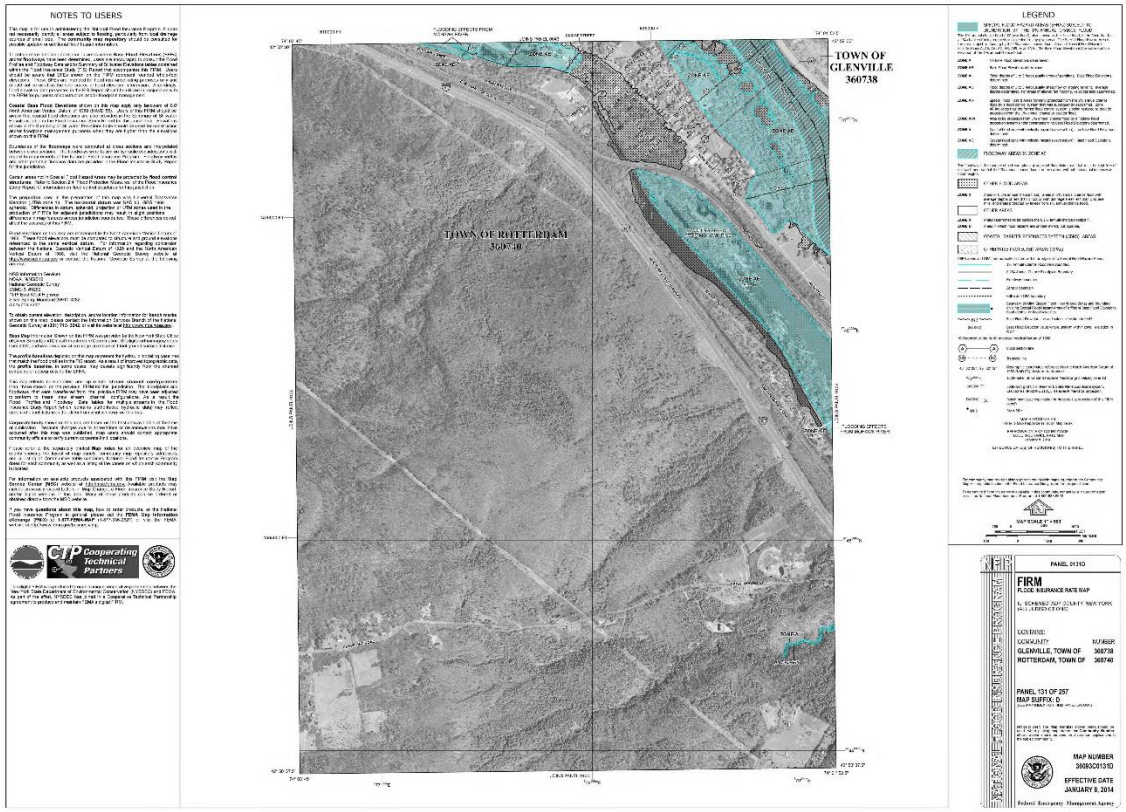


Figure 6: FEMA FIRM

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife and Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • Fax: (518) 402-8925
Website: www.dec.ny.gov

December 18, 2015

Alicia Shultz
New York State Homes & Community Renewal
38-40 State Street, Hampton Plaza
Albany, NY 12207

Re: Proposed upgrades and improvements to the Rotterdam Fire District #1 Firehouse at 1215 Main Street
Town/City: Rotterdam. County: Schenectady.

Dear Alicia Shultz:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at your site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

Andrea Chaloux

Andrea Chaloux
Environmental Review Specialist
New York Natural Heritage Program

1373

APPENDIX E

SHPO CORRESPONDENCE AND PHASE IA/IB ARCHEOLOGICAL INVESTIGATION

CRIS Cultural Resource Information System

HOME SUBMIT SEARCH COMMUNICATE

Welcome Guest User | Contact Us | FAQ | Help | Sign Out

Close

View and/or Address a Response

Project 15PR05028: Rotterdam Junction Firehouse Upgrades (1MVCRSG8BWJV)

View Project

Please accept the following information below as the consolidated response from NYS SHPO for the above referenced submission.

Review Responses

Reviewer	Review Type	Response
Daniel Bagrow	Archaeology	In order for SHPO to complete our evaluation of the Archaeological sensitivity of your project, we need further information. Please review the specific information request(s) below and click the Process button to respond to each request.

Information Requests

Process	Status	Reviewer	Review Type	Request Type	Request Entity	Request Item	Request Description
	Processed	Daniel Bagrow	Archaeology	Request a New Attachment, Photo, or Survey for this Consultation Project		Survey	Please submit a Phase 1 Archaeological Survey. It appears that the proposed parking expansion will occur in an area that has not been subjected to prior ground disturbance. As the attachment indicates, areas of prior ground disturbance do not need to be tested.

Attachments

Attachment	Reviewer	Review Type	Type	Name	Description

© 2016 New York State Office of Parks, Recreation & Historic Preservation. All rights reserved.

Version 1.0.20, January 11th, 2016

Submissions Overview (2)

Submissions

Status	Submission	Type	Date Recv	Date Due	Description	Review Summary
Closed	15PR05028.001	Initial	08/14/2015	09/13/2015	Initial Consultation Submission	Larry Moss (Technical Services), Complete Linda Mackey (Survey and Evaluation), Complete Daniel Bagrow (Archaeology), Complete
Closed	15PR05028.002	Requested	11/06/2015	12/06/2015	Please submit a Phase 1 Archaeological Survey. It appears that the proposed parking expansion will occur in an area that has not been subjected to prior ground disturbance. As the attachment indicates, areas of prior ground disturbance do not need to be tested.	Daniel Bagrow (Archaeology), Complete Larry Moss (Technical Services), Complete

August 31, 2015

John Bonafide
Director, Technical Preservation Bureau
Division for Historic Preservation
NYS Office of Parks, Recreation & Historic Preservation
P.O. Box 189 – Peebles Island State Park
Waterford, NY 12188-0189

Re: Section 106 Compliance
Rotterdam Junction Firehouse Upgrades
Rotterdam Junction, Schenectady County, NY

Dear Mr. Bonafide:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the Governor's Office of Storm Recovery (GOSR) is acting under the auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery ("CDBG-DR") funds from the United States Department of Housing and Urban Development ("HUD"). GOSR is the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. GOSR is acting on behalf of HUD in providing the enclosed project information and request for consultation.

GOSR processes environmental reviews for projects funded with HUD CDBG-DR on a case-by-case basis. A consultation request for the project described herein will also be sent to the Tribal Historic Preservation Office for the Delaware Tribe of Indians, Mohawk Nation, Saint Regis Mohawk Tribe, and the Stockbridge-Munsee Community Band of Mohicans. In accordance with Section 101(d)(6)(B) of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470a), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, this letter serves as notification of the proposed action.

Area of Potential Effects: GOSR proposes to fund the application to upgrade the Rotterdam Junction Fire District No. 1 firehouse on property owned by the Town of Rotterdam at 11215 Main Street, Rotterdam Junction, Schenectady County, New York. A map depicting the Area of Potential Effects (APE)

is enclosed with this letter. The APE has been identified as the limits of any ground disturbance associated with construction of the project such as project footprint areas of temporary ground disturbance, laydown areas, storage yards, and worker parking.

Proposed Project Description: Flood waters from Hurricane Irene and Tropical Storm Lee inundated the hamlet of Rotterdam Junction in the Town of Rotterdam, Schenectady County, New York. Residents who had not evacuated were trapped in the hamlet due to flooding on Route 5S and storm damage to the Route 103 Bridge. As a result, the hamlet of Rotterdam Junction was effectively turned into an island surrounded by debris-laden flood waters. At the center of the island, the Rotterdam Junction Fire District No.1 firehouse provided survivors with a safe place for meals, medical treatment, shelter, showers, donations and recovery assistance. The severity of these storms, however, strained the capacity of the fire station and demonstrated a need for improvements to the facility. Therefore, the Town of Rotterdam Junction has applied to GOSR under the NYRCR Program to fund the Rotterdam Junction Firehouse Upgrades project (Proposed Project).

The Proposed Project involves construction of a 2,250 square foot addition consisting of ADA-compliant restrooms (male and female), showers, and storage space to enable the firehouse to serve as a shelter; acquisition and installation of an energy efficient AC system on the roof of the firehouse; acquisition and installation of NFPA 1500 full compliant vehicle exhaust extraction system; expansion of firehouse septic system to support the building addition to accommodate expansion of bathroom facilities for shelter purposes; establishment of power system backup; a 200-square foot addition to the rear of firehouse bay area house to accommodate generator switch gear; an addition to the garage for secure storage of rescue equipment; and construction of equivalent parking areas lost as a result of building expansions.

Commercial properties border the APE on the northwest and northeast. A wooded area adjacent to a railroad right-of way borders the APE on the southwest and the area to the southeast is a maintained grassy area surrounded by a narrow fringe of woody growth. The Natural Resources Conservation Service maps soils at the property as well-drained Howard gravelly silt loam (HrA). According to the New York Cultural Resources Information System (NY CRIS), the nearest recorded archeological sites are approximately 0.4 mile distant from the project area. The nearest property listed or eligible for the National Register of Historic Places (NRHP) is the New York State Barge Canal Historic District, located to the east and north, which at the minimum is approximately 0.3 mile distant.

The purpose of this letter is to initiate consultation pursuant to Section 106 of the National Historic Preservation Act (NHPA) per the implementing regulations at 36 Code of Federal Regulations (CFR) Part 800. GOSR respectfully requests your review of the proposed project described herein. If the APE encompasses historic properties of religious or cultural significance, please respond within 15 days or sooner. Please respond by email or in writing to the address listed below.

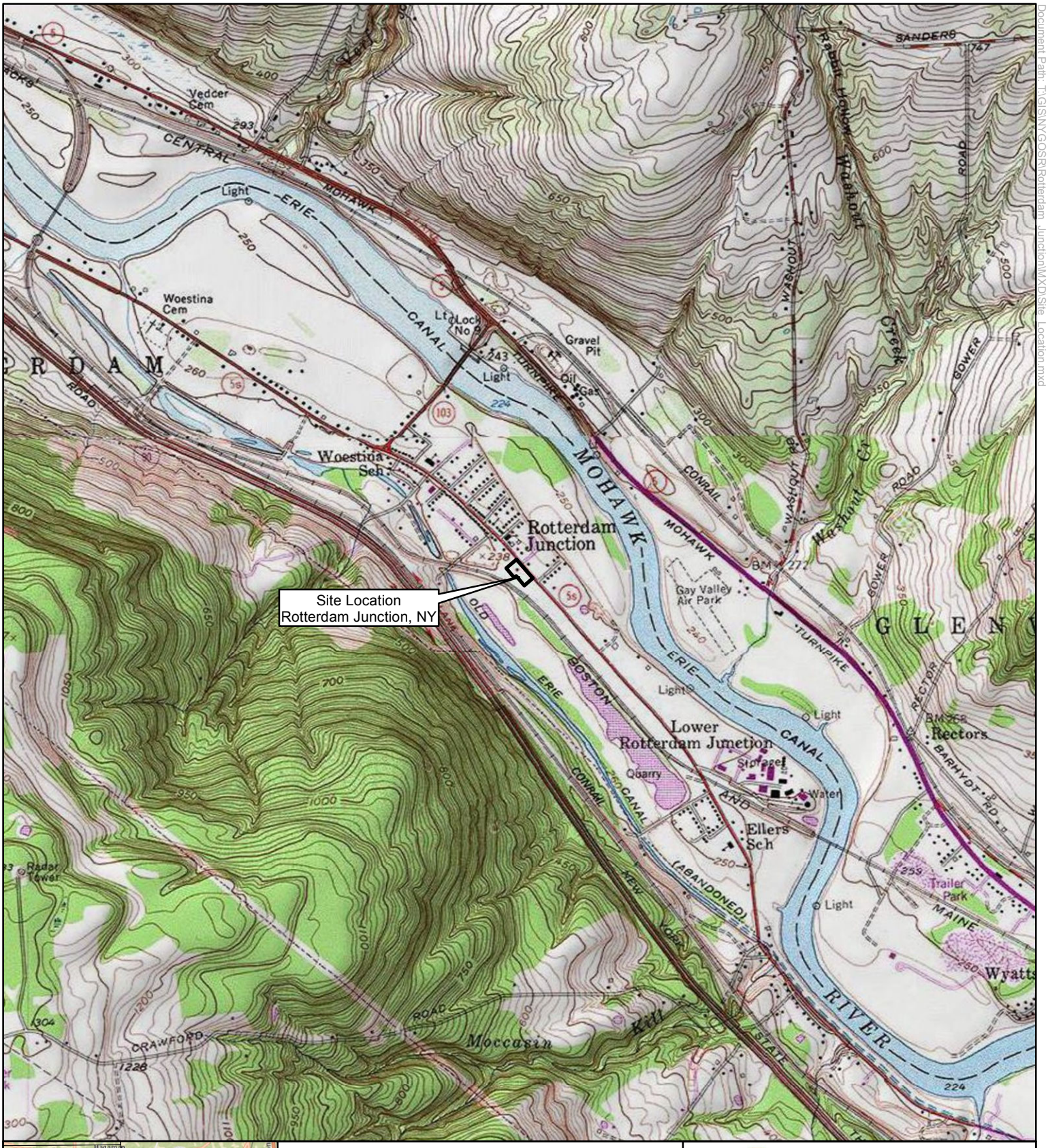
Mr. Thomas King
Director – Bureau of Environmental Review and Assessment Interim
Assistant General Counsel
Governor's Office of Storm Recovery
99 Washington Avenue Suite 1224
Albany, New York 12260
Office: (518) 473-0015

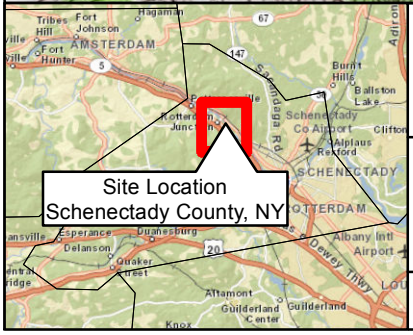
If you have any questions or require additional information regarding this request, please feel free to contact me at (646) 417-4660 or via email at Thomas.King@stormrecovery.ny.gov. Thank you for your time and consideration.

Sincerely,

Thomas J. King
Assistant General Counsel and Certifying Officer

Enclosures:
Project Location Map
Area of Potential Effects Map
SHP Schematic Drawings





Legend

Property Boundary

0 0.25 0.5 Miles

USGS 7.5 Minute Topographic Quad: Rotterdam Junction, NY 1980

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom,

NY RISING COMMUNITIES

TETRA TECH

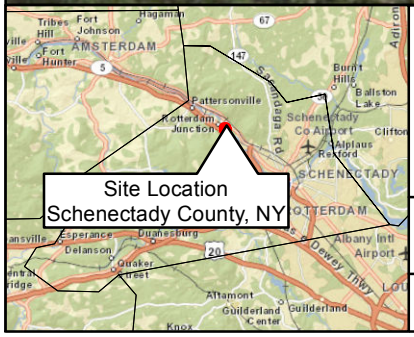
Rotterdam Junction
Firehouse Upgrades

Site Location

1215 Main Street
Rotterdam, NY 12150

Document Path: T:\GIS\NYGOSR\Rotterdam_Junction\MXD\Site_Location.mxd

Notes:
1. APE equals limits of any ground disturbance associated with construction of the project such as project footprint areas of temporary ground disturbance, laydown areas, storage yards, and worker parking.



Legend

Property Boundary

Area of Potential Effect

0 50 100 200 Feet

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and

NY RISING COMMUNITIES

TETRA TECH

Rotterdam Junction
Firehouse Upgrades

Area of Potential Effect

1215 Main Street
Rotterdam, NY 12150

Document Path: T:\GIS\NYGOSR\Rotterdam_Junction\MXD\Area_of_Potential_Effect.mxd

TECTONIC
Practical Solutions, Exceptional Service

CORPORATE OFFICE
Mountainville, NY (800) 829-6531

PO Box 37, 70 Pleasant Hill Road
Mountainville, NY 10953

(845) 534-5959 FAX: (845) 534-5999
www.tectonicengineering.com

PHASE IA/IB ARCHAEOLOGICAL INVESTIGATION

ROTTERDAM JUNCTION FIREHOUSE UPGRADES, ROTTERDAM JUNCTION, SCENECTADY COUNTY, NEW YORK

October 2015

Tectonic Engineering and Surveying Consultants, P.C.
70 Pleasant Hill Road
Mountainville, New York

PLANNING, ENGINEERING, CONSTRUCTION AND PROGRAM MANAGEMENT

An Equal Opportunity Employer

Phase IA/IB Archeological Investigation: Rotterdam Junction Firehouse Upgrades

MANAGEMENT SUMMARY

This report presents the findings of a Phase I Archeological Survey conducted on behalf of the Town of Rotterdam Junction (Subrecipient) for the Rotterdam Junction Firehouse Upgrades project in Rotterdam Junction, Schenectady County, New York. The Governor's Office of Storm Recovery (GOSR), operating under auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation, is the Responsible Entity for direct administration of the U.S. Dept. of Housing & Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) funds. The project is part of the New York Rising Community Reconstruction Program and is receiving funding to enhance the Rotterdam Junction Firehouse facilities and grounds to strengthen disaster response, including the installation of a power system back-up; addition to rear of firehouse bay area; addition to Main Hall including parking lot expansion; expansion of the septic system; addition to the garage; and interior renovations and exterior upgrades of the firehouse. The capacity of the firehouse was compromised during Hurricane Irene and Tropical Storm Lee due to the lack of space and supplies. The results of the Phase IA background and literature search suggest that the proposed Project Area (PA) has a low sensitivity for precontact and historic cultural resources. According to the results of the Phase IB field investigation, significant cultural resources do not exist within the Project Area. Therefore, Tectonic Engineering & Surveying Consultants, P.C. (Tectonic) and STRATA Cultural Resource Management, LLC (STRATA) recommend no further investigation.

Involved Agencies: GOSR; NYSHPO; New York State Department of Environmental Conservation (NYSDEC); U.S. Fish and Wildlife Service (USFWS); Dormitory Authority of the State of New York; Schenectady County Department of Public Health Services; Schenectady County Department of Economic Development and Planning; Schenectady County Department of Emergency Management, Rotterdam Fire District 1, and the Town of Rotterdam

Phase of Survey: Phase I

Project Name and Location:
Name and ID#: Rotterdam Junction Firehouse Upgrades
Location: 1215 Main Street
Minor Civil Division: Town of Rotterdam Junction
County: Schenectady County

Survey Area: 0.5 ac (0.13 ha)

USGS 7.5 Minute Quadrangle Map: Amsterdam, NY (1990) (**Map 1**)

Archeological Survey Overview
Number & Interval of Shovel Test Pits: 3 STPs at various intervals.
Depth of Shovel Test Pits: 16 to 28 inches (40 to 70 cm) within 20th century fill.

Results of Archeological Survey
Number & name of prehistoric sites identified: None
Number & name of historic sites identified: None
Number & name of sites recommended for Phase II/Avoidance: None

Results of Architectural Survey
Number of historic buildings/structures/cemeteries within project area: None
Number of historic buildings/structures/cemeteries adjacent to project area: None
Number of previously determined NR listed or eligible buildings/ structures/ cemeteries/ districts: None

Report Author(s): STRATA Cultural Resource Management, LLC
Date of Report: October 16, 2015

PHASE IA ARCHEOLOGICAL SENSITIVITY ASSESSMENT

PROJECT INFORMATION

The Property is located at 1215 Main Street, Rotterdam Junction, New York (**Photo 1**). The Rotterdam Junction Firehouse functioned as an emergency operations center during Hurricane Irene flood mitigation and recovery efforts. Representatives of local, county and state government agencies, as well the American Red Cross and Salvation Army, coordinated their operations from the firehouse. The purpose of this project is to develop the firehouse as a viable emergency center. The following upgrades and improvements are required in order to meet recommended standards of the Federal Mass Care Service Delivery System and Schenectady County Emergency Operations Plan so that the Rotterdam Junction Firehouse can be established as a functional emergency operations center for the Western Mohawk River Valley Region of Schenectady County: installation of a power system back-up; addition to rear of firehouse bay area; addition to Main Hall including parking lot expansion; expansion of the septic system; addition to the garage; and interior renovations and exterior upgrades of the firehouse. The minor upgrades to the existing firehouse occur within areas of prior disturbance related to the construction of the firehouse. The APE is therefore considered to be the area involved with the Main Hall expansion beyond the parking lot to the southeast (*see* **Map 2**).

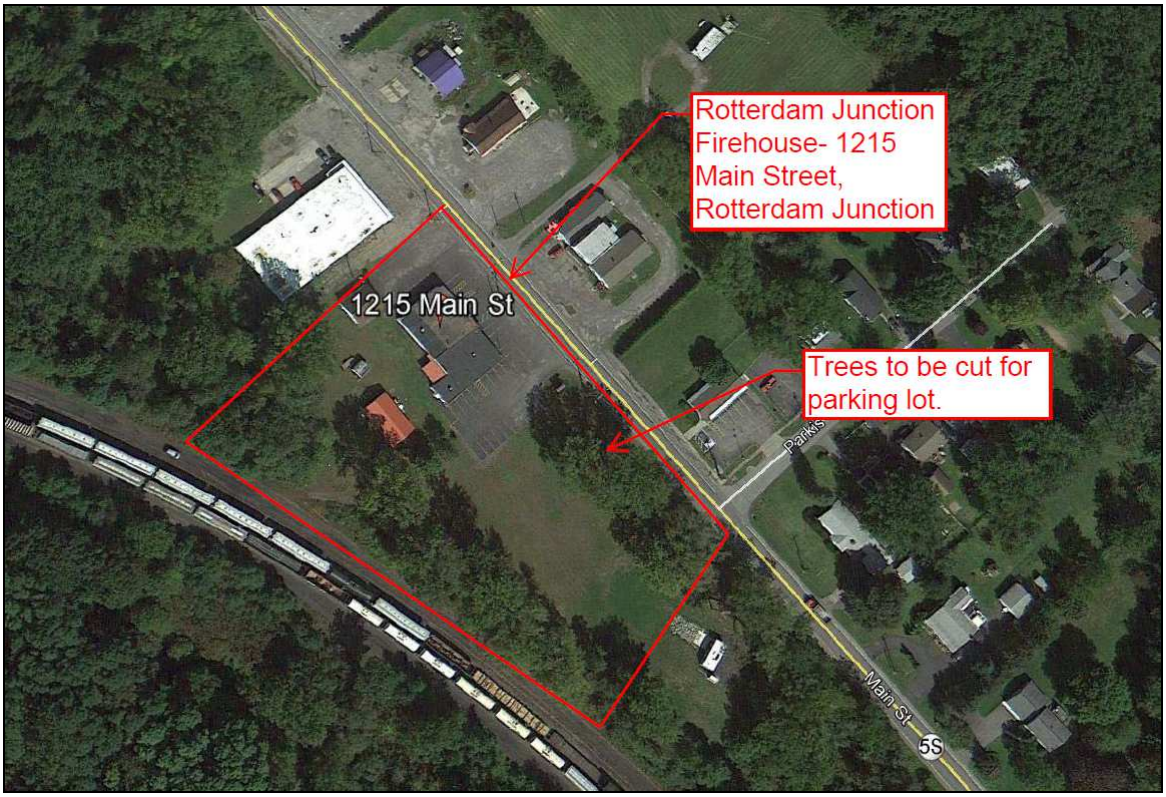
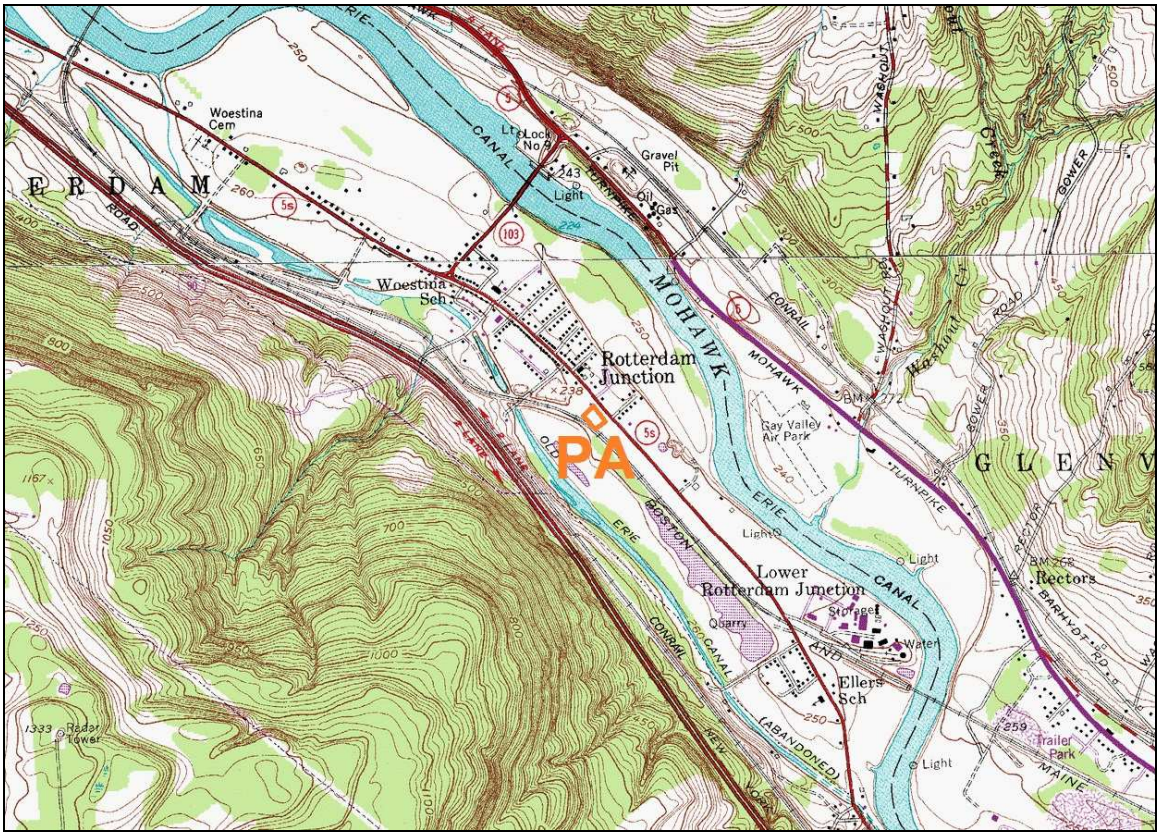
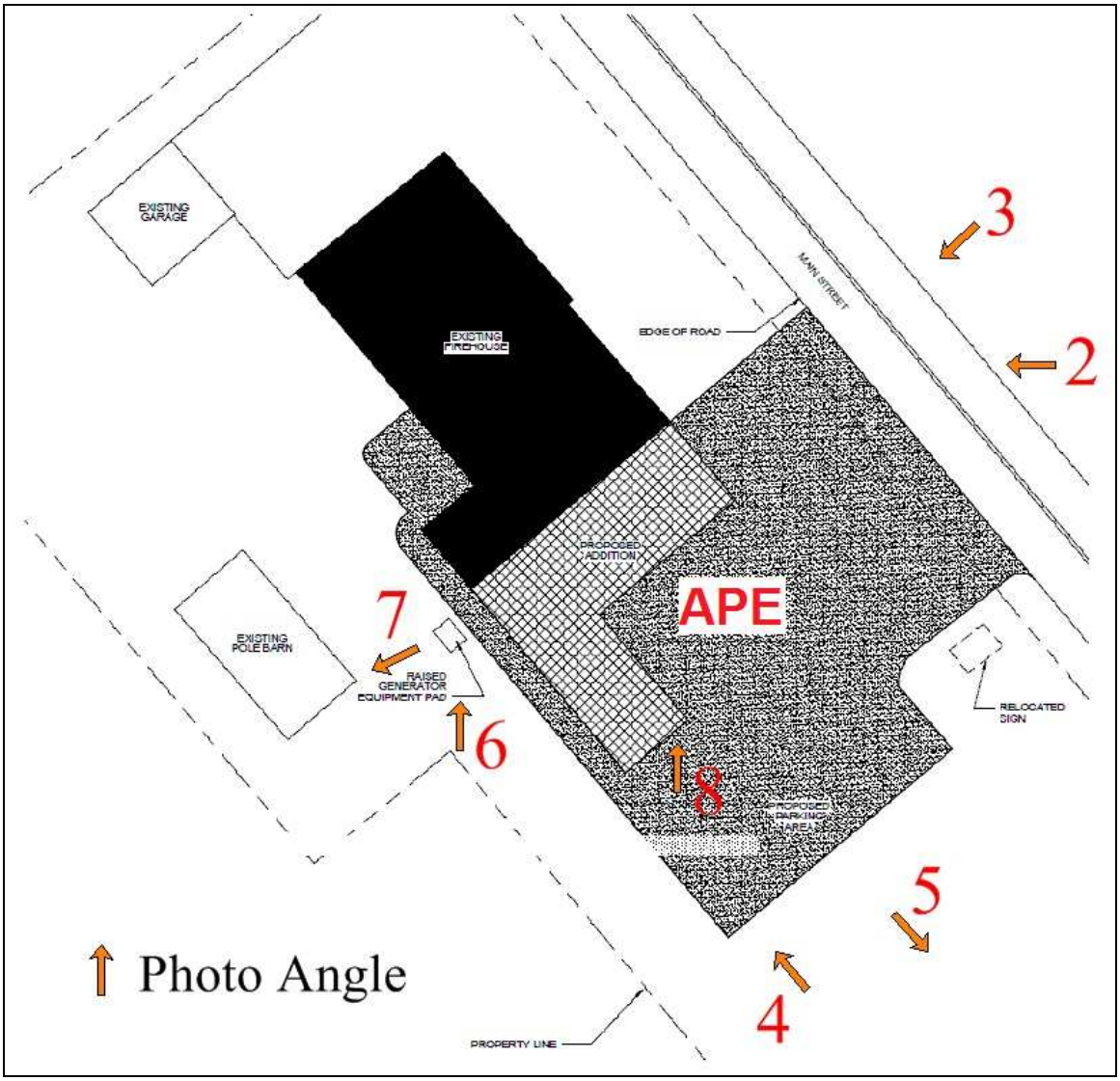


Photo 1: Aerial view of Project Area (Google Earth 2015).



Map 1: USGS 7.5’ Topographic Quadrangle showing location of Project Area.



Map 2: Proposed addition and expanded parking lot showing report photo angles.

Photo 2: View west across Main Street to Rotterdam Junction Firehouse.

Photo 3: View southwest across Main Street toward Rotterdam Junction Firehouse parking lot.

Photo 4: View northwest across proposed new parking lot area with existing parking lot in the distance.

Photo 5: View southeast across Property line toward stormwater swale.

Photo 6: View north of southern corner of firehouse building with "1982" inset in brick façade.

Photo 7: View west of pole barn and gazebo behind firehouse with railroad at rear.

Photo 8: View of soil profile in STP 1 showing 2 feet (60 cm) of black gravelly fill over sterile silt subsoil.

Photo 9: View of corroded metal artifact recovered at 45cm below ground surface in STP 1.

Bedrock and Surficial Geology

The Project Area lies within a peninsular formation of Canajoharie Shale surrounded to the west by the Schenectady Formation of graywacke, sandstone, siltstone and shale. The surficial geology of the Project Area consists of fluvial gravel surrounded by recent alluvial deposits.

Soils and Drainage

Soils within the Project Area consist exclusively of Howard gravelly silt loam (**HrA**) (**Map 3**) (**Table 1**) (USDA 1994).

Map 3: Project Area soils (http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx).

Table 1: Project Area soils (USDA 1994).

Name	Soil Horizon Depth	Color	Texture, Inclusions	Slope %	Drainage	Description
Howard gravelly silt loam soils (**HrA**)	**A** 0-9 in (0-23 cm) **B** 9-19 in (23-48 cm) **C** 19-50 in (48-127 cm) **D** 50-60 in (127-152 cm) **E** 60-64 in (152-163 cm)	V Dk Gr Br Strong Br Dk Br Dk Br Dk Br	Gravelly Silt Loam V. Gr. Sandy Loam V. Gr. Sandy Loam V. Gr. Sandy Loam V. Gr. Loamy Sand	0-3%	Well drained	Glacial outwash terraces and kames

Current Conditions and Previous Disturbance

The Project Area is currently an active firehouse serving the surrounding communities. The area proposed for expansion would occupy the existing parking lot as well as expand onto the grassy area to the southeast. Prior to the construction of the firehouse, the Property was occupied by a much larger railroad switching area with a number of railroad lines crossing the Project Area.

LITERATURE REVIEW

Site File Search

A site file search conducted at the Office of Parks, Recreation and Historic Preservation (OPRHP) identified one New York State Museum (NYSM) site and no OPRHP sites within 500 feet of the Project Area. The NYSM site #6931 is a large A.C. Parker site that covers the entire Mohawk River corridor and is described as "traces of occupation."

National Register Listed and Eligible Properties

There are no National Register Listed or Eligible properties within 500 feet of the Project Area.

Previous surveys

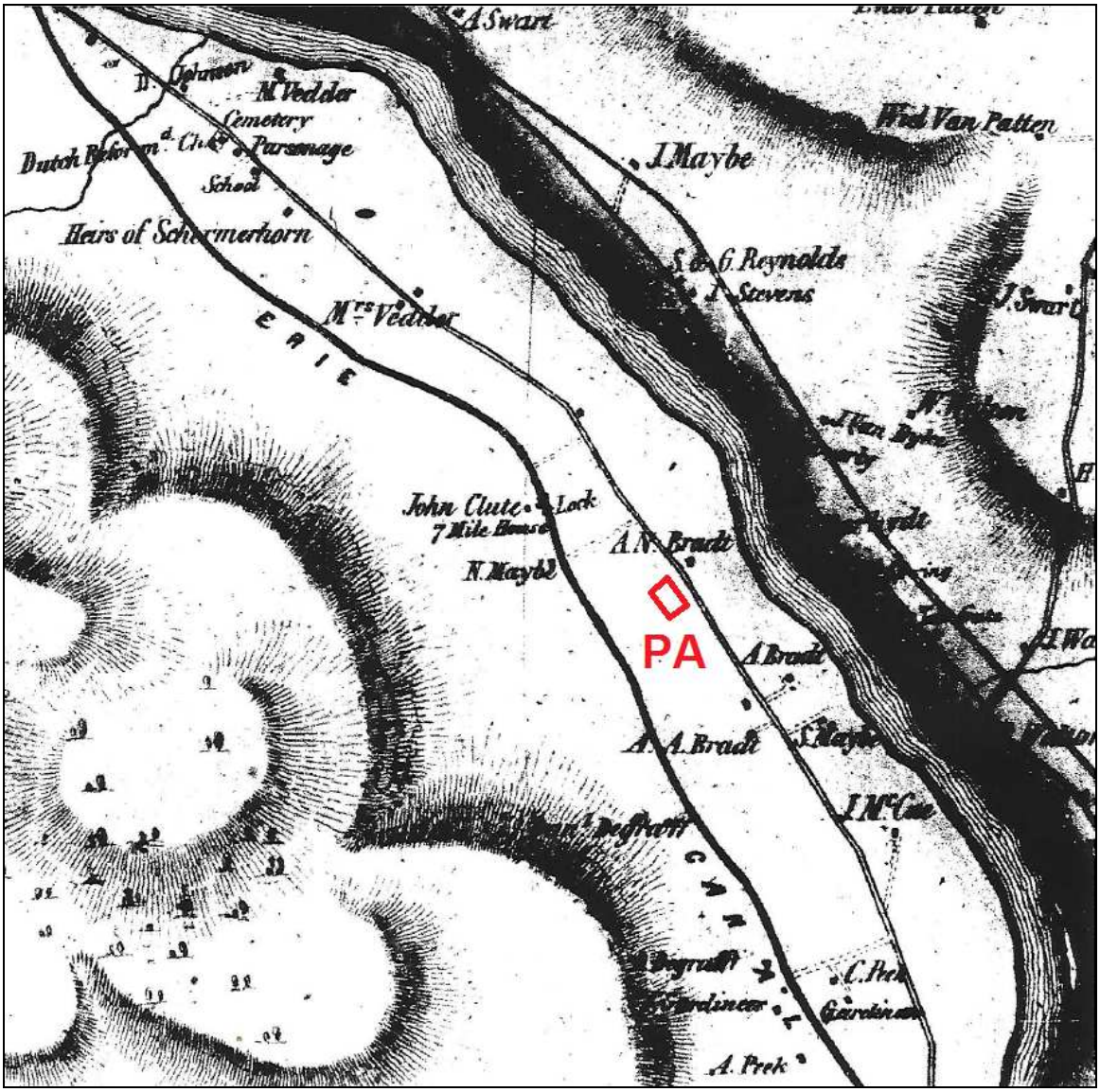
There have been no prior archeological investigations conducted within 500 feet of the Project Area.

Historic Map Review

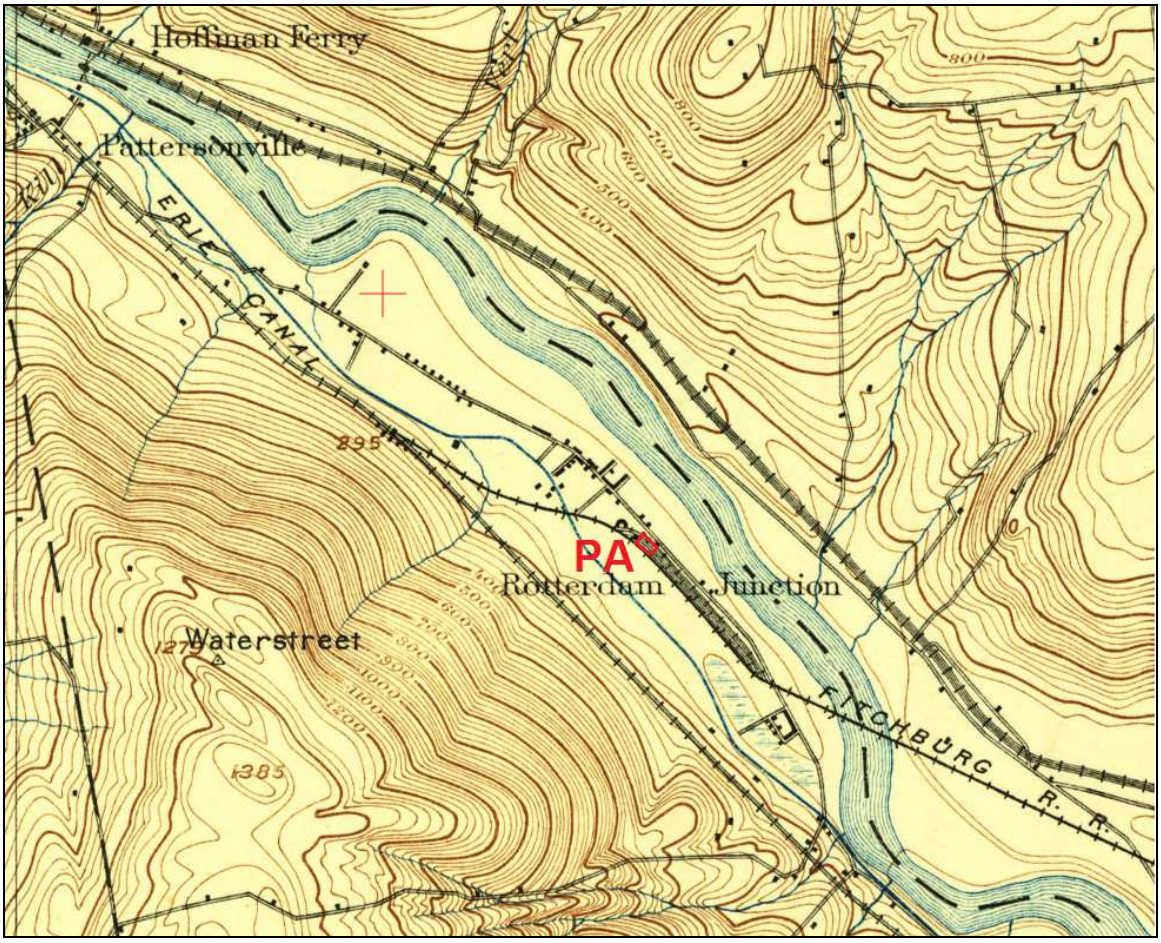
Several historic maps were reviewed to characterize the development of the Project Area. The earliest map from 1856 shows the Project Area adjacent to lands occupied by members of the Brandt family (**Map 4**). To the west is located the Erie Canal, an important transportation route of the day, with a lock and the "7 Mile House" to the northwest.

The second historic map from 1895 shows the Project Area in the midst of a number of railroad lines (**Map 5**). This junction, lying between bridges over the canal and the Mohawk River, gave rise to the name Rotterdam Junction and was responsible for extensive disturbance across the Project Area when the tracks were laid.

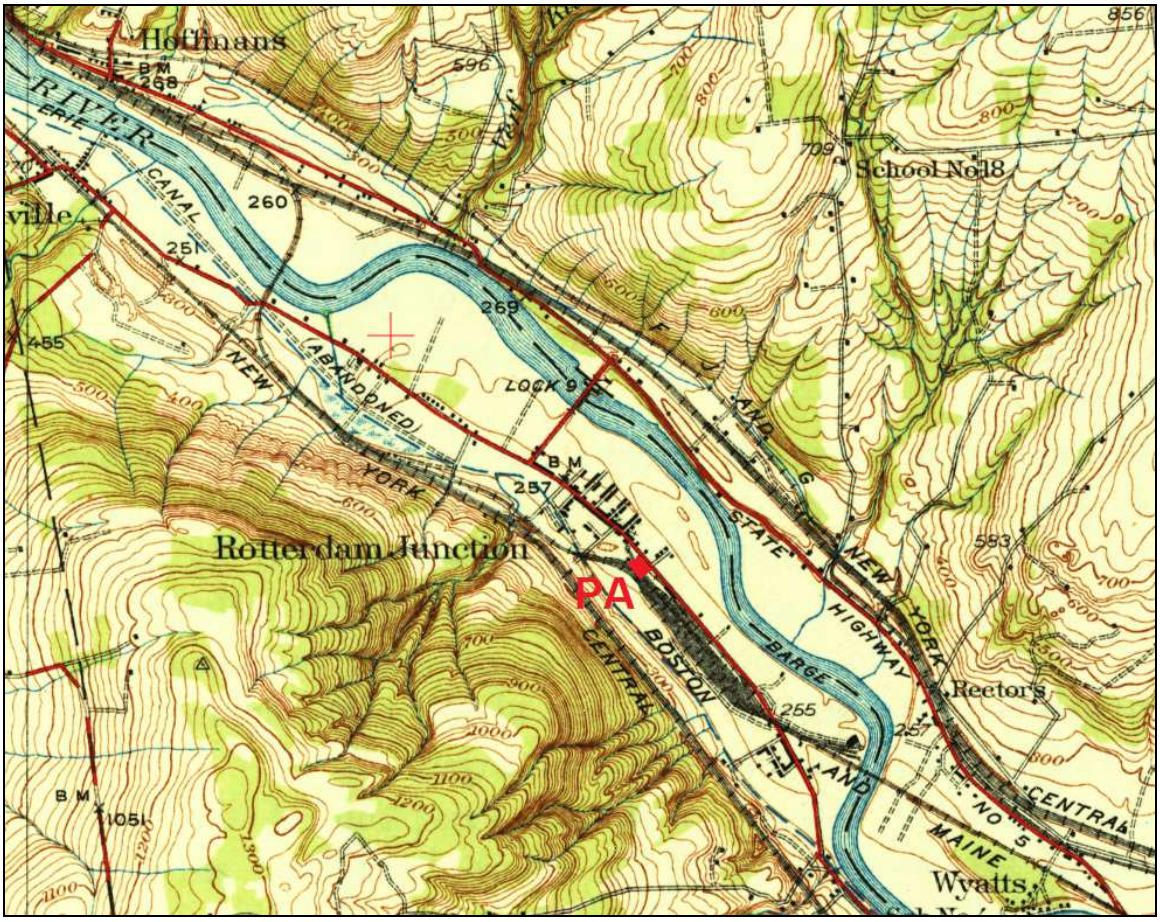
The third map from 1931 shows a larger railyard than depicted in the 1895 map (**Map 6**). The expansion of the railyard likely resulted in additional disturbances to the Project Area as tracks were realigned and reinstalled.



Map 4: 1856 *Map of Schenectady County, New York* (L. Fagan).



Map 5: 1895 USGS Topographic Quadrangle (Amsterdam, NY).



Map 6:1931 USGS Topographic Quadrangle (Amsterdam, NY).

SENSITIVITY ASSESSMENT

Prehistoric Sensitivity

The Project Area is considered to have a low sensitivity for the presence of prehistoric cultural remains. While the location within the narrow Mohawk River valley would suggest a high sensitivity for the presence of precontact cultural resources, the extensive disturbance across the site including cut and fill activities and other impacts associated with the construction, operation and eventual demolition of the railyards have likely erased any traces of prior occupations.

Historic Sensitivity

The Project Area is considered to have low sensitivity for the presence of historic cultural remains. Again, the extensive disturbance from the former railyards have likely erased any traces of prior occupations.

TESTING RECOMMENDATIONS

As a result of the Phase IA background and literature search, subsurface archeological testing was recommended for level portions of the Project Area within the proposed Limits of Disturbance with the exception of areas that are currently under the existing asphalt paving.

PHASE IB FIELD INVESTIGATION

The Phase IB Field Investigation was conducted on September 18, 2015 with a site walkover, visual surface survey and fieldwork within the Project Area by Jim Turner, the Principal Investigator.

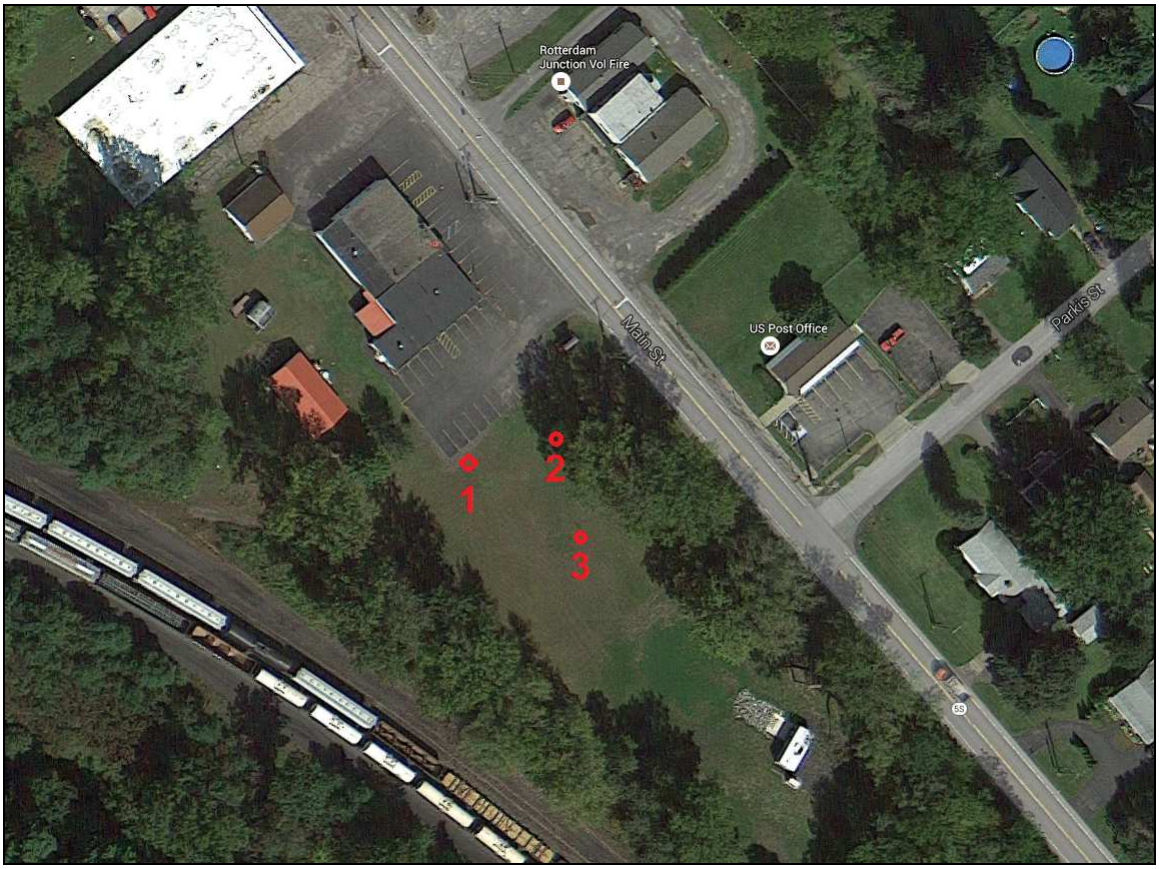
Shovel Testing Results

A total of 3 shovel test pits (STPs) were excavated within the Project Area (**Map 7**). In general, these tests indicate the presence of extensive fill deposits across the Property consisting of a black, gravelly sand most likely related to the former railyards that once occupied this site. The fill material in STP 1 was underlain by a fine clayey silt that did not exhibit a former soil surface suggesting that the former soils had been stripped prior to the placement of the railyard fill. A single corroded metal artifact was recovered from STP 1 at a depth of 45cm below the ground surface and appeared to be part of a turnbuckle or guy wire anchor. A layer of gravel mixed with coal ash and slag was encountered in STP 2 below the surface strata of black gravelly sand. STP 3 confirmed the presence of fill at a distance of 100 feet from the edge of the existing parking lot. (**Table 2**)

No subsurface testing was performed beneath the existing parking lot due to the overburden of pavement. However, the deep fill encountered in STP 1 is expected to characterize the circumstances beneath the existing parking lot. Beyond the existing parking lot, lies the area proposed for the new parking lot. Unlike the building addition, which will have footings down below 4 feet, the proposed new parking lot will involve shallower impacts that will likely not reach depths beyond the existing fill layer.

RECOMMENDATIONS

The Phase IA Literature Review and Sensitivity Assessment indicated a low sensitivity for precontact and historic cultural resources due to prior disturbance related to a former railyard that once occupied this location. The Phase IB Archeological Fieldwork confirmed the presence of railyard fill across the proposed Project Area. No significant cultural resources were identified during the Phase IB fieldwork. Therefore, it is concluded that significant cultural resources do not exist within the Project Area, and no further investigation is recommended.



Map 7: Shovel testing locations within the Project Area.

Table 2: Shovel test results for Phase IB fieldwork.

S.T.P	Depth	Soil Description	Cultural Material	Bags/Notes
1	0-57	Black gravelly sand	Metal artifact at 45cm	Fill
	57-70	Dark yellowish brown fine clayey silt	NCM	Sterile subsoil
2	0-22	Black gravelly sand	Tin can top (discarded)	Fill
	22-45	Gravel with coal ash and slag	NCM	Fill
3	0-40	Black gravelly sand	NCM	Fill

BIBLIOGRAPHY

Fagan, L.
1856 *Map of Schenectady County, New York.*

United States Geographic Survey
1895 Amsterdam 15' Topographic Quadrangle.
1931 Amsterdam 15' Topographic Quadrangle.
1980 Rotterdam Junction 7.5' Topographic Quadrangle.

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

November 30, 2015

Thomas King
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: GOSR/ HTF/ DASNY/ HUD-CDBG-DR
Rotterdam Junction Fire District No. 1 Firehouse Addition
1215 Main Street, Rotterdam Junction/ Schenectady County

15PR05028

Dear Mr. King:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based on this review, the opinion of the SHPO is that there will be No Historic Properties Affected by the proposed undertaking.

If I can be of further assistance, please contact me at (518) 268-2187 or Larry.moss@parks.ny.gov.

Sincerely,

L Moss

Larry K Moss, Historic Preservation Technical Specialist

CC: Chris Borstel, Tetratech
Joseph Fischl, Tetratech
Alicia Shultz

APPENDIX F
TRIBAL
CORRESPONDENCE

Delaware Tribe Historic Preservation Representatives
Department of Anthropology
Gladfelter Hall
Temple University
1115 W. Polett Walk
Philadephia, PA 19122
temple@delawaretribe.org

October 19, 2015
Governor's Office of Storm Recovery
Bureau of Environmental Review and Assessment
Att: Thomas King
99 Washington Ave., Suite 1224
Albany, NY 12260

Re: Section 106 Compliance – Rotterdam Junction Firehouse Upgrades

Mr. King,

Thank you for sending the Delaware Tribe information regarding the above referenced project. Our review indicates that there are no religious or culturally significant sites within this area due to disturbance. We have no objection to the project.

We ask that in the event that a concentration of artifacts and/or in the unlikely event any human remains are accidentally unearthed during the course of the project that all work is halted until the Delaware Tribe of Indians is informed of the inadvertent discovery and a qualified archaeologist can evaluate the find.

We appreciate your cooperation and look forward to working together on our shared interests in preserving Delaware cultural heritage. If you have any questions, feel free to contact this office by phone at (610) 761-7452 or by e-mail at temple@delawaretribe.org.

Sincerely,

Susan Bachor
Delaware Tribe Historic Preservation Representative
Department of Anthropology
Gladfelter Hall Rm. 207
1115 W. Polett Walk
Philadephia, PA 19122
temple@delawaretribe.org
610-761-7452

APPENDIX G
SOLE SOURCE AQUIFERS

SCHENECTADY COUNTY INTERMUNICIPAL
WATERSHED RULES AND REGULATIONS BOARD

City of Schenectady • Town of Glenville • Town of Niskayuna • Town of Rotterdam • Village of Scotia

April 12, 2016

Mr. Peter Comenzo
Town Planner
Town of Rotterdam
1100 Sunrise Boulevard
Rotterdam, NY 12306

Re: Proposed Upgrades to Rotterdam Fire District No. 1, 1215 Main Street, Town of Rotterdam, Aquifer Protection Zones 1 and 2

Dear Peter:

The site plan/special use permit application for the proposed upgrades to the Town of Rotterdam Fire District Number 1 has been reviewed. The upgrades involve an approximate 2,250 square foot addition that will include bathrooms, shower, and additional storage that will support use of the fire station as an emergency shelter. The fire station is located in Aquifer Protection Zone I (Wellhead Protection Area) and less than 300 feet from the Rotterdam Junction Water District Number 3 municipal well field.

Based on this review and on discussions with the Fire District representatives, the Governor's Office of Storm Recovery, and the Watershed Board Technical Committee members during our September 28, 2015 Technical Committee meeting, the proposed upgrades are not an allowed use of land in Aquifer Protection Zone I. In Zone I, all land uses and development activities other than those directly associated with the pumping and treatment of public water supplies are prohibited. As such, a variance must be submitted and approved by the Commissioner of the New York State Department of Health (NYSDOH).

The land use, although not related to the production of drinking water, is unlikely to have an impact on the water supply. Furthermore, operation as a fire department and emergency operations center is necessary for the protection of Town of Rotterdam residents. The additional space and upgrades are necessary to fully function as an emergency center for future community-wide emergency events. Based on this, the Schenectady County Intermunicipal Watershed Rules and Regulations Board (Watershed Board) is supportive of the NYSDOH issuing a variance for this project.

Since there will be extensive construction activities during the expansion and rehabilitation, the Watershed Board does however have the following general comments regarding site activities:

Schenectady County Economic Development and Planning Department
Schaffer Heights, 107 Nott Terrace, Suite 303, Schenectady, NY 12308-3170
Phone: (518) 386-2225 • Fax: (518) 382-5539

1) During the construction activities contractors should be aware of potential contaminant sources during the construction phase of the project. Specifically, construction equipment and support vehicles must not be re-fueled on-site;
2) Should a spill occur during the construction activities, measures should be immediately taken to mitigate the spill;
3) In order to immediately address potential spills, all contractors should have appropriate spill response supplies and emergency contact information for the Town of Rotterdam and the NYSDEC Spills Hotline (1-800-457-7362).
4) Considering the sensitive site location (less than 300 feet from the Rotterdam Junction Water District Number 3 well field) and the periodic use of vehicle washing agents and the on-site septic system, we request that facility construction include the placement of "Sensitive Area - Aquifer Recharge Area" placards at appropriate locations throughout the facility. These signs will serve as a reminder to current and future users of the facility of the sensitive location and the importance of the region's groundwater resources

If you have any comments or questions, or require additional information, please do not hesitate to contact me at the Schenectady County Economic Development and Planning Department (386-2225).

Sincerely,

Jason M. Pelton

Jason M. Pelton
Schenectady County Ground Water
Management Planner

ecc: Mr. Ray Gillen, Commissioner, Schenectady County Economic Development and Planning Dept.
Schenectady County Intermunicipal Watershed Rules and Regulations Board Technical Committee Members

D:\\SchenectadyCounty\Projects\Rotterdam\Rotterdam_Junction_FD_Improvement\Letter.ProjectReview.2016-03-30.Fire_Department_Upgrade.doc

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

SEP 1 6 2015

Mr. Thomas J. King
Assistant General Counsel and Certifying Officer
Governor's Office of Storm Recovery
25 Beaver Street
New York, NY 10004

Dear Mr. King:

This is in response to your letter dated August 3, 2015 requesting a Sole Source Aquifer review of the proposed "Rotterdam Junction Firehouse Upgrades" project to be located in Rotterdam Junction, Schenectady County, New York. The project is to receive funding from the U.S. Department of Housing and Urban Development's Community Development Block Grant-Disaster Recovery program. The project is located in the Schenectady-Niskayuna Aquifer System, designated by the Environmental Protection Agency (EPA) as a Sole Source Aquifer on January 14, 1985 (citation 50 FR 2022). Therefore, our review has been conducted in accordance with Section 1424(e) of the Safe Drinking Water Act (SDWA).

The Rotterdam Junction Fire District Firehouse No. 1 occupies a 3.7-acre developed lot located at 1215 Main Street. Adjoining properties include a battery store to the northwest, a railroad right-of-way to the southwest, a residence to the southeast, and the Rotterdam Junction Volunteer Fire Department across River Road to the northeast. Northeast of the Volunteer Fire Department is the Rotterdam Junction Well Field, and farther northeast is the Mohawk River. The site is currently occupied by a firehouse bay, dining hall and kitchen, garage, parking lot and driveway. The site is presently approximately 50 percent impervious.

The proposed project will enhance the Firehouse's capabilities for disaster mitigation, response, and recovery. The proposed project includes the following upgrades and improvements which are required to meet Federal and County recommended standards as a functional emergency operations center for the Western Mohawk River Valley Region of Schenectady County:

- Additions to the main hall which include the construction of a 2,250-square-foot addition consisting of restrooms, showers, and storage space to enable the firehouse to serve as a shelter;
- Improvements to the interior environment of the firehouse which include the acquisition of an energy-efficient AC system and the acquisition and installation of NFPA 1500 full compliant vehicle exhaust extraction system;
- Expansion of the firehouse septic system which will be sized to support the aforementioned expansion of bathroom facilities;

- Establishment of a power system backup which includes the acquisition and installation of a natural gas-powered generator and associated upgrades to the firehouse electrical system;
- A 200-square-foot addition to the rear of firehouse bay area to house the generator switch gear with secure, controlled access and an alarm system;
- Addition to garage for secure storage of rescue equipment; and
- Restoration of parking areas lost as a result of building expansions.

The building is currently served by electricity, water, and natural gas and these utilities will be upgraded as part of the renovation. We understand that, in total, approximately 3,500 square feet of additional space will be constructed at three locations on the existing Rotterdam Junction Fire District No. 1 property. We also understand that any increase in impervious surface area will likely be due to any restoration of parking areas lost as a result of building expansions. We understand that there is currently no stormwater management system in place in the Rotterdam Junction area. Please note that the proposed project will have to address any stormwater quality and quantity control issues when more detailed design plans are developed for the site. In addition, please also note that with respect to stormwater, before commencing construction activity, a project that involves soil disturbance of one or more acres requires coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity. Please follow the New York State Department of Environmental Conservation stormwater guidelines.

With respect to wastewater, we understand that the firehouse has an on-site septic system which will be expanded to support the expansion of bathroom facilities and decontamination area. The information provided states that the regulations pertaining to the expansion of the septic system that apply within the Town of Rotterdam, including Rotterdam Junction, define four protection zones within which different actions/activities are allowed while still protecting the groundwater. Zone I, Wellhead Protection Zone is the most protective. We note that the Rotterdam Junction Firehouse is in Zone I and is approximately 400 feet southwest of public water supply wells for the Town of Rotterdam Water District #3. We understand that the expansion of the on-site septic system will require approval from the municipal authority. Conditions for approval will include an engineering plan, a site-specific soils analysis, verification of the site's percolation rate, and inspection of the site before backfilling. It is our understanding that the sewage generated (as a result of daily operations at the firehouse) after the implementation of the proposed project will remain the same; the purpose of expanding the septic system is to accommodate the increase in sewage during storm events when the firehouse serves as a shelter. It is anticipated that the septic system expansion will decrease the likelihood of overflow during storm events.

Based on the information provided, the project satisfies the requirements of Section 1424(e) of the SDWA. Please be advised that meeting the requirements of 1424(e) does not preclude the need to meet National Environmental Policy Act (NEPA) requirements to address direct, indirect, and cumulative impacts. This review does not constitute a review under Section 309 of the Clean Air Act; EPA therefore reserves the right to review additional environmental documents on this project.

At this time, EPA offers the following additional comments to minimize environmental impacts and create a more sustainable project.

Construction and Demolition:
In light of the possibility that the project could involve a small amount of demolition work, we recommend that, to the maximum extent possible, the applicant is encouraged to utilize local and recycled materials in the construction process and to recycle materials generated onsite (i.e., demolition debris/materials). For more information, please see the following websites:
http://www.epa.gov/wastes/nonhaz/industrial/cd/index.htm
http://www.epa.gov/osw/conserve/imr/index.htm

Typical bid specifications do not address opportunities for recycling, salvage, and building disassembly and materials reuse. Working with recycling facilities and deconstruction operations can lead to improved environmental outcomes and material sales may offset some project costs. Although this is not a residential demolition project, you may still find useful EPA's report and tool, "On the Road to Reuse: Residential Demolition Bid Specification Development Tool" (EPA Report 560K13002). The tool allows the user to anticipate the environmental issues and concerns such that they can be factored into the planning and procurement process. The user is aided in developing contract language for a bid package that instructs contractors on specific technical requirements to achieve improved environmental results in a demolition project. Please refer to: http://www2.epa.gov/large-scale-residential-demolition/road-reuse-residential-demolition-bid-specification-development

Clean Diesel:
Implement diesel controls, cleaner fuel, and cleaner construction practices for on-road and off-road equipment used for transportation, soil movement, or other construction activities, including:

- Strategies and technologies that reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and strict enforcement of idling limits; and
- Use of clean diesel through add-on control technologies like diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.

For more information on diesel emission controls in construction projects, please see:
http://www.northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf

Stormwater:
We emphasize the importance of Low Impact Development (LID) principles such as minimizing effective imperviousness to create site drainage, and the planting of native and non-invasive vegetation on the project site for stormwater management purposes. Other LID practices can include bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. For further information, please see the following website:
http://water.epa.gov/polwaste/green/

Encourage cost-efficient, environmentally friendly landscaping:
EPA's GreenScapes program provides cost-efficient and environmentally friendly solutions for landscaping. For additional information, please see:
http://www.epa.gov/wastes/conserve/tools/greenscapes/index.htm

Energy-Efficiency:
Energy-efficient technologies should be incorporated when possible. Please see the following website: http://www.energystar.gov

Water conservation and efficiency:
Promote water conservation and efficiency through the use of water efficient products and practices. We recommend considering the use of products with the WaterSense label where appropriate. Please refer to the WaterSense website for tips on water efficiency, a WaterSense labeled product search tool, a list of WaterSense Partners, and access to the Water Budget Tool at: http://www.epa.gov/watersense/

In addition to using WaterSense labeled products and certified professionals, there are many water conservation strategies and best management practices that can be used in new construction. Here are some useful links to water conservation information:
http://www.wbdg.org/resources/water_conservation.php
http://www.allianceforwaterefficiency.org/
http://www.wateruseitwisely.com/100-ways-to-conserve/index.php

If you have any questions concerning this matter or would like additional information, please feel free to contact Rajini Ramakrishnan of my staff at (212) 637-3731.

Sincerely yours,

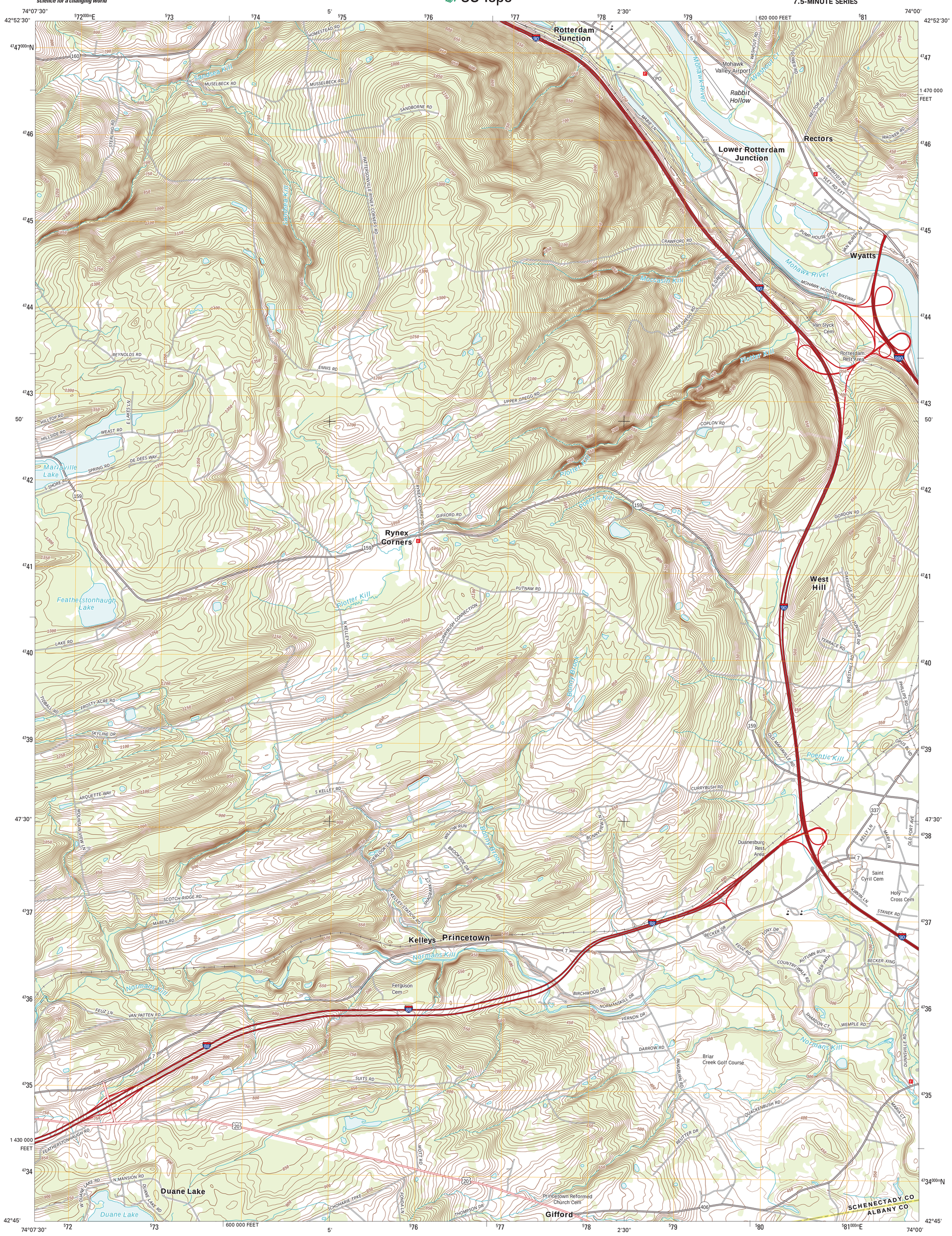
Grace Musumeci, Chief
Environmental Review Section

APPENDIX H
TOPOGRAPHIC MAP

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

The National Map
US Topo

ROTTERDAM JUNCTION QUADRANGLE
NEW YORK
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east zone)

Imagery.....NAIP, July 2011 - October 2011
Roads.....©2006-2012 TomTom
Names.....GNIS, 2012
Hydrography.....National Hydrography Dataset, 2011
Contours.....National Elevation Dataset, 1998
Boundaries.....Census, IBWC, IBC, USGS, 1972 - 2012

MN
13° 38´
243 MILS
GN
0° 38´
11 MILS

UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
WN
Grid Zone Designation
18T

SCALE 1:24 000

KILOMETERS
METERS
MILES
FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

NEW YORK

QUADRANGLE LOCATION

Amsterdam	Pattersonville	Burnt Hills
Duanesburg	Rotterdam Junction	Schenectady
Gallupville	Altamont	Voorheesville

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION

Interstate Route
US Route
Ramp
State Route
Local Road
4WD

Interstate Route
US Route
State Route

ROTTERDAM JUNCTION, NY
2013