



**UGA DESIGN & CONSTRUCTION
SUPPLEMENTAL GENERAL REQUIREMENTS & STANDARDS
CHANGES FROM JUNE 15, 2021 VERSION TO JULY 29, 2022 VERSION**

00 00 07 – Design Professional Design Process Requirements

- 1.B. Edited: “There are Division sections which contain additional and more specific design requirements. For example, “Division 23 00 00 – General Mechanical Requirements” includes additional and more specific design requirements related to mechanical.”
- 1.F. Added: “of site-related appurtenances”

00 00 08 – Design Professional Documentation Requirements & Deliverables

- 1.C. Edited: “Minimum Documentation Requirements”

00 00 12 – Client & End User Interface

- 1.A. Added: “or project timeline” three times after “modify the scope of work”

00 00 13 – Designing Learning Environments

- 2.4-5 Added: “(Note: projectors should be located above aiseways to facilitate maintenance access).”

00 73 01 – Sole Source/Sole Brand

- 2.E. Added: “Trash, Litter, and Recycling Receptacles (see Section 12 93 23)
 - i. BigBelly Solar Compacting Waste & Recycling Units #AC-SS-0568
 - ii. Big Belly Solar, LLC (“BigBelly”): 1-978-460-1977”
- 2.A. Added: “Elevators Video Monitoring System (see Section 14 20 00)
 - i. RATH COMMUNICATIONS: 1-800-451-1460, www.rathcommunications.com”
- 2.L. Removed: “L. Irrigation Water Management Controller (see Section 32 84 00)
 - i. DXi Central Control System for Sentinel WMS.
 - ii. Toro: 1-407-321-2901”

01 35 13.02 – Special Project Procedures – Roofing & Hot Work

- 1.C.ii. Edited: “Control of Combustibles” to “Hot Work Permit”

01 41 26.04 – Fire Marshal Construction Inspection Requirements

- 1.E.ix.5. Removed: “(required if fire alarm contractor is not the same as the electrical contractor)”

01 55 19 – Temporary Parking Areas

- 1.B. Added: “Contractor’s forces electing to park on campus are”

01 56 39 – Temporary Tree & Plant Protection

- B.i. Edited: “in or near an area to be planted” to “within the designated limits of a project”
- B.i. Edited: “before bed preparation” to “before construction begins”
- B. Added: “B.vi. Tree Protection Fencing shall be shown on all Demolition Plans and Sediment & Erosion Control Plans throughout every phase of a project”



06 61 00 – Solid Surface Fabrications

- 2.B.v. Added: “a. Basis of design transolid: <http://transolid.com>
- 2.B.vi.b Added: “clear” between “resistant” and “silicon”

07 00 00 – General Thermal & Moisture Protection

- 1.B.i.g. Edited: “The preferred roof material for most new construction is slate or synthetic slate (non-rusticated thin profile). Due to budget constraints asphalt shingles or metal roofs with at least 12-inch panel width may be considered. In some cases, intensive or extensive green roof may be appropriate per approval by the Project Manager and UGA Grounds Department” to “The preferred roof material for most new construction is TPO, asphalt shingles, or metal roof (with at least 12-inch pane width) dependent upon specific project requirements and roof slope. Coordinate roof material selections with UGA PM”

08 10 00 – Doors and Frames

- 2.F.iii.a. Edited: “five-ply veneer face construction, AWI PC5, 1-3/4 inches thickness, Type II or better” to “plastic laminate veneer”
- 2.F.iii.b. Edited: “medium density fiberboard overly (MDO/MDF). Plastic Laminate is also acceptable” to “Plastic laminate”

08 51 13 – Aluminum Windows

- Section deleted in its entirety

08 71 00 – Door Hardware

- 1. Added: “F. On doors with access control system, only one face shall receive keyed cylinder, the other face shall receive a dummy cylinder”
- 2.D.i.a. Added: “9500/2800 Senior Swing Series Operators (Basis of Design)”

08 83 00 – Mirrors

- 1.C.i. Edited: “36-inch by 36-inch” to “dimensions to be determined by Design Professional”

09 00 00.01 – Custodial Storage

- 1.B. Added:
 - “iii. For all buildings **up to 80K sqft**, a separate larger closet from the individual custodial closets is necessary to store additional custodial supplies, laundry, and equipment that does not fit in a standard custodial closet.
 - a. **Requirements:**
 - i. Min sqft 12’ x 12’. Open floor space for larger custodial equipment; depending on floor types plus smaller equipment.
 - ii. Floor sink with hot and cold water with space to hang Spartan Lock n Dial Chemical Dispenser.
 - iii. Adequate space for incoming supplies 8’ x 8’ x 24” of shelving wall units.
 - iv. Room with outside wall necessary for dryer venting.
 - v. Hot and Cold-water source with a drain for washer.
 - vi. 110V outlet for washer.



- vii. 220V outlet for dryer.
 - viii. 4" duct venting for dryer through outside wall."
 - 1.B. Added:
 - "iv. For all buildings **over 80K sqft**, a larger custodial equipment closet is necessary to store additional custodial supplies, large custodial equipment, and laundry equipment.
 - b. **Requirements:**
 - i. Min. sqft 20' x 20'. Open floor space for larger machines and ride-on custodial equipment; depending on floor types plus smaller equipment.
 - ii. Floor sink with hot and cold water with space to hang Spartan Lock n Dial Chemical Dispenser.
 - iii. Adequate space for incoming supplies 8' x 8' x 24" of shelving wall units.
 - iv. Room with outside wall necessary for dryer venting.
 - v. Hot and cold-water source with a drain for washer.
 - vi. 110V outlet for washer.
 - vii. 220V outlet for dryer.
 - viii. 4" duct venting for dryer through the outside wall.

09 60 00 – Flooring

- 2.G. Removed: "in the auditorium"

10 21 13 – Toilet Compartments

- 1.C. Added: "i. Coat hooks shall be mounted to the toilet compartment doors for Housing only"

10 28 00 – Toilet, Bath, and Laundry Accessories

- 2.A.ii.c.Edited: "<http://www.gojo.com/unitedstates/productsearch.aspx?SearchStr=5150-06&ProdID={BB36B071-6C22-4676-BCF8-E64245BA5B8C}>"
to
"<https://www.gojo.com/en/Product/5150-06>"
- 2.D.iii.g. Added: "Project-dependent selection, confirm with Project Manager"

10 44 00 – Fire Protection Specialties

- 1. Added: "C. During renovations, Contractor shall salvage existing fire extinguishers with bar codes and notify the UGA PM. UGA PM shall notify UGA ESD when the bar-coded fire extinguishers are ready for pickup"
- 2.A. Added: "iv. Housing projects only: Fire extinguisher cabinets shall have solid metal doors with no tamper alarms"



11 52 00 – Audio-Visual Equipment

- 2. Added: “C. Housing projects only
 - i. No projectors or screens shall be specified for Housing projects.
 - ii. Design Professional shall consult with Housing end user for specs of the various display sizes typically installed on Housing projects.
 - iii. Design Professional shall consult with Housing for typical in-wall power/data/audiovisual rough-in boxes for display locations”

11 53 13 – Laboratory Fume Hoods

- 1. Added: “H. New fume hoods must be bar-coded by UGA ESD as soon as they are installed so that the bar codes will be used as reference numbers for the ASHRAE 110 tests, TAB, and Commissioning Consultant to use in their respective reports”
- 2.A.iv. Removed: “Although, the use of air curtains are acceptable”
- 1. Added: “I. Fume hood exhaust duct work shall be sloped at 1/8 inch per lineal foot, descending toward the hood”
- 2.A.v.2.e. Edited: “Hood shall be tested to failure in order to identify lowest face velocity at which the hood passes visual local challenge testing” to “Hood shall be tested to failure in order to identify lowest face velocity at which the hood passes visual smoke testing. Face velocity shall be reduced from design face velocity in increments of 10 fpm until failure. Hood failure testing procedure shall include placing boxes inside the hood and assigning an individual to walk past the hood during testing to simulate an “as used” test condition”
- 2.B Edited: “Combination sashes shall be provided when specified by the Project Manager” to “Combination sashes shall be limited in use and provided only when directed by the End User and Project Manager”
- 2.E.i. Added: “(verify if domestic cold water versus process chilled water with UGA PM)”
- 2.E.iv. Added: “(verify with UGA PM)”
- 2.F. Edited: “Natural Gas (verify with UGA PM)” to “Natural gas service in hood may require variance – see 23 11 23 Facility Natural Gas Piping”
- 2.H. Added: “v. For VAV hoods, Phoenix monitors shall be basis of design integrated to BAS” and “vi. For CV hoods, monitors shall be Guardian series when Labconco is basis of design. If another monitor is used, coordinate with the Project Manager”
- 2.M. Edited: “Two-tube, rapid-start fluorescent light fixture of longest practicable length or equivalent LED fixture” to “Two-tube of longest practicable length LED fixture”
- 2.Q.i. Added: “6. Design CFM”
- 3.A.ii.2. Edited: “For all vertical sash positions up to 18” above the work surface, the Face velocity shall be maintained at **60 feet per minute** by automatically modulating the laboratory controls” to “For all vertical sash positions up to 18” above the work surface, the Face velocity shall be maintained at the lowest fpm where it passed ASHRAE down while maintaining a minimum of 60 fpm”

12 93 13 – Bicycle Racks

- 2.B.i. Edited: “Cycloops” to CycLoops”



21 00 00 – General Fire Suppression Requirements

- 1. Added: “F. Where chemicals are used and stored in facilities, coordinate fire protection to ensure compatibility with contents stored (i.e. use of pyrophoric chemicals have a volatile reaction to water)”

22 00 00 – General Plumbing Requirements

- 1.E.ii. Added: “1. Housing only: In multi-floor residence halls with stacked community restrooms, provide isolation valves for each community restroom”

22 07 00 – Plumbing Insulation

- 2.A. Edited “performed” to “pre-formed”

22 11 23 – Facility Natural Gas Piping

- Added new section in it’s entirety:

"1. GENERAL

A. Related sections:

i. 22 00 00 – General Plumbing Requirements

ii. 11 53 13 – Laboratory Fume Hoods

B. For new construction, renovations, and FMD work order requests, natural gas shall not be routed inside of a building without a variance except as listed below. It will not be provided solely for convenience. If a variance is approved, the Design Professional and Contractor shall route the natural gas so that all piping is easily accessible (for example, not encased in concrete slab

i. For an existing building that has natural gas inside the building extending into research laboratories and support spaces, an existing Primary Investigator / Team may request additional extension of natural gas within their existing lab without a variance being required.

For an existing building that has natural gas inside the building extending into research laboratories, if there is a change of Primary Investigator / Team and related users for an existing lab space with natural gas, a variance request will be required.”

22 40 00 –Plumbing Fixtures

- 2.B.ii.b. Added: “Housing Only: Basis of Design”

22 45 00 – Emergency Plumbing Fixtures

- 2.A. Added: “ii. Shower head height shall be at least 8’ AFF”

23 00 00 – General Mechanical Requirements (HVAC)

- 1.C. Added: “xxix. All BACNET points shall be specified and included in the IO summary”
- 1.C. Added: “xxx. For projects that include new or renovation of existing chilled water systems, Design Professional shall provide means of connection for a temporary chiller (valves, flanges, piping, electrical, etc.). Discuss details with UGA PM”
- 1.C.xvii. Edited: “In general, electrical equipment shall not be attached using a screw / bolt attachment through the equipment casing. When conditions do require attachment, attachment shall be made utilizing a stud type bonding fastener with perforated base adhered to the equipment casing with a compatible high strength structural adhesive” to “In



general conduit, junction boxes, gauges, meters, sensors, etc. can be mounted to AHUs using self-tapping screws. Self-tapping screws should be the minimum gauge and length needed to secure items, and shall not penetrate the interior wall of the AHU”

- 1.C.xviii. Added: “welded”
- 1.C.xxviii. Added: “Housekeeping pads with mechanical equipment which has the potential for a leak shall be epoxy coated prior to equipment placement”
- 1.D.iv. Edited: “Access doors / panels shall be hinged, cam-locked (not fixed by screws / bolts), airtight on ducts and AHUs; provide access to all devices with duct probes such as duct static sensors, humidifier manifolds, smoke detector probes, AFMS, etc.” to “Access doors / panels
 - a. For duct and VAV boxes, access doors / panels shall be cam-locked (not fixed by screws/bolts), airtight on ducts.
 - b. For AHUs, access doors / panels shall be hinged, cam-locked (not fixed by screws/bolts), and airtight. Provide access to all devices with duct probes such as duct static sensors, humidifier manifolds, smoke detector probes, AFMS, etc.”
- 1.D.vi. Edited: “shall not be vertical fix to wall” to “compliant with applicable codes”
- 1.E.v. Added: “Depending on project requirements”

23 05 14 – Variable Frequency Drive

- 2.A.i. Added: “or ACH 580”

23 05 19 – Meters & Gauges

- 2.B. Added: “or Veris Accelaber”
- 3.D. Added: “Thermometers and pressure gauges shall be positioned and mounted so that they are easily readable by an observer standing on the floor and in consideration of adjustment of the device when required”

23 05 23 – General-Duty Valves for HVAC Piping

- 2.B. Added: “Valves that have chain operators require the use of a Babbitt bucket as provided in the link: <https://www.babbitt.com/accessories/bucket/>”

23 05 53 – Identification for HVAC Piping Equipment

- 3.C.iii. Added: “c. AHU’s should be provided with the unit number, floor and/or area served, and design CFM”

23 07 19 – HVAC Piping Insulation

- Title. Edited: “HVAC Piping Insulation” to “HVAC Piping and Hydronic Equipment Insulation”
- 2.F. Edited: “Use of flexible closed cell insulation similar to “Armaflex” may be permitted with owner approval at piping at valve clusters, etc., provided no condensation occurs on cold surfaces” to “Chilled water valves, strainers, pete’s plugs, temperature wells, air vents, check valves, and groove pipe couplings shall be insulated with molded insulation fittings. Flexible closed cell insulation may be permitted with UGA PM advanced approval; it shall be field cut and adhered to the dry metal surface provided no condensation occurs on the cold surfaces”



- 2. Added: “G. Cold equipment such as chilled water pumps, air separators, valves, chiller barrels, buffer tanks, etc. shall be insulated with elastomeric insulation of the appropriate thickness to prevent sweating. The insulation shall be adhered to the equipment surface using an approved adhesive and shall be sealed to per the manufacturer’s recommendations provide a proper vapor barrier”
- 3. Added: “D. Cold equipment insulation located outside shall be provided with aluminum jacketing. Cold equipment insulation located inside shall be painted to match the appropriate process color. Refer to Division 23 05 53”

23 09 23 – Building Automation and Temperature Control System (BAS)

- 1.U.ii.h. Removed: “Piping schematics shall be two dimensional to clearly identify service (CHW Supply, CHW Return, CW Supply, CW Return, MP Steam, Pumped Condensate, Make-up, etc.). Display shall use bold colors (rather than shades)”
- 1.U.iii.c. Added: “and MEP as-builts”
- 2. Added: “O. The use of a UPS for controls systems should only be used in critical applications. If it is deemed necessary, one utilizing a hot swappable battery and audible alarm for low battery indication is required”

23 21 13 – Hydronic Piping

- 2.C. Added: “On large air/dirt separators on main distribution piping such as building chilled water, hot water and process water, manual blow downs for dirt shall be hard piped to floor drains”

23 21 23 – Hydronic Pumps

- 3.F. Added: “that are less than 20 HP. Motors 20 HP and greater shall have front and back ceramic bearings, in lieu of an SGR”
- 3. Added: “G. Schedule NPSHr for Condenser water pumps serving cooling towers”
- 3. Added: “H. When selecting variable speed pumps, the designer shall consider pump efficiencies at less than 100% design flow”

23 22 13 – Steam & Condensate Heating Piping

- 2.B. Added: “iii. Steam Gasket
 - a. Basis of Design is Flexitallic: https://flexitallic.com/us/shop/?_product-type_cat=spiral-wound-gasket
 - b. Steam gasket shall be spiral wound 304 stainless steel with graphite filler and a carbon outer ring with a pressure class of no less than 150 lbs.”

23 22 16 – Steam & Condensate Heating Piping Specialties

- 2.M. Added: “iii. Equal to Armstrong Pitbull Sump ejector”
- 2. Added: “O. Steam condensate return units:
 - i. Tanks shall be cast iron and shall be provided with a 20-year warranty”



23 25 00 – HVAC Water Treatment

- B.ii. Edited: “John Mayfield, (404) 558-9695, jmayfiel@nch.com” to “Denny Wenz, (770) 377-6474, bear.wenz@nch.com”

23 31 13 – Metal Ducts

- 1.G. Edited: “utilizing” to “shall minimize the use of”
- 1.G. Edited: “shall not be used” to “When using screws or rivets, seal with mastic to prevent duct leakage. When possible, the use of screws or rivets shall be avoided”

23 52 00 – Heating Boilers

- 3.D. Added: “A buffer tank shall be provided to provide additional system volume if necessary”

23 36 01– VAV Terminal Units

- 2.F. Edited: “Alternatively, terminal units may be double wall with fiberglass insulation in which case internal walls must be solid, not perforated. Discuss with Project Manager.”

23 64 16.16 – Water-Cooled Water Chillers

- 3.B. Added: “Floor drains shall be located at the end of each chiller, and floors shall be sloped to the drains in these locations”

23 65 00 – Cooling Towers

- 2.E. Removed: “Concrete basins shall be sand blasted and pressure cleaned prior to applying bonding agent and coating under required temperature and humidity conditions. All coating processes must be observed by UGA or CxP”
- 2.G.i. Added: “(tower’s motor, gear box, shaft, hot deck, basin, fill media, etc.)”
- 3.C. Edited: “30-inch minimum” to “60-inch minimum”
 - 3.G. Added: “with indicator light”

23 73 00 – Indoor Central-Station Air-Handling Units

- 2.A.xviii. Added: “i. Exterior AHUs above 10000 cfm shall be provided with a vestibule sized large enough to allow for installation of VFDs, control panels, and coil valve assemblies, and allow maintenance workers to enter and perform necessary maintenance activities”

26 00 00 – General Electrical Requirements

- 1.D. Edited: “piping shall be” to “piping shall not be”
- 1.F.iv. Edited: “One-line” to “Electrical One-line”
- 1.F.iv. Added: “switchgears/switchboards”
- 1.F.viii. Edited: “208V” to “208Y/120V”
- 1.F.viii. Added: “For all switchgears, switchboards, or panelboards, all loading between phases shall be designed to be balanced at maximum +/- 10% between any 2 phases”
- 1.F.xi. Edited: “6-inch” to “either 6-inch or 5-inch”
- 1.F. Added: “xvi. For all switchgears, switchboards, or panelboards, al loading between phases shall be designed to be balanced at max. +/- 10% between any two surfaces”



26 05 14 – Medium Voltage Cable Installation – Outside Contractor

- 3.A.vi.k. Removed: “3 inches. For permanent cable, bending / racking the minimum bending radius shall be”
- 3.A.viii.a. Added: “indicating MV circuit # and phase (A, B, or C)”

26 05 19 – Low-Voltage Electrical Power Conductors and Cables

- 2.B.ii. Edited: “MC cables are permitted for final flexible connections to lighting fixtures and fire alarm devices at lengths less than or equal to 6’-0”” to “MC cables are only permitted at lengths of 6’-0” or less and only for use a final connection to light fixtures or fire alarm devices. Additionally, cables shall be properly supported”
- 2.D. Added: “Wire nut connections within motor connection junction boxes are not allowed”

26 05 26 – Grounding & Bonding for Electrical Systems

- 1.C. Added: “10’-0” long x ¾” diameter copper clad steel”
- 1.C. Removed: “It may be a single ground rod depending on the available space to install underground electrodes. This will be decided by the Design Professional in conjunction with the Project Manager”
- 1.C. Edited: “triad” to “ring around the utility transformer pad”
- 1.G. Edited: “One” to “If there is a buried ground ring around the entire building, each”
- 1.K. Edited: “ground” to “equipment grounding conductor”
- 1.L. Edited: “Do not provide” to “Provide”
- 1.L. Added: “, regarding separately derived systems”

26 05 33.13 – Conduit for Electrical Systems

- 2.C. Added: “below 8”
- 2.E. Added: “either 5-inch or 6-inch”
- 2.E. Added: “(confirm with UGA PM)”
- 2.E. Edited: “roads” to “vehicular traffic-rated areas”
- 2.G. Added: “Set-screw fittings are not allowed for conduit connections. As a minimum, EMT and IMC conduits shall have compression connection fittings, and all galvanized rigid steel conduit connections shall be threaded.”

26 05 43 – Underground Ducts & Raceways for Electrical Systems

- 2. Added: “F. All underground duct bank and steam condensate pipe crossings shall be designed and provided with a physical and thermal barrier. See “Electrical Duct Bank Physical / Thermal Barrier detail in section 33 71 19”
- 2.A Edited: “40-Type EB” to 40-Type A or EB”
- 2.A. Added: “If top of duct has to be less than 18-inches below finished grade, the top of the duct bank shall have a minimum of 4-inches of concrete cover”
- 2.B. Edited: “roadways, driveways” to “vehicular traffic-rated areas”
- 2.B. Added: “Rebar shall extend minimum 10’-0” beyond roads at all crossing outer perimeters”
- 2.C. Added: “a minimum of”
- 2.E. Added: “, which will require duct bank concrete to contain a red dye to a concentration that renders the concrete to be visibly red, and not just a faint tint”



26 09 23 – Lighting Control Devices

- 2. Added: “A. All lighting control devices shall be manufactured by Lithonia Lighting Acuity Brands, Lutron, or Wattstopper”

26 09 43.16 – Addressable Fixture Lighting Control

- 2.A.i. Edited: “Douglas” to “Wattstopper”
- 2.A.ii. Added: “Acuity Brands”

26 24 16 – Panelboards

- 1.D. Removed: “service entrance”
- 1.E. Added: “in which”

26 51 00 – Interior Lighting

- 1. Added: “J. Housing Projects only: coordinate with Project Manager and End User for acceptable fixture solutions”
- 1.B Added: “Design Professional shall provide reflected ceiling plan for demolition and new construction drawings for lighting design”
- 1.I. Added: “Interior”

26 56 29 – Site & Building Entry Lighting

- 1.B.ii.a Edited: “fluorescent lighting” to “LED”

27 05 29 – Hangers and Supports for Communications Systems

- 3.D. Added: “For Housing projects only, this maximum spacing is 3-foot on”

32 12 16 – Asphalt Paving

- 1. Added: “E. All manholes, quazite boxes and valve boxes in areas of asphalt will be fit with a rectangular-shaped, reinforced concrete collar; minimum width of collar to be 8" each side, minimum depth of 12". Alignment of collar to run square with curb line or adjacent site features”

32 84 00 – Planting Irrigation

- 2.C.i. Edited: “the Calsense ET2000E Enhanced Water Management Controller in the SSE Heavy – Duty Stainless Steel Cabinet. The Calsense Water Management Controller has sole brand approval. Refer to Section 00 73 01 Approved Sole Source/Sole Brand” to “DXi Central Control System for Sentinel WMS (Conventional Output System) by Toro in Stainless Steel Cabinet”
- 2.C.i. Removed: “a. The ET2000E allows irrigation based on time, Evapo-transpiration rate (ET), and on soil moisture with the ability to integrate moisture sensing and ET-based operations. Cycle & soak watering, twelve-month programming and interactive monthly volume budgets” in its entirety.
- 2.C.i.b. Removed: “Calsense 2000E”
- 2.C.i. Added: “b. See UGA Standard Irrigation Details for additional information”
- 2.C.ii. Removed section in its entirety.



- 2.C.iii. Edited: “Rain Bird DVF or Rain Bird PEB valves shall be used for all zone control valves” to ESP-LX Series Controllers and Rainbird DVF Series Valves. See UGA Standard Irrigation Details for additional information”
- 2.C.iv. Added: “or Hunter I-40 rotors”
- 2.C.v. Edited: “Hunter MP Rotator heads” to “Rain Bird 1800 Series Pop up heads”

32 90 00 – Planting

- A. Added: “i. 01 56 39 – Temporary Tree & Plant Protection”

32 93 00 – Plants

- 1.A. Added: “i. 01 56 39 – Temporary Tree & Plant Protection
- 1.D.iii. Edited: “In general, shrubs, perennials, and groundcovers should be placed a minimum of 2 to 3 feet away from building walls, depending on the species. Plants shall be located far enough away from building walls to allow maintenance personnel to easily access the plants for pruning and to access the building wall itself” to “Design Professional shall develop a Landscape Plan in which a 24" clear space will ultimately exist between mature plants and adjacent buildings or pavements. Plant symbols on Landscape Plan shall reflect the mature diameter of proposed plantings in addition to a 24" clear space between any adjacent building or pavement”

33 00 00 – General Utilities Requirements

- 1.A. Added: “iii. 32 12 16 – Asphalt Paving”

33 30 00 – Sanitary Sewerage Utilities – Sanitary Sewer Collection System

- 1.C. Edited: “Gravel is not acceptable” to “If piping is PVC, gravel is acceptable for other piping materials”

33 60 00 – Hydronic and Steam Energy Utilities

- Added: “A. “Pre-cast” can be considered if the following conditions are met. This is a response to cost concerns.
 - i. Vault structure shall withstand H-20 Loading.
 - ii. Contractor shall submit stamped shop drawings provided by registered (in the state of the project) structural engineer for review.
 - iii. Contractor shall over-excavate for vault and install 12” of No. 57 stone under pre-cast vault.”
- 2.D. Added: “iii. For vaults located in softscape, steel vented tops with hinged door access is preferred. Where located under hardscape, provide steel manhole cover. Discuss with Project Manager”

48 14 00 – Solar Energy Electrical Power Generation Equipment

- Added: New section added in its entirety