



PRINCETON
DENTAL CENTER



Instructions to Bidders

**Princeton Dental Center
Ground-Up New Build
1921 N 2nd St
Princeton, MN 55371**

Keystone Design Build, Inc.
233 34th Avenue South
Waite Park, MN 56387

320-253-3301(office)

Project Managers:
Sam Kelash: 320-241-5234
samuelk@keystonedb.com
Marc Kelash: 320-761-8062
marck@keystonedb.com

BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS OF THE CONTRACT

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- 1-1.1 **BID DUE DATE: May 9th, 2025 11:00am**
- 1.2 **INVITED BIDDERS**. This project is offered for proposals to invited subcontract bidders only.
- 1.3 **PROJECT DESCRIPTION**. The project, referred to as **Princeton Dental Center**, includes furnishing labor and materials for a 4,448 SF new building in Princeton, per plans by Cole Group Architects dated 4-30-2025 including the following outline.
- 1.4 **BIDDING DOCUMENTS**. Bidding documents are available to subcontract bidders for the purpose of obtaining bids on their scope of work. Any reproduction or other use of the documents is prohibited. Electronic copies are available by request at the following email: samuelk@keystonedb.com or hard copies at the main office. There will be a fee for copy and mailing. Contact Sam at Keystone Design Build, Inc. 320-253-3301 for more information.
- 1.5 **BIDDER SUBMITTALS**. Use complete sets of Bidding Documents in preparing bids. Neither the Owners nor Keystone Design Build assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of bidding documents.
 - A. **Bids on Subcontractor's Letterhead** shall be submitted by email at samuelk@keystonedb.com by **May 9th, 2025 at 11:00 am**.
 - B. **Bid Security**. A bid security is **not** required.
 - C. **Bidder's Qualifications**. Each Subcontract bidder **must** provide evidence to Keystone Design Build that the Subcontractor is qualified to do business in the state/city where the project is located AND be insured adequately for this project. **Each subcontractor must fill out the enclosed, Qualified subcontractor form and send in with a proposal.**
- 1.6 **BIDDING CONDITIONS**. Bidders must satisfy themselves of the accuracy of the existing details and dimensions by examination of the site and a review of the Drawings and the Project Manual. After the bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the quantities of work or of the nature of the work to be done. Additional compensation shall not be awarded for conditions which can be determined from a prudent examination of the site and the Bidding Documents. The following is a list of Bidder's Responsibilities:

- A. Examination. Thoroughly examine the Bidding Documents.
- B. Visit the site to become familiar with the conditions that may affect cost, progress or performance of the work.
- C. Material Substitutions. Submit to Keystone Design Build in writing, (at least seven days prior to submission of bids), any request to supply materials or equipment that differ from what is currently specified. Approved substitutions will be sent to all bidding subcontractors by way of addendum.
- D. Interpretation. Submit to Keystone Design Build in writing, (at least seven days prior to submission of bids), questions about the meaning or intent of the Bidding Documents. Replies will be sent by e-mail in the form of Addenda. Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications received by the Owner, Architect or Contractor will not be binding.
- E. Modification or Withdrawal of Bids. Any bid may be modified or withdrawn prior to the date and time scheduled for the submission of bids. **Bidders may not withdraw a Bid for a period of thirty days** after the actual due date and time for bid submission.

1.7 ACCEPTANCE OF BIDS. Keystone Design Build reserves the right to accept or reject any and all bids and waive any informality in the bidding. Contractor is not required to take the lowest bid. All bids will be reviewed and final acceptance will be based on what the Owner and Contractor determine to be in the best interest of the Project.

At all times when Subcontractor will be performing Services pursuant to the terms of this Agreement, Subcontractor agrees to procure and maintain the following insurance coverage:

1. Workers' Compensation insurance (or maintenance of a legally permitted and governmentally approved program of self-insurance) covering Subcontractor's employees pursuant to applicable state workers' compensation laws for work related injuries suffered by employees of Subcontractor;
2. Commercial General Liability covering bodily injury and property damage liability with a limit of not less than \$1,000,000 each occurrence and an aggregate limit not less than \$2,000,000;
3. Business Automobile Liability covering not less than \$1,000,000 each occurrence for owned and non-owned vehicles;
4. Excess Liability Umbrella policy covering not less than \$1,000,000.00 each occurrence for combined bodily injury and property damage;
5. Employers' Liability insurance with limits of not less than \$100,000 each accident; and
6. Subcontractor must provide a Waiver of Subrogation naming Keystone Design Build, Inc. on the General Liability policy and the Worker's Compensation policy.
7. Keystone Design Build must be included as additional insured, in accordance with ISO CG2010 or CG2033.
8. Such other coverage may be required by law.

Please note: Any third-party subcontractor hired by you to complete your contracted work will be required to procure and maintain the same insurance requirements listed above, and to provide Keystone with a certificate of insurance as proof of coverage.

All insurance shall be in force throughout the initial term and any renewal term and shall name Keystone as an additional insured. Insurance shall be provided by companies acceptable to Keystone and the policies shall provide that notice shall be given to Keystone in writing thirty (30) days prior to any cancellations or modifications of such insurance. Before beginning any work on the Projects, and upon request by Keystone at any other time, Subcontractor will furnish Keystone with certificates of insurance as proof of insurance coverage and certification of workers compensation coverage, updated, as is necessary, to maintain active coverage, all in the form satisfactory to Keystone.

All Divisions: Per Documents/Plans: Architectural dated 4-30-2025, Structural dated 4-29-2025, and Civils dated 4-30-2025.

- i.
- ii. **DIVISION 02 – SITE CONSTRUCTION**
 1. Earthwork & Demolition: **Site Inspection prior to bidding mandatory.**
 - a. **All mechanical nails/fasteners and equipment (lifts, etc.) supplied by subcontractor.**
 - b. **Provide daily cleanup of site.**
 - i. Dumpster will be provided by Keystone Design Build Inc.
 - c. **Erosion Control/SWPPP: Provide full quote.**
 - i. Provide/Install/Maintain erosion control/silt fence per Civil Documents and follow SWPPP as per Civil Documents.
 - ii. Protect and maintain existing catch basins as per local requirements.
 - iii. **Provide stabilization of soils and areas left unattended for seven (7) days.**
 - iv. Remove silt fence when site stabilization has meet the SWPPP requirements.
 - d. Remove all existing debris on site, as applicable.
 - i. Haul away any fill/debris that will not be used for construction.
 - ii. Furnish/Import and install fill as needed to maintain grades per Civil Documents.
 - e. Provide/Install Water/Sewer/Storm/Drain Tile and Geotextile Fabric as per Civil Documents.
 - i. Locate and identify existing utilities.
 - ii. Remove, relocate or cap off and provide connections for new services.
 - f. Remove organic topsoil, stockpile and re-spread, as needed for sidewalks.
 - i. **Provide stabilization of soils, stockpiles and areas left unattended for seven (7) days.**
 - g. Remove trees and stumps, if required for new building addition.
 - i. Haul away.
 - ii. Furnish/Import and install fill as needed to maintain grades per Civil Documents.
 - h. Provide/Install concrete washout facility, maintain and remove prior to final site grading.
 - i. Import and export all materials as required.
 - j. Excavate & backfill foundations and install non-expansive cushion for new vestibule addition slab. Include all fill/backfill at interior slabs ready for concrete.
 - k. Provide/Install 6" sand cushion underneath sidewalks.
 - l. Furnish/Import, export and compact materials as required to meet inspection requirements and new elevations.
 - m. Provide/Install site grading to establish grades & contours per Civil Documents.
 - n. Provide/Install organic soils ready for the landscaper.

2. Asphalt Paving:
 - a. Provide/Install a minimum 6" aggregate base as needed for all asphalt, per civil documents and soils report requirements.
 - b. Seal coat existing parking lot and driveways.
 - c. Provide lot striping per local requirements.
 - i. White lane stripe.
 - d. Provide/Install handicap signage.
3. Site Concrete:
 - a. Curbing, sidewalks and walkways per Architectural Documents.
4. Landscaping & Irrigation:
 - a. Provide/Install underground sidewalk sleeves as needed.
 - b. As per plan C-1. Value engineering will be allowed after the contractor is selected by the owner.
 - c. Provide a separate landscaping & irrigation proposal.
 - d. Hook up irrigation to 1 1/2" line stubbed out by the plumbing contractor.
 - e. Provide alternates as needed.
 - f. Work and clean all organic soils ready for seed/sod options.
 - g. Fine grade soils.

DIVISION 03 - CONCRETE CONSTRUCTION

1. Cast in Place Concrete: **Per Architectural and Structural Documents.**
 - a. **All mechanical nails/fasteners and equipment (lifts, etc.) supplied by subcontractor.**
 - b. **Provide Daily cleanup of site.**
 - i. Dumpster will be provided by Keystone Design Build Inc.
 - c. Provide/Install continuous & pad footings per Structural Documents.
 - d. All foundation walls are to be poured concrete per structural drawings.
 - e. Include rigid insulation on the interior of new foundation walls, per plan.
 - f. Provide/Install slab on grade and stoops. Control joints as needed.
 - g. Seal exterior concrete.
 - h. Provide/Install all exterior concrete pads, aprons, sidewalks, integral curbs, concrete driveway, curbs, pillars, and piers per Civil, Architectural and Structural Documents.
 - i. Provide/Install truncated domes per Civil Documents.
 - j. Provide/Install all anchors and rebar as needed per Structural Documents.

DIVISION 04 - MASONRY CONSTRUCTION

1. Concrete Masonry Units: **Per Architectural and Structural Documents.**
 - a. **All mechanical nails/fasteners and equipment (lifts, etc.) supplied by subcontractors.**
 - b. **Subcontractor to supply water hose/buckets for all Masonry as needed (water onsite).**
 - c. **Provide Daily cleanup of site.**
 - i. Dumpster will be provided by Keystone Design Build Inc.

- d. **Provide separate quote for CMU (block) foundation walls per Structural Documents.**
 - i. **Include cost to Provide and Install below grade rigid insulation per Architectural Documents.**
 - e. Provide/Install all anchors and rebar per Structural Documents.
- 2. Stone Masonry: **Per Architectural and Structural Documents.**
 - a. **All mechanical nails/fasteners and equipment (lifts, etc.) supplied by subcontractor.**
 - b. **Provide Daily cleanup of site.**
 - i. Dumpster will be provided by Keystone Design Build Inc.
 - c. Provide/Install all prep materials building paper over building sheathing.
 - d. Provide/Install cultured stone at exterior, columns, and interior per Architectural Documents.
 - i. **Manufacturer: Boral Stone.**
 - ii. **Finish: Ancient Villa Ledgestone.**
 - e. Provide/Install matching sills, caps, and lintels as needed.
 - f. **Provide/Install all caulking, flashing and grout as needed.**

DIVISION 06 – CARPENTRY

- 1. Rough Carpentry: To Include: Material & Labor (labor to include all equipment for the required task/tasks). Separate Labor & Material Bids Will Be Accepted.
- 2. **Per Architectural and Structural Documents.**
 - a. **All mechanical nails/fasteners and equipment (lifts, etc.) supplied by subcontractor.**
 - b. **Provide Daily cleanup of site.**
 - i. Dumpster will be provided by Keystone Design Build Inc.
 - c. Sill seal, treated plates.
 - d. Exterior wall framing, headers, sheathing & building paper per structural and architectural plans.
 - e. All sheer walls and anchors.
 - f. 10' side walls except where noted.
 - g. Wood/LVL beams and columns.
 - h. Roof trusses, bracing & sheathing hand frame roof overlays per roof plan.
 - i. **Quote must Include crane/forklift as needed.**
 - i. Provide/install temporary doors and hardware as needed.
 - j. Installation of all exterior steel doors/frames and hollow metal frames.
 - k. Miscellaneous framing/blocking at soffit, fascia, lookouts, hip returns, etc.
 - l. Interior framing, headers & wall blocking.
 - m. Install backing for grab bars, control joints, bath accessories, fire extinguisher cabinets, restroom partitions, dental x-rays etc.
 - n. **Dental backing must be done per supplier's specifications.**
 - i. This includes but is not limited to 4x4 posts, 2 sheets of $\frac{3}{4}$ " plywood glued together for panoramic x-ray, miscellaneous 2x6 backing, etc.
 - o. Build boxes for semi-recessed fire extinguishers where necessary allow for $\frac{5}{8}$ " drywall returns.
 - p. Install all draft stops and fire walls as required.

3. Finish Carpentry: Architectural Woodwork: **(Trim & Hardware)** (Separate labor & material bids)
 - a. **Per Architectural and Structural Documents.**
 - b. **All mechanical nails/fasteners and equipment (lifts, etc.) supplied by subcontractor.**
 - c. **Provide Daily cleanup of site.**
 1. Dumpster will be provided by Keystone Design Build Inc.
 - d. Materials:
 1. **All trim work to be stained and finished by supplier.**
 - a. Stained and finished 4-1/4" poplar base & 3-1/4" poplar door casing.
 - b. **Separate quote/Alternate:**
 - i. Stained and finished poplar window extension jambs with stained and finished casing.
 - c. 3 panel poplar interior SCWD and frames per Architectural Documents.
 - i. Shaker – 2 panels up, one panel down.
 - d. Prefinished extension jambs at all windows and aluminum doors.
 2. Hardware to be Schlage F series lever style at interior.
 - a. As per Architectural Documents listed in the room schedule.
 3. Exterior clad frames and steel doors per Architectural Documents.
 - e. Labor:
 1. Installation of all wood doors/frames and trim work per Architectural Documents.
 2. **Separate quote/Alternate:**
 - a. Labor to install, stained and finished poplar window extension jambs with stained and finished casing.
 3. Installation of clad metal frames and steel door slabs per Architectural Documents.
 4. Remove all temporary doors and install permanent doors where needed.
 5. Install all door hardware including knobs, closers, stops, push/pulls, bumpers, panics, misc hardware per Architectural Documents.
 6. Install all bathroom accessories; grab bars, toilet paper dispensers, baby changers, mirrors, etc. See Architectural Documents for details.
4. Architectural woodwork: **Per Architectural and Structural Documents.**
(Cabinetry) Subcontractor to supply shop drawings along with estimate.
 - a. All cabinetry, counters, vanities, etc. to follow ADA requirements where applicable. **(Verify appliance sizes with contractor)**
 - b. **All mechanical nails/fasteners and equipment (lifts, etc.) supplied by subcontractor.**
 - c. **Provide Daily cleanup of site.**

- i. Dumpster will be provided by Keystone Design Build Inc.
- d. See Finish Schedule, Material List and plan for details.
 - i. Reception:
 - 1. See Architectural Documents for details.
 - 2. Finished Poplar veneer cabinetry with laminate countertop at work station and granite (category 2) customer countertop.
 - ii. Lobby:
 - 1. Finished cabinets to match reception at fireplace area.
 - 2. Countertop to be granite (category 2)
 - iii. Public Restrooms:
 - 1. See Architectural Documents for details.
 - 2. Cultured Marble tops with integral bowls.
 - 3. Finished Poplar apron with finished Poplar leg.
 - iv. Private Employee Restrooms
 - 1. See Architectural Documents for details.
 - 2. Cultured Marble tops with integral bowls.
 - v. Dr's Office:
 - 1. Finished Poplar veneer cabinetry (lower & upper), with laminate countertops as per plan.
 - vi. Treatment/Hygiene Rooms:
 - 1. Plastic laminate side console base and upper cabinets with p'lam tops.
 - vii. Lab:
 - 1. See Architectural Documents for details.
 - 2. P-Lam base and upper Cabinets with P-Lam countertop.
 - viii. Sterilization: **Provide Separate/Alternate Quote.**
 - 1. See Cabinetry File in Dropbox for details.
 - 2. Plastic laminate base and upper cabinets with quartz countertops.
 - 3. Include drying racks for instruments on uppers.
 - ix. Back Office:
 - 1. Finished Poplar veneer cabinetry (lower & upper), with laminate countertops as per plan.
 - 2. Upper and Lowers with file cabinets, work spaces and shelves.
 - ix. Break Room:
 - 3. See Architectural Documents for details.
 - 4. Plastic laminate base and upper cabinets with laminate countertop.
 - x. Laundry/Locker:
 - 5. See Architectural Documents for details.
 - 6. Plastic laminate folding shelf with supports.

DIVISION 07 - THERMAL/MOISTURE PROTECTION

2. **Per Architectural Documents.**
3. **All mechanical nails/fasteners and equipment (lifts, etc.) supplied by subcontractor.**
4. **Provide Daily cleanup of site.**
 - a. Dumpster will be provided by Keystone Design Build Inc.
5. **Insulation: (Combined Material & Labor)**
 - a. Exterior wall insulation as per Architectural Documents and Local/State Codes.
 - b. Attic/Roof insulation as per Architectural Documents and Local/State Codes.
 - c. Fiberglass batt insulation in interior walls for sound control.
 - d. Install poly on all exterior walls and ceilings per Architectural Documents and Local/State Codes.
 - e. Caulk/foam all areas needed in walls and draft stops.
 - f. Fire barrier sealant around any attic penetrations, or as needed by local/state code.
 - g. Insulate around windows and doors as needed.
6. **Roofing: (Combined Material & Labor, Separate Labor & Material Bids accepted)**
 - a. Timberline-HD Weathered Wood 30-year laminated shingles or equal.
 - b. Install all ice and water barriers on valley and roof edges as needed per Architectural Documents and Local/State Codes.
 - c. Install felt, roof edge, hip and ridge cap, roof vents, ridge vents, valley and misc. flashing.
 - d. Metal standing seam panel roof above on roof accents per architectural drawings. See plan for details.
7. **Soffit & Fascia: (Combined Material & Labor, Separate Labor & Material Bids accepted)**
 - a. Provide/Install prefinished metal soffit and fascia system.
 - b. Provide/Install prefinished flashings needed below stone and at stone caps, window wraps, etc.
8. **Siding, Shakes, Frieze Board: (Combined Material & Labor, Separate Labor & Material Bids accepted)**
 - a. Provide/Install prefinished board and batten LP Smartside siding.
 - b. Provide/Install 6" and 4" prefinished LP Smartside trims as required and as per plan.
 - c. Caulking around all siding/frieze board junctions, joints connections as required.

DIVISION 08 - DOORS AND WINDOWS

1. **Per Architectural Documents.**
2. **All mechanical nails/fasteners and equipment (lifts, etc.) supplied by subcontractor.**
3. **Provide Daily cleanup of site.**
 - a. Dumpster will be provided by Keystone Design Build Inc.
4. **Doors, Frames & Hardware:**
 - a. Aluminum storefront doors at vestibule.
 1. Sidelights for the front exterior vestibule door both sides.
 2. Include transom/sidelites tops per plan.
 3. Doors to be medium style with panic hardware, push pulls, closure, and 1" clear insulated glass. See door schedule.
 - b. Remaining exterior doors to be steel/metal raised panel doors with a metal clad frame.
 1. See door and hardware schedule.
 - c. Caulking around ALL exterior doors as needed.
 - d. Interior doors to be 1-3/8 inch solid core 3 panel wood.
 1. Shaker style door, 2 panels up, 1 panel down.
 - e. Hallway door to be decorative (Rain Glass or similar).
 - f. The door hardware will be Schlage F Series in a satin finish or other standard color.
 - g. Commercial/heavy weight hinges on all doors.
5. **Windows:**
 - a. Windows are figured to be Anderson 400 Series (or equal).
 1. Dark bronze/black finish.
 2. Grilles per elevations
 - b. All windows in treatment rooms to be operable.
6. **Mirrors**
 - a. Install glass mirrors at all restrooms (3).

DIVISION 09 – FINISHES

1. **Per Architectural Documents.**
2. **All mechanical nails/fasteners and equipment supplied by subcontractor.**
3. **Provide Daily cleanup of site.**
 - a. Dumpster will be provided by Keystone Design Build Inc.
4. **Drywall: (Combined Material & Labor)**
 - a. Supply & install 5/8" drywall on walls, ceilings & soffits.
 - b. Taping, sanding & texturing, ready for paint.
 - i. **Provide Separate/Alternate Quote for priming before texture per drywall standards.**
 - ii. **Provide Separate/Alternate Quote for sheetrock returns and rounded corners at windows.**
 - c. Fire tape ceilings where necessary per local/state code.

- d. Installation of all control joints necessary for controlling cracks.
- e. Ceilings/soffits; knockdown, orange peel or smooth texture **as chosen by owner.**
- f. Walls to be; knockdown, orange peel or smooth texture **as chosen by owner.**
- g. Wipe down walls ready for prime and paint.

5. Acoustic Tile Work: **(Combined Material & Labor)**

- a. Acoustic drop ceilings throughout all hallways, hygiene, ops, sterile, lab, office and consult.
- b. Ceiling to be 2x2 revealed edge tiles.
- c. USG Eclipse or equal.

6. Carpet & Resilient Flooring: **(Combined Material & Labor)**

- a. See Finish Schedule.
- b. Include ceramic tile on all bathroom floors and wet walls.

7. Painting & Wall coverings: **(Combined Material & Labor)**

- a. Interior:
 - i. See Finish Schedule.
 - ii. All walls & ceilings, will receive latex primer and two (2) coats paint (eggshell finish). Sherwin Williams Promar 200 or equal.
 - 1. Back roll both paint and primer.
 - iii. **Fill nail holes (trim).**
 - iv. Touch up of walls and ceilings as needed at end of project.
 - v. Paint interior/exterior hollow metal/steel doors & frames.

DIVISION 10 – SPECIALTIES

- 1. **Per Architectural Documents.**
- 2. **All mechanical nails/fasteners and equipment supplied by subcontractor.**
- 3. **Provide Daily cleanup of site.**
 - a. Dumpster will be provided by Keystone Design Build Inc.
- 4. Signage:
 - a. Bathroom ADA signage.
 - b. Treatment/hygiene signage.
- 5. Fire Extinguishers:
 - c. Recessed cabinets and fire extinguishers per plan.
- 6. Toilet Accessories:
 - d. Toilet paper holders, automated paper towel holder dispensers, grab bars, baby changing stations, mirrors, etc. at restrooms per plan.

DIVISION 15 - MECHANICAL SYSTEMS

1. Heating, Ventilating & Air Conditioning: (Combined Material & Labor)
2. **New HVAC system to be design/build installing a new forced air system using residential furnaces/air conditioners.**
 - a. **All mechanical nails/fasteners and equipment supplied by subcontractor.**
 - b. **Provide Daily cleanup of site.**
 - i. Dumpster will be provided by Keystone Design Build Inc.
 - e. Furnishing and install all ductwork as necessary.
 - f. Furnish and set A/C units on fiberglass pads located at the exterior.
 - g. Provide/Install hookup of all gas, venting/etc. for all necessary dental and owner supplied equipment.
 - h. Provide/Install venting for the dryer.
 - i. Provide/Install exhaust fans in private and public restrooms.
3. Plumbing Systems: (Combined Material & Labor)
4. **New Plumbing system to be design/build.**
 - i. **All equipment listed is equal to Delta or better.**
 - b. **All mechanical nails/fasteners and equipment supplied by subcontractor.**
 - c. **Provide Daily cleanup of site.**
 - i. Dumpster will be provided by Keystone Design Build Inc.
 - d. See site utility section.
 - e. See dental equipment supplier plans.
 - i. Include price and or allowance for Dental Equipment hookups (define).
 - f. Restrooms (3):
 - i. Provide/Install drain and sink connections as needed.
 - ii. Provide/Install ADA Water Closet in white/with seat, or equal.
 - iii. Provide/Install single lever faucets – stainless steel.
 - iv. Provide/Install floor drains and trap wraps under sink.
 1. Provide/Install floor drains in restrooms, **drains to be offset so they do not interfere with walking paths or ADA requirements.**
 - v. Plumbing above may be substituted upon request.
 1. Must submit shop drawings for approval.
 - g. Lab:
 - i. Provide/Install drain and sink connections as needed.
 - ii. Provide/Install double bowl stainless sink with gooseneck faucet as per plan.
 - iii. Provide air line hook-up and chicago valve near sink.
 - iv. Gas line ran to the lab.
 - h. Sterilization
 - i. Provide drains and water lines under sinks
 - ii. Install stainless undermount sink bowls (2) with faucet fixtures.
 - iii. Air and vacuum lines ran to the sterilization.

- i. Break Room:
 - i. Provide/Install drain and sink connections as needed.
 - ii. Provide/Install double bowl stainless sink with gooseneck faucet.
 - iii. Provide/Install water lines and drain also include final hookup of dishwasher.
 - iv. Provide a water line to the fridge.
- j. Mechanical Room:
 - i. Provide/Install necessary air/gas/vacuum lines per equipment supplier as needed.
 - ii. Provide/Install hookups to vacuum, compressor and other equipment as needed.
 - 1. Include labor and material for venting equipment.
 - iii. Provide/Install drain and sink connections as needed.
 - iv. Provide/Install miscellaneous equipment & floor drain/standpipe drains for furnaces.
 - v. Provide/Install mop sink with side splashes and hot/cold faucets.
 - vi. Provide/Install Floor drain for Vacuum system as needed.
- k. Treatment and Hygiene Rooms:
 - i. Provide/Install necessary air/gas/vacuum lines per equipment supplier as needed.
 - 1. See Dental equipment plans.
 - ii. Provide/Install hookups to vacuum, compressor and other equipment as needed.
 - 1. Include labor and material for venting equipment.
 - iii. Provide/Install drain and sink connections as needed.
- l. Miscellaneous:
 - i. Domestic water meter (upgrade existing, if required)
 - ii. Hook up of sewer/water/etc (tie into existing as needed)
 - iii. 1 ½" line stubbed out for future lawn irrigation.
 - iv. Provide a 50-gallon electric water heater with a recirculation line.
 - v. Two outside keyless faucets.
 - vi. Hook up the washer/dryer.

i. DIVISION 16 – ELECTRICAL

- 1. (Combined Material & Labor)
- 2. **New electrical system to be design/build.**
- 3. **All equipment listed is equal to or better.**
- 4. **All mechanical nails/fasteners and equipment supplied by subcontractors.**
- 5. **Provide Daily cleanup of site.**
 - a. Dumpster will be provided by Keystone Design Build Inc.
- 6. See dental equipment supplier plans.
 - a. Include price and or allowance for Dental Equipment hookups (define).
- 7. Provide/Install electric service:

- a. Provide/Install required service panel/panels, circuits, wiring, etc. as required and per plans.
8. Provide/Install power/wiring/connections for new mechanical equipment, as required.
9. Provide/Install electrical needed for dental equipment.
 - a. Includes switched receptacles for equipment as needed.
10. Provide/Install hookup/wiring of all appliances and fireplace.
11. Provide/Install connection for Electric dryer.
12. Provide/Install up to (120) One hundred twenty convenience receptacles will be placed in locations determined by Owner.
13. Provide/Install Light switches will be placed at each door as needed.
14. Provide/Install bank of switches and override switch to shut down all equipment at exit area.
15. Provide/Install lights per reflected ceiling plan, including recessed cans – LED lights for cans, LED track, tube, etc.
16. ALL Lighting will be LED lighting.
17. Include labor only for decorative/hanging fixtures.
18. Provide/Install three way switches for all can lights and decorative fixtures.
19. Provide/Install LED surface mount fixtures in basement mechanical room(s).
20. **Provide room by room count of all switches, receptacles, lights, etc.**
21. Provide/Install connections of all interior and exterior electrical needs.
22. Provide/Install emergency lights, exit lights and smoke detectors as required.
23. **TEMPORARY ELECTRICAL:**
 - a. Provide temporary electrical outlets for construction use throughout the project.

Low Voltage

1. Include an allowance for fire alarm system including necessary horns/strobes, panels, certifying system, etc.
2. Include an allowance for security system, speaker system, room controls, music and audio/video. Provide minimal layout sketch for basic system.
3. Include **allowance** for any needed low voltage conduits, lines, etc for phone & data (figure 10 each throughout).
4. Include 2" conduit chases at ALL headwalls for hygiene and treatment rooms.
5. Include all wiring and terminating at both ends.

1. SHOP DRAWINGS

A. Preparation

- 1) Prepared by a qualified detailer.
- 2) Identify details by reference to sheet and detail numbers shown on Contract Drawings.

B. Scale required

- 1) Unless otherwise specifically directed, make all shop drawings accurately to a scale sufficiently large to show all pertinent features of the items, their method of connection to the Work and the adjacent surfaces or materials.

C. Number of Copies Required

- 1) Submit the number of copies to be returned plus three copies to be retained by Keystone Design Build.
- 2) If shop drawings require distribution to other Subcontractors, (i.e. elevator shops to electrical contractor), add the appropriate amount at time of submission.
- 3) Where copies are required for inclusion in closeout documents, submit these in addition to the requirements specified above.

2. MANUFACTURERS' LITERATURE

A. Preparation

- 1) Manufacturer's standard schematic drawings.
 - a. Delete information which is not applicable to project.
 - b. Supplement standard information to provide additional information applicable to the project.
- 2) Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data.
 - a. Clearly mark each copy to identify pertinent materials, products or models.
 - b. Show dimension and clearances required.
 - c. Show performance characteristics and capacities.
 - d. Show wiring diagrams and controls where applicable.

B. Number of Copies Required

- 1) Submit the number of copies to be returned plus two copies to be retained by Keystone Design Build.
- 2) If shop Literature requires distribution to other Subcontractors, (i.e. mechanical equipment to electrical), add the appropriate amount at time of submission.
- 3) Where copies are required for inclusion in closeout documents, submit these in addition to the requirements specified above.

3. SAMPLES

A. Preparation

- 1) Office samples sized to clearly illustrate:
 - a. Functional characteristics of product of materials, with integrally related parts and attachment devices.
 - b. Full range of color samples, except when specific colors are specified.
- 2) Field samples and mock-ups
 - a. Erect at Project site at location coordinated with Keystone Design Build, Inc.
 - b. Construct each sample or mock-up complete, including work of all trades required in finished work.
 - c. Remove as directed, unless specific Section allows incorporation in the work after acceptance.

B. Number of Samples required

- 1) Submit all samples in the quantity which is required to be returned plus one which will be retained by Keystone Design Build, Inc.
- 2) After review, approved samples may be used in construction of the Project.

4. COLORS

A. General

- 1) Unless specifically described, whenever a choice of color or pattern is available in a specified product, submit accurate color charts and pattern charts to Keystone Design Build for review and selection.

B. Comparative Analysis

- 1) Unless all available colors and patterns have identical costs, identical performance characteristics, and are identically suited to the installation, completely describe the relative costs and capabilities of each.

5. SUBSTITUTIONS

A. Approval Required

- 1) Where a certain material, equipment or method is described in the contract documents, (inclusive of anything marked with "or Approved Equal"), substitutions must be specifically approved by Keystone Design Build.

6. MISCELLANEOUS

A. Inspections & Test Reports

- 1) Provide identification of whether the report was prepared uniquely for this project or a standard publication of workmanship control testing at point of production.

1. TESTING AGENCY & SPECIAL INSPECTIONS

- a. Keystone Design Build, Inc. will employ and pay for the services of an Independent Testing Laboratory and a Special Structural Inspector, (typically the engineer of record), to conduct all testing as required. It is the responsibility of the Subcontractor to familiarize themselves with testing requirements and coordinate timing of the testing with the project superintendent.
- b. Any deficiencies identified by an inspection and/or testing reports must be corrected in a timely manner which will not affect the construction schedule, and the cost of additional tests required after correcting the deficiency will be borne by the Subcontractor responsible.

2. INSPECTIONS BY THE BUILDING OFFICIAL

- a. A list of inspections required by the municipality where the work is being performed will be posted at the jobsite along with the Building Permit. It is the responsibility of the Subcontractor to familiarize themselves with the inspections required and coordinate such inspections with the Project Superintendent. A minimum notice of 24 hours is required for such inspections unless otherwise advised by the Project Superintendent.

1. TEMPORARY ELECTRICAL

- a. Temporary electricity will be pulled from the owner's service and all utility costs will be provided by the owner.
- b. It will be the responsibility of the Electrical Contractor to bring power to the Contractor's Office, provide a sub-breaker/fuse panel required for construction and to provide temporary lighting. All temporary electrical facilities shall be removed by the Electrical Contractor upon completion of use.

2. TEMPORARY HEATING

- a. Included an allowance for HVAC hook-up of temporary heaters supplied by others.

3. TEMPORARY WATER

- a. Water available on site.

4. TEMPORARY SANITARY FACILITIES

- a. Keystone Design Build, Inc. will provide (1) temporary toilet with weekly cleaning services as needed.

5. CONTRACTOR'S OFFICE

- a. Keystone Design Build, Inc. will provide (1) jobsite office trailer.

6. PROTECTION

- a. Each Subcontractor shall be responsible to protect all work which is to remain including pavements, curbs, turf, plantings, buildings, etc... on the site during their portion of the work.
- b. Temporary partitions inside of the building will be installed as required by Keystone Design Build. It is the Subcontractor's responsibility to protect their work as needed.

7. BARRICADES & FENCES

- a. Keystone Design Build will erect and maintain barricades and fences needed for the duration of the project or at least during multiple disciplines. Should a Subcontractor's work require separate fencing or barricades, it will be the Subcontractor's responsibility to erect, maintain and remove such barricades upon completion of their work.

8. SHORING

- a. Each Subcontractor shall furnish all labor and materials for safely supporting parts of the new work and/or the present structures as may be necessary to complete their work.
- b. Coordinate safety and proper signage with the Superintendent should any shoring need to be left in place while other trades are working in the area while the shoring is required to be in place.

1. SAFETY PROGRAM. All subcontractors, (and Keystone Design Build, Inc.), shall have a safety program in place, meeting the following items.

- A. Written Safety Program Outlining at least the following:
 - 1) Safety Policy.
 - 2) Safety Responsibilities/Supervision on the Job Site.
 - 3) Safety Procedures for:
 - a. Training
 - b. Reinforcement
 - c. Inspections
 - d. Personal Protective Equipment
 - 4) Subcontractor Safety Requirements.
 - 5) Statement of Compliance to State and Federal OSHA Requirements.
 - 6) Incident Reporting and Investigation.
- B. Safety Performance Evaluators
 - 1) Experience Modification Rates.
 - 2) Incident Rates.

2. JOB SAFETY RULES

A. Protective Equipment

- 1) HARD HATS shall be worn at all times.
- 2) GOGGLES or face shields are compulsory when drilling, burning, chipping, grinding, sawing, grouting, and while otherwise required by the Superintendent. WELDING HELMETS are mandatory for all arc welders. RESPIRATORY EQUIPMENT, EAR PLUGS, LIFE JACKETS, and LIFELINES shall be worn as required.
- 3) GLOVES are to be worn when handling material with sharp edges and as directed by your Superintendent. FINGER RINGS AND WRISTWATCHES are a constant hazard and all workers are encouraged to remove them while working.
- 4) SHIRTS are to be worn by all personnel while on company time. No ties, loose or ragged clothing permitted.
- 5) SHOES will be worn that support the ankle and guard against puncture and toe wounds.
- 6) Know where FIRE EXTINGUISHERS, TELEPHONES, and FIRST AID KITS are located and how to use them in emergencies.

1. RECORD DOCUMENTS, (as applicable)
 - A. Maintain a set of Contract Drawings showing any installation that varies from the work originally shown. Upon completion of the project, submit these to Keystone Design Build so that all information may be put into (1) full set of as-built drawings.
2. WARRANTY INFORMATION
 - A. Provide manufacturer's warranty information on all materials, products and equipment.
3. OPERATION & MAINTENANCE MANUALS, (as required)
 - A. Information is to be organized into three ring binders. Identify contents of the binder on the front and the spine of the folder.
 - B. Include the following information:
 - 1) Emergency instructions
 - 2) General maintenance information
 - 3) Spare parts list
 - 4) Wiring diagrams
 - 5) Shop Drawings & Product Data
 - 6) Testing Data
4. OVERSTOCK MATERIALS
 - A. Leave all overstock materials in a location determined by the project superintendent along with a list of all materials. Below is a partial list of required overstock materials:

1) Acoustical Ceiling Tiles	One Box of Tile
2) Ceramic Tile	All unused materials
3) Resilient Flooring	All unused materials
4) Carpet	All unused materials
5) Paint	All unopened or partially open cans
6) Wall-coverings	All unused, (minimum 3%)