

SCOPE OF WORK

CATEGORY (21): Plumbing

PART 1 – GENERAL

1.01 Related Documents

Division 00 – General Conditions and Supplementary Conditions

Division 01 – General Requirements

Exhibit A – Baseline Schedule

Exhibit B – Logistics Plan

Exhibit C – Soils Report:

- Converse Final Geotechnical Investigation Report updated August 30, 2021
- Converse Response to CGS Letter dated February 24, 2022
- Converse Response to CGS Letter dated April 7, 2022

Exhibit D – Not Used

Exhibit E – DSA 103 Forms

Exhibit F – Reference Plans:

- F.1 – Not Used
- F.2 – Existing Underground Survey
- F.3 – Temporary Shoring Plan
- F.4 – Haul Route
- F.5 – Not Used

Exhibit G – SWPPP

Exhibit H – Tower Crane

Exhibit I – Construction Elevator/Hoist

Exhibit J – Restore Existing Turf & Irrigation

Exhibit K – Temporary Walkway at Bldg. 66

Exhibit L – Repaving at Existing Parking Lot D

Exhibit M – Added Fencing & Curbs at Transit Center

Exhibit N – Added Guardrail at Miracle Mile

Exhibit O – Added Chain Link Fence at Bldg. 69

Exhibit P – Adding Landscaping & Drainage at Bldg. 69

Exhibit Q – Existing Equipment 360 Photos (for reference only)

Exhibit R – Mock-up

1.02 Relevant Technical Specification Sections:

Increment 2

055000 - METAL FABRICATIONS

078413 - PENETRATION FIRESTOPPING

078443 - JOINT FIRESTOPPING

079200 - JOINT SEALANTS

079219 - ACOUSTICAL JOINT SEALANTS

083113.13 - ACCESS DOORS AND FRAMES

Division 22 Complete

311200 - EXISTING FACILITIES

312200 - GRADING

312300 - EARTHWORK

312316.13 - TRENCHING

PART 2 – INCLUSIONS:

2.01 General Inclusions:

1. The work includes but is not necessarily limited to furnishing all: labor, materials, and the installation of same, appliances, tools, equipment, facilities, transportation, receiving and unloading, hoisting, task lighting, applicable taxes and services necessary for, and incidental to, performing all operations in connection with this scope of work.
2. The breakdown of the scope of work by specifications is for organizational purposes only. The scope noted herein provides additional clarity only. It is not necessarily all inclusive. Where there is a reference to a detail, plan sheet or a note, this is to bring awareness only. Unless specifically “excluded”, this Contractor has the entire scope of work.
3. The scope noted herein, regardless, if duplicated in another’s scope of work and other contract documents, shall be included in this Category Contractor’s base bid. In the event a scope item is duplicated in another Contractor’s scope of work and/or other contract documents, this does not relieve this Contractor from the responsibility of the scope. It shall be the Construction Manager’s discretion as to which Contractor will perform the scope of work and who shall provide a credit for the value of the scope not provided.
4. Any reference in this scope to “Contractor”, “Category Contractor”, “Bid Category Contractor”, “Bid Package”, “Trade Contractor”, “Contractor”, “Subcontractor” or any version of these are all synonymous / one-in-the same.
5. Contractor shall provide at the job site a Superintendent fluent in written and spoken English at all times during the performance of this Contractor’s scope of work. It is the Contractor’s responsibility to supervise their on-site crews and subcontractors at all times work is being performed under Contractor’s scope of work.
6. Contractor is responsible to know the latest SCAQMD requirements:
 - A. Includes implementing those means necessary to ensure any and/or all related work materials, fluids, equipment, etc. are stored or covered in a manner acceptable to the requirements.
 - B. Contractor shall provide and maintain adequate dust control throughout the duration of their operation, including, but not limited to: washing/sweeping of existing sidewalks, public streets and concrete and asphalt access roads on a daily basis. Mitigation of dust shall be to the satisfaction of the Owner, City/County, and/or SCAQMD.
 - C. Any penalties the owner receives due to this Contractor’s negligence will be forwarded to this Contractor for reimbursement.
7. Contractor shall take reasonable care to maintain Storm Water Pollution (SWPPP) related erosion control facilities and temporary storm water diversion means during all work.
 - A. If inclement weather is foreseeable during operations of this trade, this Contractor shall use its best effort to leave the site in a condition that minimizes the effects of erosion caused by such weather.
 - B. Contractor to protect all work from effects of inclement weather at its own cost. Protection of this Contractor’s work area is the responsibility of same.
 - C. Any corrections and or repairs required due to damage inflicted by the work of this Contractor shall be the responsibility of same.
 - D. Any penalties the owner receives due to this Contractor’s negligence will be forwarded to this Contractor for reimbursement.
 - E. Contractors requiring wash out shall have their washout container(s) clearly marked. NO direct dumping onsite and/or into sewer and/or draining systems.
 - F. Contractor to review 01 64 00 for additional relevant information.

8. Contractor shall comply with all CAL OSHA requirements.
9. Written survey requests are to be provided to Construction Manager's Superintendent a minimum of three (3) working days prior to the start of work requiring surveying and are to be submitted in a manner that does not require excessive surveyor move-ins.
10. Contractor shall properly install and maintain all barricades, traffic control, warning lights, flagmen, for deliveries, hauling and/or disposal, including permits & fees as required by local and/or governing Agencies / municipalities for Contractor's scope of work whether expressly mentioned or not.
11. Contractor shall provide additional fencing, barricades, and/or other protection, which is in addition to site perimeter temporary fencing provided by others to protect open excavations or other hazards resulting from this Contractor's work. Contractor shall cover all open trenches with Cal OSHA compliant covering or soil each day. Temporary trench covering is to be installed in a manner so as to eliminate tripping hazard. It is the Contractor's responsibility to security material and equipment. Any theft of material/equipment is the Contractor's responsibility to replace.
12. Contractor is responsible to turn in Inspection Requests (IRs) and/or testing requests to Construction Manager's Superintendent no less than 48 hours prior to desired IOR inspection and no less than 72 hours for testing laboratory (LOR) inspection. Work must be complete and in compliance with the contract documents prior to IOR inspection. Contractor shall provide the necessary resources to make up time and bear all related cost associated with any late inspection requests and/or rejected inspections.
 - A. Contractor foreman shall walk with the DSA IOR during all inspections for this subcontractor's scope of work.
13. Any F.O.B. material and/or coordination required for the installation by this Contractor and/or other Contractors, shall be forwarded by the supplying Contractor with a letter of transmittal and detailed shop drawings showing dimensions, locations, and individual piece count to the installing Contractor via Tilden-Coil. ALL F.O.B. deliveries shall be coordinated with Construction Manager and the receiving Contractor at least 48 hours in advance. The receiving Contractor shall unload, inventory, and inspect materials. All shortages and damaged material must be noted on said transmittal. Receiving Contractor shall sign and date transmittal. Once the transmittal has been signed, it shall be the receiving Contractor's responsibility to protect and secure the material. Supplying Contractor shall forward a copy of signed transmittal to the Construction Manager's site office for their review and records. Supplying Contractor shall forward all F.O.B. material within the time limits as noted in the construction schedule so as to not delay receiving Contractor's work. If work is delayed due to the untimely forwarding of required material and/or information, the applicable Contractor shall be responsible for any and all costs incurred due to delays and/or corrective work.
14. A representative from this Contractor is to be on site to receive all material deliveries, whether they are performing work on site at the time or not. Construction Manager will not receive or sign for any deliveries of this Contractor's material. Contractor is to provide traffic control, including but not limited to flagmen, signage, delineators, etc. for any delivery vehicles that are unable to be unloaded on the project site, in accordance with all local traffic laws.
15. Contractor understands that housekeeping is critical to both safety and efficiency. Therefore, daily cleanup is an obligation of the contract. Contractor is responsible to legally remove their debris offsite on a daily basis or as necessary as not to be an impact to safety and dependent trades / progress of the project schedule. If daily housekeeping falls below acceptable standards, the Owner shall implement one of the three options to mitigate:

- A. Require a composite cleanup crew, as needed, until standard is restored. Contractor's manpower contribution size will be based on manpower size as follows:
 - i. 1 to 5 workers = 1, 6 to 10 workers = 2, 11-15 workers = 3, 16 to 20 workers = 4, 20+ workers = 5.
 - B. Hire a separate cleanup crew as needed until standard is restored. Hired crew will be funded via a deductive change order to the offending Contractor(s).
 - C. Require an "all hands" cleanup session as needed until standard is restored.
16. Contractor shall protect all existing on and/or offsite conditions. Any damage sustained by the work of this Contractor, shall be repaired or replaced within 48 hours or as directed by Construction Manager or Owner at the expense of this Contractor.
17. Contractor has been allotted a number of days for construction activities that relates to this trade. Contractor must manage to complete all work in allotted time frame without excuse. Contractor agrees to assign the appropriate manpower to complete the activities. Therefore, all clarification and approvals must be obtained prior to start of work and in such time as to allow response, procurement, and preparation without compromising the schedule activity time and scheduled start date and finish date. Late coordination and RFI's requested during work progress will not be an excuse for delay.
18. Contractor shall provide their own storage and safety measures.
19. Mobilizations and move-ins as necessary to achieve the progression of the project schedule.
20. Contractor understands and is responsible for all layout for their respective work.
21. Any new substrate provided by others for this Contractor's use and/or any existing substrate (existing conditions) is found to be unacceptable at the time of installation, Contractor shall advise Construction Manager before commencing. Any repairs and/or replacement required to the substrate once Contractor has commenced their work on the substrate, all costs associated with the removal and replacement of finished product shall be at the expense of this Contractor.
22. Construction Detailing Activity.
 - A. Refer to section 01 30 10 Construction Detailing Activity and Building Information Modeling for requirements and/or participation.
23. Within 10 days of Notice to Proceed, Contractor shall provide written documentation of lead times for all items. Upon submittal approval, Contractor shall provide written confirmation from each manufacturer and or fabricator of order placement, confirmed lead times and confirmed shipping dates of all items.
24. Contractor understands that submittals are to show the availability and coordination of the work in the specifications and contract documents. **NO DEVIATION FROM CONTRACT DOCUMENTS IS ALLOWED IN THE SUBMITTAL.** Any "approved" stamp on a submittal is only a cursory review from the design team with the assumption that all content within the submittal is per plans and specifications. Any deviation(s) from plans and specification contained in the "approved" submittal, **DOES NOT** constitute an approved deviation. Contractor hereby agrees that only specific change requests, within specific RFI's, approved by the design team and the Owner or specific written direction by the Architect will constitute an approved deviation from the contract documents.
25. Contractor is responsible to protect their work product and all existing surfaces interfacing with this scope. Contractor waives all financial costs associated with "unknown" trade damage unless such issue is vetted out at the time of the damage. Any trade damage is to be brought to the attention of the

Construction Manager immediately at the time of the damage. Failure to notify Construction Manager of the undetermined trade damage at the time of the damage will prevent Construction Manager from identifying the offending trade and will prevent Construction Manager from resolving the cost on behalf of the damaged Contractor.

26. Any back charge (for trade damage or other) shall be brought to the attention of the Construction Manager immediately at the time of the damage. Failure to notify Construction Manager to alleviate any opportunity to facilitate the issue with the trade(s) that caused the damage, forfeits their right to be reimbursed for any necessary repairs and or recourse.

2.02 General Trade Inclusions:

1. Includes all related plumbing systems such as but not limited to water piping, sewer piping, direct waste piping, storm drain piping, roof and overflow piping, vent piping, air and vacuum piping, air compressors & receivers, dryers, pumps, vacuum pumps, circulating pumps, heat pumps, water heaters washer & dryers hook up, grease, sand/oil separators and associated under slab piping, valves, cocks, solenoids, pressure assemblies, reduced pressure backflow preventers, yard hydrants, trap primers, angle stops, flush valves, shock arrestors, pressure/temperature relief valves, pressure gauges, thermometers, seismic restraints, chillers, expansion tanks, water filters, thermometers, mixing valves, solenoids, hose bibs, hose reels, compressed air and reels, air dryers, emergency eye wash and shower stations, etc. for a complete operative plumbing package.
2. Includes all plumbing and laboratory finish fixtures and the connection of same.
3. Extend utility lines from building and tie into the respective underground utility main line regardless if the lateral lines are shown or not and make final connection. POC for this project is 5' outside building footprint.
4. Plumbing lines not shown but noted on the fixture schedule and/or contained in the specifications is included in based bid.
5. Supply plumbing related lines to HVAC equipment and make final connection of same.
6. Fire-caulk, fire safing, fire blanket, fire sealant at plumbing related penetrations.
7. Counter flashing, lead flashings, boots, and any required materials at wall and/or roof penetrations. Includes clamping and joint sealant/caulking.
8. Acoustical sealant at all wall penetrations.
9. Fasten roof drain clamp ring after roofing has been installed and water testing roof drain piping in the presence of the Construction Manager.
10. Submit detailed layout of piping penetrations and/or sleeve through concrete and/or masonry walls. If layout is not provided timely, so as not to delay construction of any wall system, this Contractor shall be responsible to provide the penetration. Any penetrations made after the construction of walls shall be made in compliance with code and structural engineer requirements. All coring costs, x-ray, structural support for non-verified or improper placement will be the responsibility of this Contractor.
11. Provide layout and sleeve installation required through acceptable areas of walls, footings, grade beams, and concrete walls. Contractor to adjust inverts when possible to avoid conflicts with proposed grade

beams. Where a conflict occurs, Contractor to notify Construction Manager requesting clarification prior to proceeding with installation. Installation to occur only upon receipt of written approval from Architect/Engineer.

12. All braces, angles, brackets, wire, seismic related attachments for overhead, wall mounted, pad mounted or roof mounted support of the plumbing system / equipment including structural and miscellaneous steel complete as required for this work as detailed in the plumbing and/or structural drawings and/or as required by code. Provide shop drawings for structural review.
13. Provide templates for cutting countertops for sinks and coordinate layout and cutting of tops with Casework Contractor. If templates are not provided in a manner to avoid delaying the Casework Contractor, this Contractor shall be responsible for cutting openings in countertops.
14. Provide layout and size for plumbing related housekeeping pads.
15. All labels, tags, placards, and directional arrows.
16. All plumbing related pipe insulation including condensate lines where noted. Insulate exposed waste lines/tailpieces on lavatories, whether noted or not.
17. Fuel Systems complete, tanks, piping, venting, weather cap, etc. and related flashings.
18. No pipe cutting permitted on the building slab.
19. Pipe escutcheons at plumbing exposed pipe penetration, regardless if shown or not on the plans.
20. Adhere to the submittal, fabrication, and delivery durations to meet the requirements of the project schedule. Perform this work in accordance with the Project Schedule, and at the direction of the Construction Manager.
21. Coordinate this work with other trades necessary for complete and functioning installation. Attend all coordination meeting arranged by the Construction Manager.
22. Includes compliance and adherence to all Plumbing and General Notes.
23. Move-ins and durations in compliance with the published project schedule.
24. Contractor shall participate in a BIM coordination detailing activity per specification 013100 of the Division 01 bid documents.
25. All debris generated by subcontractor shall be disposed of offsite on a weekly basis.
26. All spoils generated as a result of this contractor's scope of work shall be removed off site by this category contractor daily.
27. All efforts shall be made to coordinate and properly schedule with advance notice all testing and inspections as required.
28. Concrete pour watch required of this contractor regardless of day or time.
29. Includes adjusting any plumbing prior to and during concrete placement to assure proper setting heights.

30. As-built drawings must be updated monthly in conjunction with approval of pay requests.
31. All trenching and backfill to be in accordance with the contract documents. All trenches to be sloped or shored per Cal OSHA regulations. Includes bedding, backfill and compaction at PIP trenches and earth trenches.
32. All grades disturbed by the plumbing contractor due to the underground utility connection/installation MUST be restored to grade within +/- one tenth of a foot (.10').
33. Provide all operation and maintenance manuals and owner training. Provide all spare parts, testing/adjusting/balancing reports must be received and approved before Contractor is progressed to 100% completion.
34. Includes protection of adjacent surfaces during execution of this work. Repair any damages caused by the performance of this category's work.
35. Contractor is responsible for protection of all installations and maintenance of same until project turn-over.
36. Includes installation of compressed air system. Includes handling, installation and final connections for owner provided Air compressors.
37. Includes installation of vacuum system.
38. Includes all labor for owner furnished and contractor installed items.
39. Includes precast splash blocks and down spouts at all RD overflow outlets.
40. Includes site plumbing per P0.10.
41. Dry sump pits including all electrical components. Power and hook up by electrical contractor.
42. Includes building trench drains and trench drain covers.
43. Includes building and site campus standard drinking fountains and hydro stations. Site water to be provided +/- 5' away from final locations of drinking stations. This contractor to connect to stub and continue with all final connections and terminations at fixture.
44. Includes water to all refrigerator and ice maker locations whether shown or not.
45. Coordinate all backing requirements with framing contractor.
46. Includes roof penetration and supports flashing.
47. Includes cutting of any penetration through prelim walls for installations of this contractor.
48. Includes all supply, drain, and waste piping required under footings, adjust inverts as necessary to avoid conflicts with grade beams or footings.

49. Protect concrete slabs from oil spills during pipe-cutting/threading operations. Remove spills from slabs and do not allow oil to contaminate soil.
50. Includes access panels for concealed plumbing equipment, valves, water hammer arrestors, trap primers, etc. whether shown on plans or not. All access doors are to be provided with the appropriate fire ratings. Use stainless steel doors in ceramic tile, FRP and concession areas.
51. Verify correct height and location of drains, clean outs, etc., prior to and during concrete placement. Coordinate floor slope requirements with concrete contractor during layout.
52. Includes all braces, brackets, trapeze, ceiling hanger seismic bracing and related support systems complete as required for work under this category's scope of work.
53. Provide layout and sizes for all concrete housekeeping pads constructed by others.
54. Includes certification for all tests and disinfection/chlorination.
55. Includes identification and tagging of pipes and valves.
56. Includes all plumbing and HVAC primary and secondary condensation piping.
57. Caulk all fixtures to adjacent surfaces.
58. Procure in advance of complete delivery one of each type sink for casework contractor to cut openings in tops
59. Includes all fire caulking/fire stop, sealants and acoustical sealants at all plumbing penetrations in any type of wall. Match rating at STC walls. Acoustical sealant where required.
60. Provide all sleeves, sleeve seals, coring, drilling, beam penetrations and caulking of penetrations required for this scope of work.
61. Includes isolation of systems for testing as required to meet requirements of schedule. Partial testing of systems shall be included in this category scope.
62. Includes water supply to all equipment requiring same.
63. Includes direct and indirect waste for kitchen equipment requiring same.
64. Provide final connection to all mechanical, foodservice/kitchen, and plumbing equipment.
65. All plumbing related supply, vent, and waste lines for food service equipment and final connection as noted on the Food Service plan sheets unless noted otherwise. Refer to the plumbing notes in the Food Service Plans.
66. Contractor has included the costs for off-site storage of project materials.
67. Furnish and install steel stiffener angles on the metal decking at locations where piping, roof or overflow drains penetrate the floor and roof decks. Reference the Contract Documents for requirements.
68. Includes all braided flex assemblies.

69. The water piping system within the building shall be energized at all times during installation of drywall.
70. All plumbing fixtures and drains shall be adequately protected from damage and so that no foreign matter can enter. Additionally, protect so that they cannot be used prior to building occupancy. Remove protection upon Construction Manager direction.
71. Snake all drains, water jet and flow test all lines prior to project completion. Upon project completion and when directed by the Construction Manager, flush all drains, remove and clean all filters, strainers, etc.
72. Polish all floor drain covers at conclusion of project.
73. Any damage to finishes, fire proofing, or rough framing caused by this Contractor, shall be repaired by this Contractor.
74. Any exposed plumbing shall be neat, clean, straight, and in a condition ready to accept paint. Any final cleaning or preparation required to ready these installations for paint is included if required.
75. Plumbing Contractor shall participate in the building commissioning process. This includes attending meeting, filling out pre-functional checklists, demonstrating to Commissioning Authority functionality of systems in the field and making all corrections. Contractor shall provide O&M's for purposes of commissioning above and beyond closeout O&Ms.

PART 3 – ALLOWANCES:

1. Bid Contractor shall include in their base bid the Trade Specific Bid Category Allowance identified in Division 01 (Specification Section 01 21 00 – Allowance). This allowance shall be used at the discretion of the Construction Manager and/or Owner. The allowance shall not be used for this Contractors' poor workmanship, missed scope, delays imposed due to this Contractor, or corrective work. All labor rates and material cost shall be determined in accordance with the General Conditions. All mark-up, general conditions, bonds, fee, overhead & profit, insurance, and supervision for this allowance shall be in addition to the allowance amount identified in Division 01 and is to be included in this Contractor's Base Bid. This allowance shall be specifically itemized on this Bid Category Contractors Schedule of Values.

PART 4 – EXCLUSIONS:

PART 5 – BID ALTERNATES: