



June 10, 2024

**PROJECT: City of Harrisburg
Harrisburg North & South Water Treatment Plants**

ADDENDUM #4

Branch Engineering Inc. Project No. 20-009C



EXPIRES: 12/31/24

The following clarifications and revisions for the above-referenced project are hereby incorporated by addendum to the previously issued bid documents.

Project Manual – Technical Specifications Volume 2: Technical Specification Section 06 41 13 Wood-Veneer-Faced Architectural Cabinets is incorporated into Volume 2 per this addendum, see attached.

Project Manual – Technical Specifications Volume 2: Technical Specification Section 12 36 16 Metal Countertops is incorporated into Volume 2 per this addendum, see attached.

Plans – Sheets A101N & A101S– Revision: The attached plan sheets A101N & A101S supersede the previously issued sheets in their entirety.

Contractor Question – Project specification 43 41 13 Welded Steel Tank, Part 2.4.G.6 calls for the roof vent cover to be fiberglass. Please confirm if aluminum is an acceptable alternative. (T Bailey, Inc.'s roof vents are constructed entirely with aluminum plate, w/ SST expanded metal and SST mesh screen over all standard vented open areas).

Clarification: T Bailey, Inc.'s proposed aluminum roof vent cover is an acceptable alternative to what is specified.

Contractor Question – Drawing sheet R101N & R101S illustrate full perimeter roof handrail for each reservoir. Project specification 43 41 13 Welded Steel Tank, Part 2.4.E.5 calls for the handrail to be around the roof hatch and ladder area. Please clarify to what extent we are to provide and install the handrail on each reservoir.

Clarification: Railing shall be provided around the entire roof perimeter for each reservoir as shown on the drawings.

Contractor Question – C104 – “Water Line Notes”. Is the intent to have bell restraints at every bell along with mega lugs at fittings, or just mega lug restraints at fittings?

Clarification: The required joints restraints are called out in each construction note for required length from fitting that need to be restrained. Please refer to Utility Construction Notes for length from fitting for joints that need to be restrained.

Contractor Question – Is HDPE SDR-11 with fusible flange adapters at each end suitable in lieu of C900 for the 2 wetland crossings?

Clarification: Yes, this is an acceptable alternative.

Contractor Question – A501 detail 13 shows a 2x4 furred wall assembly, what appears to be a plumbing wall. With the 3” drain and vent piping for the water closets running through this wall, should these walls be 2x6? If the toilets and lavatories are wall hung, there will need to be a chase to fit the carriers, approximately 14”.

Clarification: 2x4 furring should be changed to 2x6 furring. Please select a low-profile carrier system that will fit within the 2x6 furring wall and the ½” space behind it.

Contractor Question – What are door/frame material and dimensions and hardware set for well house? Or basis of design for pre-fabricated well house?

Clarification: A Tuff Shed (Tahoe style without floor) or similar as a basis for design is approved.

Contractor Question – A401 detail 2 shows casework at sampling sinks. We are not finding specifications for casework or countertops. What material are the cabinets and countertops?

Clarification: Please see attached Specification Section 06 41 13 Wood-Veneer-Faced Architectural Cabinets and Specification Section 12 36 16 Metal Countertops.

Contractor Question – What is the dimension from centerline of 24” inlet to finished floor elevation for each site?

Clarification: M302N and M302S drawings are to scale. Pipe inlet elevation to connect to site piping without conflicts, maintain a minimum 3 feet of cover, and maintain minimum clearances with surrounding pipes per specifications and civil drawings C105N & C105S for required clearances.

Contractor Question – What is bottom of pump can elevation for each site?

Clarification: Bottom of pump shall be per manufacturer and per hydraulic profile, see Sheets G005N & G005S.

Contractor Question – 43 21 52 2.5 calls for spare parts to include packing gland materials. Specs call out mechanical seals so what is the purpose of spare packing materials?

Clarification: Under Specification 43 21 52 2.5, remove the text “packing gland materials and tools”

End of Addendum #4

SECTION 06 41 13 - WOOD-VENEER-FACED ARCHITECTURAL CABINETS**PART 1 - GENERAL****1.1 SUMMARY**

A. Section Includes:

1. Architectural wood cabinets.
2. Wood furring, blocking, shims, and hanging strips for installing architectural wood cabinets unless concealed within other construction before cabinet installation.
3. Shop finishing of architectural wood cabinets.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product, including panel products, cabinet hardware and accessories, and finishing materials and processes.

B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components. Product design and layout to be by fabricator in accordance with Owner's instructions.

C. Samples:

1. Lumber for transparent finish, for each species and cut, finished on one side and one edge.
2. Veneer leaves representative of and selected from flitches to be used for transparent-finished cabinets.
3. Lumber and panel products with shop-applied opaque finish, for each finish system and color, with exposed surface finished.
4. Thermoset decorative panels, for each color, pattern, and surface finish.
5. Exposed cabinet hardware and accessories, one unit for each type.

1.3 QUALITY ASSURANCE

A. Refer to Section 420.

1.4 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

PART 2 - PRODUCTS

2.1 ARCHITECTURAL CABINET FABRICATORS

- A. Fabricators: Subject to compliance with requirements, provide products by a fabricator having at least 5 years' experience and approved by Owner.

2.2 ARCHITECTURAL WOOD CABINETS, GENERAL

- A. Quality Standard: Unless otherwise indicated, comply with the "Architectural Woodwork Standards" for grades of architectural wood cabinets indicated for construction, finishes, installation, and other requirements.

2.3 WOOD CABINETS FOR TRANSPARENT FINISH

- A. Grade: Custom.
- B. Type of Construction: Face frame.
- C. Cabinet and Door and Drawer Front Interface Style: Shaker style, Lipped.
- D. Wood for Exposed Surfaces:
 - 1. Species: Red oak, White oak, White ash, White birch or approved alternate.
 - 2. Cut: Plain sliced/plain sawn, rift cut/rift sawn, or Quarter cut/quarter sawn.
 - 3. Grain Direction: Vertically for doors and fixed panels, horizontally for drawer fronts.
 - 4. Matching of Veneer Leaves: Random match.
 - 5. Veneer Matching within Panel Face: Center-balance match.
- E. Semiexposed Surfaces: Provide surface materials indicated below:
 - 1. Surfaces Other Than Drawer Bodies: Hardwood plywood, stained to match.
 - 2. Drawer Subfronts, Backs, and Sides: Thermoset decorative panels with PVC or polyester edge banding.
 - 3. Drawer Bottoms: Hardwood plywood or thermoset decorative panels.

2.4 WOOD MATERIALS

- A. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.
 - 1. Wood Moisture Content: 5 to 10 percent.

2.5 CABINET HARDWARE AND ACCESSORIES

- A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets.
- B. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 100 degrees of opening.
- C. Drawer Slides: BHMA A156.9.
 - 1. Grade 1 and Grade 2: Side mounted and extending under bottom edge of drawer; full-extension type; epoxy-coated steel with polymer rollers.
 - 2. For drawers not more than 3 inches high and not more than 24 inches wide, provide Grade 2 or Grade 1.
 - 3. For drawers more than 3 inches high but not more than 6 inches high and not more than 24 inches wide, provide Grade 1.
- D. Door and Drawer Silencers: BHMA A156.16, L03011.
- E. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated.
 - 1. Satin Chromium Plated: BHMA 626 for brass or bronze base; BHMA 652 for steel base.

2.6 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln dried to less than 15 percent moisture content.
- B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use nonferrous-metal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.

2.7 FABRICATION

- A. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
- B. Shop-cut openings to maximum extent possible to receive hardware, appliances, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.

2.8 SHOP FINISHING

- A. General: Finish architectural wood cabinets at fabrication shop as specified in this Section. Defer only final touchup, cleaning, and polishing until after installation.
- B. Preparation for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing architectural wood cabinets, as applicable to each unit of work.
 - 1. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of cabinets.
- C. Transparent Finish:
 - 1. Grade: Custom.
 - 2. Finish: System - 5, conversion varnish.
 - 3. Wash Coat for Closed-Grain Woods: Apply wash-coat sealer to cabinets made from closed-grain wood before staining and finishing.
 - 4. Staining: Cherry Tone.
 - 5. Open Finish for Open-Grain Woods: Do not apply filler to open-grain woods.
 - 6. Filled Finish for Open-Grain Woods: Apply paste wood filler and wipe off excess. Tint filler to match stained wood.
 - 7. Sheen: Satin, 31-45 gloss units measured on 60-degree gloss meter per ASTM D 523.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Before installation, condition cabinets to average prevailing humidity conditions in installation areas.

3.2 INSTALLATION

- A. Grade: Install cabinets to comply with same grade as item to be installed.
- B. Install cabinets level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb to a tolerance of 1/8 inch in 96 inches.
- C. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.

- D. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork.
- E. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
 - 1. Install cabinets with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
 - 2. Fasten wall cabinets through back, near top and bottom, at ends, and not more than 16 inches o.c. with No. 10 wafer-head screws sized for not less than 1-1/2-inch penetration into inserts in substrate.
- F. Touch up finishing work specified in this Section after installation of woodwork. Fill nail holes with matching filler where exposed.

END OF SECTION

SECTION 12 36 16 - METAL COUNTERTOPS**PART 1 - GENERAL****1.1 SUMMARY**

- A. Section includes stainless-steel countertops and backsplashes.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Include plans, sections, details, and attachments to other work. Product design and layout to be by fabricator, to be compatible with work of Section 06 41 13 "Wood-Veneer-Faced Architectural Cabinets", and to be designed in accordance with Owner's direction.

PART 2 - PRODUCTS**2.1 MATERIALS**

- A. Stainless-Steel Sheet: ASTM A 240/A 240M, Type 304.
- B. Sealant for Countertops: Manufacturer's standard sealant of characteristics indicated below that complies with applicable requirements in Section 07 90 05 "Joint Sealers."
 - 1. Mildew-Resistant Joint Sealant: Mildew resistant, single component, nonsag, neutral curing, silicone.
 - 2. Color: Clear.

2.2 STAINLESS-STEEL COUNTERTOPS AND BACKSPASHES

- A. Countertops: Fabricate from 0.062-inch- thick, stainless-steel sheet. Provide smooth, clean exposed tops and edges in uniform plane, free of defects. Provide front and end overhang of 1 inch over the base cabinets.
 - 1. Joints: Fabricate countertops without field-made joints.
 - 2. Weld shop-made joints.
 - 3. Sound deaden the undersurface with heavy-build mastic coating.
 - 4. Extend the top down to provide a 1-inch- thick edge with a 1/2-inch return flange.
 - 5. Form the backsplash coved to and integral with top surface, with a 1/2-inch- thick top edge and 1/2-inch return flange.
 - 6. Provide raised (marine) edge around perimeter of tops containing sinks; pitch tops containing sinks two ways to provide drainage without channeling or grooving.

7. Where stainless-steel sinks occur in stainless-steel tops, factory weld into one integral unit.

2.3 STAINLESS-STEEL FINISH

- A. Grind and polish surfaces to produce uniform, directional satin finish matching No. 4 finish, with no evidence of welds and free of cross scratches. Run grain with long dimension of each piece. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces clean.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install metal countertops level, plumb, and true; shim as required, using concealed shims.
- B. Field Jointing: Where possible, make field jointing in the same manner as shop jointing; use fasteners recommended by manufacturer. Prepare edges to be joined in shop so Project-site processing of top and edge surfaces is not required.
- C. Secure tops to cabinets with Z- or L-type fasteners or equivalent; use two or more fasteners at each front, end, and back.
- D. Abut top and edge surfaces in one true plane, with internal supports placed to prevent deflection.
- E. Seal junctures of tops, splashes, and walls with mildew-resistant silicone sealant.

3.2 CLEANING AND PROTECTION

- A. Protection: Provide 6-mil plastic or other suitable water-resistant covering over the countertop surfaces. Tape to underside of countertop at a minimum of 48 inches o.c.

END OF SECTION