

Beebee Station D&R Project

Technical Specification Summary

DIVISION 1 – GENERAL

Section	Topic and Summary
01-1100	<p>Summary of Work</p> <ul style="list-style-type: none">• Generally lays out scope of activities necessary to achieve end state design consisting of complete structure decontamination, demolition and selective site restoration of the Beebee Station Main Plant, Station No. 3 Office Building, various sheds, small outbuildings and utilities (to the extent not required for remaining site operations), including asbestos abatement, characterization and removal of all waste materials, lead-based paint control, PCB equipment removal, hydraulic systems and fuel oil piping removal, abandonment of water intakes, soil and groundwater sample collection, sewer and utility cleanout, and excavation and disposal of limited soils to facilitate demolition, grading / stabilization of slopes, installation of access roads, providing for new stormwater drainage, seeding and security fencing. Requires the contractor to furnish all labor, material, tools, equipment, utilities and other services, and to comply with all applicable laws and requirements, and coordinate with RG&E on matters such as obtaining all requisite permits and approvals, and on community outreach.
01-1150	<p>Measurement and Payment</p> <ul style="list-style-type: none">• Generally provides for work to be carried out based on monthly progress payments based on percentage of work completed for each task as verified by an independent construction manager employed by RG&E (and other on-site monitors). Work will be performed in four phases. Phase I is mobilization, permitting support, insurance and bonding, contract management and support services and preparation of submittals such as work plans and certification of training and experience, initiating needed utilities, site security arrangements, health and safety logistics and ensuring de-energizing of buildings. Phase II is abatement and removal of hazardous or toxic materials from all buildings, such as asbestos, petroleum, organic solvents, PCBs, CFCs (refrigerants), mercury, lead, other metals, universal wastes (ballasts, light tubes, switches), decontamination of structures (sumps, concrete, stains, residues) and dismantlement of boilers and power generation equipment. Phase III is the demolition of decontaminated remaining plant buildings and out-structures, removal or abandonment of power plant intake tunnels,

Section	Topic and Summary
	<p>removal of process and fuel storage tanks, remaining site utilities and water discharge features, and removal of select pavement areas, excavation and staging of soils. Phase IV provides for grading and site restoration, construction of new stormwater drainage, construction of new site utilities, access roads and site security. Activities are to be carried out in a manner that maximizes reuse and recycling of materials, and ensures proper management and off-site disposal of materials that cannot be reused on-site. All work is to be performed in compliance with applicable regulations.</p>
<p>01-1500</p>	<p>Construction Facilities and Temporary Controls</p> <ul style="list-style-type: none"> • This specification sets forth requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection, including personnel and equipment decontamination units, sanitary facilities, temporary site signage, pest control, waste disposal services, construction aids, field offices, barricades and warning lights, temporary utilities, first aid, emergency response coordination and environmental and health and safety protection measures.
<p>01-1540</p>	<p>Site Security</p> <ul style="list-style-type: none"> • Provides for 24/7 security for the work site, stored equipment and materials, work areas, and for access by contractors and third parties. A Security Plan setting out the contractor's means and methods of performing the work as specified and in conformity with all applicable laws and permits (and RG&E's security SOPs) is a required submittal.
<p>01-1569</p>	<p>Environmental Protection</p> <ul style="list-style-type: none"> • Provides for protection of the environmental and natural resources at, and in the vicinity of, the project site, including addressing matters such as control of dust, vapors, odors, noise, solid waste, erosion, sedimentation, management of construction-related waters, etc. as required to protect land, air and water resources during all Contract activities. An Environmental Protection Plan documenting the contractor's means and methods of performing the work and in conformity with all applicable laws and permits (and taking into account protection of land resources, air, surface waters, and groundwaters) is a required submittal.
<p>01-3119</p>	<p>Project Meetings</p> <ul style="list-style-type: none"> • Provides generally for a pre-demolition and abatement conference and organizational meeting, and bi-weekly progress meetings during the project which include the Owner's Project Manager and Construction

Section	Topic and Summary
	Manager in addition to Contractor personnel, and for documentation of such meetings.
01-3300	<p>Submittals</p> <ul style="list-style-type: none"> Provides for administrative submittals and sets forth periods for review and comment on drafts prior to finalization, a schedule of submittals and process through which shop drawings are to be furnished to RG&E and its Construction Manager, how project data will be managed, and for the distribution of copies, field measurements, and documentation of conformance with submittals and technical specifications.
01-3529	<p>Health and Safety</p> <ul style="list-style-type: none"> These specifications establish compliance with applicable federal and state health and safety regulations as a minimum and emphasize safety as being of prime importance to the performance of the work. The Contractor must provide all facilities, equipment, monitoring instruments, material and personnel necessary to protect its personnel from physical injury and adverse health effects from potential hazards at the site or in performance of the work. The Contractor must also establish an organizational structure to provide for experienced management of personnel on the site, including a designated (trained and certified) Health and Safety Manager with specific expertise in asbestos abatement and monitoring, and a Site Health and Safety Officer with training and expertise in personnel protective equipment program implementation and to monitor and enforce day-to-day health and safety protocols in effect at the site, conduct emergency response training and drills, conduct necessary monitoring, provide periodic training, ensure medical reviews, prepare reports and investigate accident/incidents, and verify workers have appropriate worker training. A Health and Safety Plan (HASP) documenting the contractor's means and methods of performing the work and in conformity with all applicable laws and permits (and RG&E's H&S SOPs) is a required submittal. The HASP also includes a Community Protection Plan outlining steps the contractor will implement to protect the safety of the surrounding human population, and a Spill Response Plan – to be coordinated with local officials – that addresses the potential for off-site spills.
01-4100	<p>Regulatory Requirements</p> <ul style="list-style-type: none"> This section sets forth the federal, state and local codes, regulations and industry standards which are incorporated by reference into the technical specifications and sets forth notices, permits, and governmental approvals that must be applied for and received before the start of work. Included

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	<p>is specific discussion of the City of Rochester code requirements including the elements of the demolition permit (including all of the plans incorporated into the permit application), required liability insurance coverages, and changes in infrastructure notifications. Other referenced governmental requirements include NYSDOL, USEPA, NYSDEC, and US Army Corps of Engineers.</p>
01-4216	<p>Definitions</p> <ul style="list-style-type: none"> • This section coalesces into one section 160+ of the key defined terms from throughout the technical specification and Demolition and Remediation Contract for ready reference by the Contractor.
01-4300	<p>Quality Assurance and Quality Control</p> <ul style="list-style-type: none"> • This section outlines the activities, actions and procedures to be performed before, during and after execution of the work to guard against defects and deficiencies in performance of the work, and to verify that abatement, demolition, and remediation complies with all applicable requirements. This section includes testing, inspections, monitoring, and procedures (including those to be done pre-demolition) to identify needed precautions or procedures and to ensure that they comply with specified criteria. A Quality Control Plan documenting the contractor's means and methods of performing the work and in conformity with all applicable laws and permits (and RG&E's SOPs) is a required submittal.
01-5713	<p>Erosion and Sediment Control</p> <ul style="list-style-type: none"> • Generally provides for temporary and permanent run-on, run-off, erosion, slope protection and sediment controls (including constructing diversion swales, silt fences, erosion fabric, straw bale dikes, check dams, erosion control blankets, vegetation and other sediment controls, and their removal after demolition). A Stormwater Pollution Prevent Plan (SWPPP) documenting the contractor's means and methods of performing the work in accordance with the specifications and in conformity with all applicable laws, regulations, permits and RG&E's SOPs is a required submittal. The Contractor must have a qualified professional (e.g., NYS licensed Professional Engineer, Licensed Landscape Architect or Certified Professional in Erosion and Sediment Control) assess the site prior to commencement of work and certify in an inspection report that the appropriate erosion and sediment controls described in the SWPPP have been installed and implemented and are working to protect the site.

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01-5715	<p>Emergency Spill Control</p> <ul style="list-style-type: none"> Provides for the means, methods and facilities the Contractor will use to prevent Contractor-generated spills and to avoid any project-related contamination of soil, surface water, groundwater, atmosphere, structures, equipment, or materials. A comprehensive Emergency Spill Control Plan documenting the contractor's means and methods of performing the work in accordance with the specifications and in conformity with all applicable laws, regulations, permits and RG&E's SOPs is a required submittal. Contractor must report (to RG&E, who will report to governmental authorities as required) any spills that do occur and Contractor must take immediate measures properly and lawfully to control and contain the spill and clean up any spilled material and any materials contaminated by a spill.
01-5726	<p>Dust Control</p> <ul style="list-style-type: none"> Provides for controlling dust and windblown site contaminants that may be generated during the execution of the work, including materials that may be tracked onto roadways (on- and off-site) as a result of the Contractor's operations. A Dust and Windblown Site Contaminant Control Plan documenting the contractor's means and methods of performing the work in accordance with the specifications and in conformity with all applicable laws, regulations, permits and RG&E's SOPs is a required submittal. This plan must address how the creation and dispersion of dust will be minimized and controlled, and must address all major construction activities having the potential to generate such dust. Control measures may include air monitoring (e.g., for particulate matter), moistening of dust generating surfaces, erection of wind barriers, and control of residues.
01-7700	<p>Closeout Procedures</p> <ul style="list-style-type: none"> Provides for final payments to Contractor, required submittals, release of claims and release of bonding following inspection of the project upon final completion, and final adjustment of accounts
01-7839	<p>Project Record Documents</p> <ul style="list-style-type: none"> Specifies administrative and procedural requirements for project documents such as shop drawings, submitted data, daily logs, tailboard safety meetings, personnel training records, exposure monitoring, chemical analyses, disposal receipts, weigh tickets, manifests, insurance certificates, and the like.

DIVISION 2 - DETAILED TECHNICAL SPECIFICATIONS

Section	Topic and Summary
02-0100	<p>Protection of Existing Facilities</p> <ul style="list-style-type: none"> Identifies the general location of facilities that must be delineated, staked-out, and protected during the performance of the work (includes certain existing operating facilities that are not to be damaged or demolished).
02-2239	<p>Recycled Crushed Materials</p> <ul style="list-style-type: none"> Decontaminated concrete and structural brick must be stockpiled separately from potentially impacted materials, and will be crushed on-site and reused as fill. No refractory brick from boilers or flues, and no stained or contaminated concrete or brick may be used as fill -- all such materials must be disposed of as waste in accordance with the waste disposal specification. Uncontaminated concrete and brick to be used as fill must be crushed to a specified sieve size before use at the site.
02-3324	<p>Vibration Monitoring Requirements</p> <ul style="list-style-type: none"> The Contractor is required to perform a Building Condition Survey (BCS) to assess the baseline condition of nearby buildings, structures and facilities, and to assess background vibration levels (e.g., from pre-existing traffic and other background conditions) prior to commencement of any demolition activities. The BCS will be used to identify threshold and limiting vibrations specific to each utility, building or structure, and will be used for purposes of comparison to post-demolition conditions. During the work, 8 locations will be continuously monitored seismographically (with an alarm if threshold values established by a trained/qualified specialist are exceeded) and the Contractor is directed to stop work and revise operating procedures to eliminate or reduce significant vibrations-causing activities. Other forms of measurement will include crack meters, tilt meters, and inclinometers as well as collection of weather and temperature data. An Instrumentation and Structure Monitoring Work Plan documenting the contractor's means and methods of performing the work in accordance with the specifications and in conformity with all applicable laws, regulations and permits is a required submittal.
02-4116	<p>Exterior Demolition</p> <ul style="list-style-type: none"> Provides for demolition of Beebee Station Main Plant, Station 3 Office Building, various sheds and outbuildings, transformers and pads, settling

	<p>tanks, sumps and pits, miscellaneous site utilities, above ground storage tanks, supports and containment systems, piping, and below ground piping and utilities. References compliance with City of Rochester Building Code, Fire Code and Electrical Code requirements, NYS requirements, OSHA, and other state and federal requirements, and all applicable permit and license requirements. It requires temporary interior and exterior shoring, bracing or structural support to prevent unexpected building collapse during demolition, provides for protection of adjacent walkways, buildings, roadways, etc. from damage due to demolition activities by use of barriers, barricades and other means. Demolition by explosive means is prohibited – all demolition must be by mechanical means, and must be carried out systematically. All levels are to be removed before foundational and below-grade features are removed to depths indicated in project drawings. This specification references other specifications for removal of hazardous building materials (such as asbestos) prior to demolition, and for management and disposal of demolished materials. A Demolition and Removal Work Plan documenting the contractor's means and methods of performing the work in accordance with all applicable laws, regulations, permits and RG&E's SOPs, Building Demolition Plans, and the Schedule of Building Demolition Activities are required submittals. These plans must include the Contractor's assessment of potential hazards that may result from building demolition activities and a plan for safely addressing such hazards, and for eventual site restoration (including cleaning and restoring to pre-work condition any adjacent structures and improvements in the event they receive dust, dirt and debris during demolition).</p>
02-4119	<p>Interior Demolition</p> <ul style="list-style-type: none"> Provides for all interior dismantlement and demolition work in association with the abatement and decontamination of all plant building structures and facilities. The majority of the interior demolition will be required to be performed under containment, and materials that are contaminated with other hazardous materials (lead paint, ash, chemicals, petroleum, metals, PCBs, solvents, etc.) must be drained, purged, removed, collected or decontaminated, and those that cannot be decontaminated must be removed and managed for disposal as contaminated wastes (as set forth in other references specifications). An Interior Demolition and Removal Work Plan documenting the contractor's means and methods of performing the work in accordance with the specifications and in conformity with all applicable laws, regulations, permits and RG&E's SOPs, Interior Demolition Plan, and a Schedule of Interior Demolition Activities are required submittals. These plans must provide for: safe use of techniques such as burning and welding and use of rigging; pollution and dust controls; matters such as debris pile minimization, truck tarping and truck washing, limits debris

	drop distances, prevent container leakage, and ensure proper disposal of all materials. Use of explosives is prohibited.
02-5100	<p>Building Decontamination</p> <ul style="list-style-type: none"> This section provides acceptable methodologies and sequences that may be implemented during the decontamination of buildings and facilities at the site, and specifies that all surfaces and equipment must be cleaned/decontaminated (including oil-stained concrete, plenums, process vessels, brick surfaces, walls, equipment, etc.), liquids that must be removed, etc. The Contractor is specifically cautioned about preventing ignition sources in proximity to coal dust areas, and provided an outline of acceptable procedures for waste classification and handling, washing procedures, access to confined spaces, addressing biological (animal feces) hazards and the like. A Building Decontamination Plan documenting the contractor's means and methods of performing the work in accordance with the specifications and in conformity with all applicable laws, regulations, permits and RG&E's SOPs is a required submittal.
02-5120	<p>Hydraulic, Fuel Oil, and Waste Oil Systems Removal</p> <ul style="list-style-type: none"> Provides procedures for decommissioning and removing hydraulic systems and fuel oil/waste oil systems, and for limiting occupational and environmental exposures when closing/removing such systems. It describes how to prepare such systems for removal (shut-down, lock-out, removal of liquids, reservoirs, pits/sumps and piping) in a safe manner, discusses oil recovery and management, prevention of spills during the work, management of waste materials and performance of excavation in the vicinity of such systems. It also establishes procedures for notification of RG&E in the event historical spills associated with these site features are detected. Work Plans prepared under other specifications must contain a section specific to this type of equipment.
02-5140	<p>Sewer and Utility Cleanout and Abandonment</p> <ul style="list-style-type: none"> Provides for Contractor to furnish all labor, equipment, material and procedures required to drain, purge, clean, seal and remove all facility utilities, including building sewers, troughs, sumps, pits, traps, discharges and floor drain systems. These procedures include damage prevention, decontamination, waste disposal (including decontamination waters), and dealing with special conditions, such as obstructions. Work Plans prepared under other specifications must contain a section specific to this type of equipment.
02-6100	Excavation of Contaminated Soil

	<ul style="list-style-type: none"> Describes the minimum requirements for handling, transportation and disposal of contaminated soil materials if encountered during excavation of building structures / foundations to 3' below grade. Generally, soil that is excavated must be screened for evidence of potential contamination (odor, staining, elevated PID readings). If the soil is from areas where prior testing identified contamination, it must be stockpiled for characterization testing, and management for reuse or disposal in accordance with applicable law. Other soil must be screened and then stockpiled and managed in accordance with the screening results. PCB contaminated soil must be disposed of off-site. A Soil Management Plan documenting the contractor's means and methods of performing the work in accordance with the specifications and in conformity with all applicable laws, regulations, permits and RG&E's SOPs is a required submittal. This specification also provides for safety measures regarding management of soils (including excavation hole security, dewatering, backfilling, and PPE), and disposal.
02-6110	<p>Earthwork, Backfilling, and Drainage</p> <ul style="list-style-type: none"> Pertains to requirements for backfilling, grading, drainage control and final site conditions for the project after demolition of structures and removal of excavated soils and concrete foundations as detailed in other specifications. It provides for backfilling to achieve finish grading, and for bedding for reconfigured utilities, sub-base and base-course for roadways, and topsoil layers to provide for seeding and re-vegetation. The specification establishes requirements for stable final slopes and grades, calling for smooth transitions to with adjacent existing grades.
02-7100	<p>Water Treatment System</p> <ul style="list-style-type: none"> Contractor is required to provide and operate a water treatment system for collecting, treating and discharging all water removed from excavations, pits, sumps, basins, basements, trenches, asbestos abatement, waters from building decontamination, and demolition work. This specification includes sludges and solids from dewatering and other activities being placed in containers for characterization and disposal. It also specifies a site-dedicated mobile tanker to transport waste water to a waste water treatment facility, and a pretreatment storage tank with filtration. These systems may be operated only after a NYS Licensed Engineer has inspected and certified them.
02-8100	<p>Waste Characterization, Removal, and Disposal</p> <ul style="list-style-type: none"> Provides a general outline of expected procedures for the on-site management, characterization, and, if applicable, transportation and disposal off-site, of all contaminated materials, hazardous wastes, and universal wastes generated during the project. These procedures must be

	<p>in strict conformity with applicable local, state and federal regulations and RG&E policies and procedures. The Contractor must supply RG&E's Construction Manager with information on the permits/licenses, insurance, compliance history and financial assurance for all proposed beneficial use, recovery, recycling, transporter/haulers, landfills, incinerators or other disposal facilities. The Contractor's Work Plan must outline its detailed methods and procedures for addressing all waste streams generated during the project, including documenting the contractor's means and methods of performing the work in accordance with the specifications and in conformity with all applicable laws, regulations, permits and RG&E's SOPs is a required submittal. The Plan must also include a Spill Contingency Plan and site-specific HASP (as detailed elsewhere) as well as provide for training and identifying the minimum acceptable level of expertise of personnel, appropriate security measures and procedures for analysis of materials.</p>
02-8120	<p>Removal of Chlorinated Fluorocarbons</p> <ul style="list-style-type: none"> • This specification is similar to other waste management specifications but is focused on refrigerant recycling requirements and equipment / system evacuation and certification.
02-8130	<p>Removal and Disposal of Heavy Metals Containing Material</p> <ul style="list-style-type: none"> • This specification is similar to other waste management specifications but is focused on heavy metals that may be inherent in certain building decontamination or demolition waste materials (e.g., ash, coal dust, refractory brick, general dust, residues and debris that has come into contact with coal dust or ash, and decontamination waters, as well as boilers, turbines, precipitators, flues, duct work, coal handling equipment, etc.). This specification also includes engineering controls to reduce metals exposure, and specific worker protection requirements, including respiratory protection for lead in construction and airborne exposure assessment with medical surveillance. Also, this specification mandates the Contractor to take all necessary actions to ensure that materials do not reach adjacent areas or the environment, and requires it to clean up any affected areas.
02-8213	<p>Asbestos Abatement</p> <ul style="list-style-type: none"> • The ACM specification recognizes the pervasive presence of ACM as an existing site condition and sets forth estimated quantities and locations of such materials based on existing surveys developed prior to and as part of the RFP process. The Contractor must verify the location and quantities of materials and take all steps necessary for complete removal of these materials prior to demolition in full compliance with all applicable regulatory requirements, including Code Rule 56, requirements of any

	permits/variances, and various industry standards and guidance documents for controlling asbestos. Contractor must provide properly licensed and certified abatement personnel, appropriate enclosure/containment and decontamination, work area entry/exit procedures, negative air pressure filtration, waste management and disposal procedures. The Contractor must submit a pre-work abatement progress schedule with completion dates for each work area, building or phase, and supply all required project documentation (including evidence of project monitoring, air sampling, and achievement of clearance criteria), PPE, medical monitoring, emergency procedures, and for independent project supervision.
02-8300	<p>Lead Management</p> <ul style="list-style-type: none"> This specification is similar to other hazard management specifications but is focused on potential lead exposures resulting from lead-based paint that could be encountered on surface coatings and underlying substrates that will be disturbed during decontamination or demolition activities. This specification includes worker protection, exposure assessment, personal air monitoring, medical surveillance, written program, respiratory protection and engineering controls to reduce the potential for lead exposures, and disposal procedures.
02-8400	<p>Removal of PCB-Bearing Materials</p> <ul style="list-style-type: none"> This specification is similar to other waste management specifications but is focused on materials that may contain PCBs.
02-8600	<p>Removal of Drummed Waste and Decontamination Water</p> <ul style="list-style-type: none"> This specification is similar to other waste management specifications but is focused on materials that require management in drums or involve waters generated during decontamination activities. It includes a requirement for secure storage of such materials on-site prior to off-site transportation and disposal.

DIVISION 3 – CONCRETE

Section	Topic and Summary
03-3000	<p>Cast-in-Place Concrete</p> <ul style="list-style-type: none"> This specification provides for cast-in-place concrete (including formwork, reinforcement, concrete materials, mixture design, placement procedures and finishes) that will be used to plug

	tunnels, structures, facilities, openings in walls or to maintain slope stability. It generally adheres to applicable ASTM industry standards spanning requirements from levels of permissible recycled content, hydraulic cements, curing requirements, vapor control, steel reinforcement, water stops and allowable admixtures.
03-3600	Concrete Repair <ul style="list-style-type: none"> This specification is similar to other concrete specifications but is focused on procedures for repair of damaged, delaminated, or spalled concrete at existing walls, structures or facilities designated to remain.
03-3714	Shotcrete – Sculpted and Stained Shotcrete Facing <ul style="list-style-type: none"> This specification is similar to other concrete specifications but is focused on constructing a simulated rock finish wall to be applied over the face of existing deteriorated walls that are designated to remain and over any existing rock face that requires stability measures.

DIVISION 31 – EARTHWORK

Section	Topic and Summary
31-2219	Finish Grading <ul style="list-style-type: none"> Provides for preparation of sub-grade and finish grading materials as necessary to achieve the finish grades set forth in project drawings to prepare the site for seeding and re-vegetation.
31-2319	Dewatering <ul style="list-style-type: none"> Allows for dewatering operations or installation of dewatering systems (including shoring and bracing of excavations) as needed to address infiltration of stormwaters, groundwaters, or that may otherwise be present that require removal to permit the work (including repair of damage to adjacent facilities caused by dewatering).
31-2323.33	Flowable Fill <ul style="list-style-type: none"> This specification is similar to other concrete specifications but is focused on procedures for use of cement-stabilized backfill which may be necessary for certain trenches, pipe structures, fill for abandoned water lines or tunnels or where cavities exist that require firm support. This specification includes requirements for placement, curing and protection of such materials, and prohibits use of defective fill (i.e., has excessive

	honeycombing or imbedded debris or fails to meet tolerance requirements).
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DIVISION 32 – EXTERIOR IMPROVEMENTS

Section	Topic and Summary
32-1000	Asphalt Paving <ul style="list-style-type: none"> This specification is similar to other construction specifications but is focused on procedures for hot-mix asphalt paving and pavement marking in areas that will become parking areas or roadways. All such materials must meet manufacturer, ASTM and NYSDOT specifications and cannot be applied in areas where the subgrade is wet, or if rain is imminent or expected before an adequate cure period. Site preparation and surface compaction requirements are included.
32-9200	Seeding <ul style="list-style-type: none"> Provides for application of a wild-life friendly native grass seed mixture and fertilization after top soil has been applied per the Finish Grading specification, with dry application of straw to control moisture and weed growth. Final acceptance occurs once a minimum of 95% coverage has been established.

DIVISION 33 –DRAINAGE STRUCTURES

Section	Topic and Summary
33-0513	Manholes and Structures <ul style="list-style-type: none"> Provides for Contractor to furnish and install at locations shown in plans pre-cast manholes with frames, grates, covers, steps, inverts, and testing as part of the storm drainage utility system.
33-4100	Storm Drainage Utilities <ul style="list-style-type: none"> Provides for Contractor to furnish and install at locations shown in plans sewer pipes, drains and fittings as part of the post-demolition storm drainage utility system.