DIVISION 1
GENERAL CONDITIONS:
1. The work performed shall be per the terms and conditions of the Owner/Contractor Contract.
2. Scope of Work: Includes all labor, materials and equipment necessary to complete the preparation, demolition, reconstruction, rehabilitation, site work and cleaning to produce a complete project.
   Debris: All debris shall be disposed of legally. Include all costs for disposal of hazardous waste unless noted otherwise.
   Lead-Based Paint: Some or all of the paint may be lead-based. The Contractor shall take all legally required precautions necessary including those required by law to protect persons and property from lead paint hazard. All hazardous waste shall be tested and disposed of in accordance with all laws and regulations. Protection of Property: Protect all adjacent properties and Owner's properties, including, but not limited to, automobiles, trees, shrubs, walks and driveways. Leave Owner's premises clean of paint drippings, splatter, over spray and all debris associated with the work.
3. Definitions:
   Remove shall mean remove and dispose of unless otherwise noted.
   Replace shall mean remove, dispose of and install new unless otherwise noted.
   Install shall mean provide and install new unless otherwise noted.
   Reinstall shall mean remove, clean and reinstall unless otherwise noted.

B. ALL PERMITS REQUIRED
1. Permits: Contractor shall provide all permits required to complete the work described in this scope of work. The building permit must be on site before the first payment request will be approved and a copy of the signed building permit will be required before the final progress payment will be released. The Contractor shall apply for, pay for, obtain and forward copies of the indicated permits to the following agency: _____ Building.
   All work must adhere to the 2013 Energy Code
   All projects permitted after January 1, 2014 require AFCI protection for electrical circuits in areas other than garages, kitchens, and bathrooms.

C. Painting-General Requirements
1. This section provides general requirements for painting specified elsewhere in the Scope of Work. All existing paint shall be assumed to be lead-based unless specifically noted otherwise. The lines below are for the Owner and Contractor to use to record color selection. Include manufacturer, manufacturer color name and manufacturer number.
   Exterior Wall:
   Manufacturer | Color name | Number
   ______________________________________
   Exterior Trim:
   Manufacturer | Color name | Number
   ______________________________________
   Interior Wall:
   Manufacturer | Color name | Number
   ______________________________________
D. 0032-CHANGE ORDER APPROVAL PROCESS
Any requests for substitutions of specified items from the original scope of work and shall include: the manufacturer's specifications; full installation instructions and warranties. The project administrator and Owner must approve the changes prior to the substitution.

E. 0046-PRE-CONSTRUCTION WALK-THRU
The Contractor, the project administrator and Owner will perform a walk-thru of the property together to clarify the work to be performed before construction begins.

F. 0051-INSURANCE REQUIREMENTS
The Contractor shall purchase, maintain and provide the project administrator with certificates of insurance for: Statutory Worker's Compensation and Employers Liability; Comprehensive General Liability Insurance with minimum bodily injury limits of $100,000 per accident and $300,000 per aggregate. The above policies shall name the Owner as insured beneficiary.

G. 0053-WORKER'S COMPENSATION
The Contractor shall purchase, maintain, and provide certification of Worker's Compensation to the Housing Specialist with the following limits: Coverage A - Provide Statutory Minimum Employer's Liability $500,000 each accident; Coverage B - $500,000 disease per employee. Certificates shall indicate contingent liability coverage and Owner's and Contractor's Protective Liability coverage is in force.

H. 0090-1 YEAR GENERAL WARRANTY
Contractor shall remedy any defect due to faulty material or workmanship and pay for all damage to other work resulting from work per the scope of work which appear within one year from final payment. Further, Contractor shall furnish Owner with all manufacturers' and suppliers' written warranties covering items furnished under this contract prior to release of the final payment.

I. 0010-OWNER ACCEPTS SCOPE OF WORK
The undersigned applicant(s) certifies they have participated in the development of this scope of work. After careful review the applicant understands and accepts the work described and has initialed and dated each page of this scope of work.

x__________________________  _______    x_____________________ _______
Applicant                                        Date            Applicant                             Date

J. 0014-CONTRACTOR ACCEPTS SCOPE OF WORK
The undersigned Contractor certifies they have carefully reviewed and agree to perform the work
Leonard Powell Residence
1911 Harmon Street, Berkeley, CA 94702
(510) 316-1077
leonardfpeo@gmail.com
Revised: July 22, 2016

The Contractor shall initial and date each page of the scope of work.

K. WALL NAMING PROTOCOLS
Walls and attached components shall be identified with the letters A, B, C, D. Wall A is always the wall closest to the address elevation or the "street side" of the house. Moving clockwise, the walls are then B, C, D, E, etc. A subset of 4 windows on the D wall, the first would be window is Window 1D. The last is window 4D. Location markers may also be combined with the adjectives: left, right, upper, lower. For example: Patch the upper right side window casing at opening D3.

L. EXTERIOR PREPARATION - LEVEL 1
Provide work site preparation in accordance with Table 8.2 of the HUD Guidelines for valuation and Control of Lead-Based Paint Hazards in Housing.

M. INTERIOR PREPARATION - LEVEL 1
Provide occupants protection and work site preparation in accordance with Table 8.1 of the HUD Guidelines for Evaluation Control of Lead-Based Paint Hazards in Housing. (Provided per request)

N. LEAD HAZARD REDUCTION PROCEDURES TO BE EMPLOYED

EXTERIOR
02710-Subdrainage System
1. Sewer Lateral Replacement
Excavate using the "open cut" or "trench" method to gain access to the area surrounding the damaged portion of the pipe. A backhoe or vacuum excavator may be used to open and refill the work area. Remove and properly dispose of the existing damaged line prior to installation of the new sewer line. During excavation, insure the site is properly secured and marked-off with yellow hazard tape tied to supports. Use clean sand or pea gravel for bedding the new sewer piping or approved bedding specified by the building department. After the drain pipe is fully bedded on and under sand, backfill the remainder of the trench by pushing the excavated soil back in place, leaving the site "rough graded" to a smooth surface. If required, seed the area excavated with a fast-growing fall-seeding grass seed and mulch to help hold the new seed in place until grass had sprouted. To accommodate the clients access to the street, a temporary one step ramp will be installed for the duration of the construction.

Sewer Replacement Requirements:
The new sewer line materials shall be cast iron, Schedule 40 ABS or PVC plastic pipe. (CPC 701.1)

- The new sewer line must be buried a minimum of 12" below finish grade. (CPC 718.3)
- The sewer line must be installed with a minimum 2% slope or ¼" to the foot. (CPC 708).
- Each lateral shall have a standard City cleanout located in the City right -of -way or easement terminating in an approved box and covered at grade level.
- Property line clean-outs must be 4” minimum. Must have a building clean-out within 2’-0” of the building and terminating at grade level and another cleanout must be installed at the

3
property line. Additional clean-outs are required at the end of the line, for each aggregate horizontal change of direction exceeding 135 degrees, and a developed length exceeding 100 feet. (CPC 707.5 and 719)

- Each clean-out shall be installed so that it opens to allow cleaning in the directions of flow.
- The sewer piping shall be sized from table 703.2 and table 717.1 of the 2013 California Plumbing Code.
- Any changes of direction in sewer piping shall conform to sec 706 in the 2013 California Plumbing Code.
- The sewer piping shall have a minimum cover of 12 inches of fill and be laid on a firm bed for its entire length.
- Use approved transition fittings in joining unlike materials and pressure test the system by completely filling with water from the sewer’s lowest point to its highest.
- After the new sewer lateral has been approved and signed off by the building department, the contractor will obtain a Sewer Lateral Certificate from the City of Berkeley.

4. Location:
   a. Sewer line running from the city clean out in the public right of way to the residence connection

02400 DRAINAGE
1. French Drain-Perimeter
   Install a french drain by breaking up concrete slab section at the entire perimeter of the building. Install 4” perforated drain pipe, have a drain line slope away from the building to drain into the drain waste vent system, backfill with gravel. Grade and compact gravel to 95%. Apply a bonding agent per manufacturers specs on exposed concrete. Pour a 4”, 2200 psi concrete slab to match elevation of surrounding slab. Float and steel trowel finish.
   2. Location:
      a. At the east and west south end of the building

DIVISION 4 - MASONRY
04880 - Masonry Fireplaces
1. Chimney-Remove and Repair Opening:
   Remove brick fireplace, including facial, hearth and firebox. Frame wall, roof and the floor where hearth and firebox is removed. Hang, tape and finish 1/2” gypsum board. Texture, prime and paint per the owners choice of texture and color or to match existing. Exterior siding to be repaired to match existing and primed and painted. Replace sheathing with CDX plywood of matching thickness. Staple 15 lb felt. Install preformed aluminum and drip edge. Replace all flashing and roofing material that has been removed with materials to match existing as closely as possible.
   2. Location:
      a. Chimney running from the roof to the basement through the center of the building

DIVISION 6-WOOD AND PLASTICS
06100 Rough Carpentry
1. Seismic Bracing of Cripple Wall in Crawl Space:
   Interior bracing: Basement framing to receive panels or use ½” CDX plywood with ½” diameter vent holes at the top and bottom of each stud space for shear resistance at entire perimeter wall and along both sides of the cross wall. Shear panel nailing should be with 2x4 pressure treated and new blocking, bolting and sheer wall for the existing footing and framing.
Leonard Powell Residence  SCOPE OF WORK
1911 Harmon Street, Berkeley, CA 94702  leonardfpeo@gmail.com  October 15, 2015
(510) 316-1077  lhanif@hotmail.com  Revised: July 22, 2016

Install new ⅝” Allthread 48” o.c. at the shear walls with 3”x3” bearing plates over 2x4 blocks. Use HTT5 at the panel ends. H2.5 at each ceiling joist over ½” plywood shear panel and 10d at 4” o.c. at edges and 8” o.c. in the field. Elevation of Section AA at sheer wall. Install new ⅝” Allthread bolts at 48” o.c. epoxied into concrete with 7” minimum embedment. Use 3x3x⅛” bearing plates and utilize blocking over mudsill at sheer walls. Double 2x4 at panel ends with HTT5 minimum at panel ends.½” CDX plywood nailed 4” o.c. at perimeter and 8” o.c. in the field.

2. Location:
   a. Basement of the house

3. Trim, Exterior-Install, Nearest Available Profile
   Remove and properly dispose of exterior trim and install new trim with profile selected from stock of full service lumberyard to match existing as closely as possible. Prime and paint. Color to match owners choice of color.

4. Location:
   a. Exterior trim on south facing corners of addition where visibly deteriorated
   b. Exterior water table trim on east facing wall

5. Railing-Wood Repair
   Tighten loose balusters and replace broken and missing ones and ensure it is code compliant.
   Create a 3'6" high railing between 4"x 4" end posts. Tighten top and bottom rails and posts.
   Match existing parts with replacements as closely as possible.

6. Location:
   a. Back steps handrail

7. Siding-Hardiboard Replace
   Remove damaged siding to joint over nearest stud. Nail 1/2"x10" primed hardboard siding with galvanized or aluminum siding nails penetrating at least 1” into stud. Stagger joints in adjacent pieces and center all butt joints over studs. Replace all damaged flashing over doors and windows. Remove and replace all trim, to match as closely as possible, at all openings and corners. Prime and paint, color to match existing trim as closely as possible.

8. Location:
   a. East wall below water table trim
   b. Rear north wall where area was partially completed
   c. North wall next to crawlspace entry

DIVISION 7- THERMAL & MOISTURE PROTECTION

07210-Building Insulation
1. Blown-In Insulation
   Use a stud finder to locate all of the bays in between your wall studs where you will be filling with insulation. Do not fill bays that contain chimneys or lighting fixtures. The heat from these items can cause a fire hazard when in contact with insulation. Using a hole saw, drill holes into every bay on each exterior-facing wall of your house. Your hole saw diameter should be a fraction of an inch larger than the nozzle on your insulation blower. You should drill the holes near the ceiling on each floor insuring the holes are just below the top plate of each wall. Place the nozzle of the blower into each hole and blow in the insulation. Wrap a rag around the nozzle, sealing it to the wall to prevent insulation from blowing back out through the hole. Hold the rag and nozzle tightly in place before you start the machine. When the bay is completely filled, the machine will stop blowing insulation and sound like it is struggling. When all the bays are filled with insulation, you need to patch the holes. Use a filler such as an expanding foam sealer. Push
the loose-fill insulation into the hole, forming a little pocket. Shoot the foam sealer into the hole so that a small mushroom of foam forms on the outside of the hole. When the foam is completely dry, cut off the mushroom head flush with the outside surface. If you drilled holes from the outside of the house, replace the exterior surface to match existing. If you drilled holes from the inside of the house, use 2 or 3 coats of drywall compound to fill in the pores on the foam patches. Paint the wall surfaces as needed, making sure you put on the appropriate primer coat. Repaint to match existing.

2. Location:
   a. All exterior walls-blown in insulation can be completed at exterior walls

07510 Roofing
1. Cool Roofing-General Requirements Roof
   Unless otherwise specified, all material shall match existing as closely as possible for material, style and method of installation. The roof covering must have a solar reflectance of .65 or higher or have special coating to increase the solar reflectance of roofing materials in the infrared range through the application of the coating. Flash and caulk all adjoining surfaces and make weather tight. Replace all flashing, roofing accessories and nails using rust-resistant material. Install all roofs in one continuous operation. Protect the house contents at all times from exposure to the elements.

2. Tear Off and Re-roof Shingles
   Remove and dispose of all roofing and defective sheathing. Apply one layer of 30 lb. asphalt saturated felt over the entire roof surface. Install new dimensional shingles according to manufacturer's specifications. At all valley areas, shingles will be woven with the shingles on the adjacent slope. Cut the sheathing at the ridge approximately 1" on each side of the roof and install a ridge ventilation system. Install SBS modified bitumen rapid-ridge high profile hip and ridge shingles as per manufacturer's specifications.

3. Location:
   a. Remove and replace all roofing material and components of the house

07700 Roof Specialties and Accessories
1. Gutter, 5" Aluminum-Replace
   Remove existing gutter. Install new 5" pre-painted aluminum ogee gutters at the drip edges of the building. New gutters will be installed using gutter brackets (not spikes and ferrules).

2. Downspout-Aluminum, Rectangular
   Remove the downspout and install rectangular new 2" x 3" pre-painted aluminum downspouts in proper locations. Manufacturer's standard color as selected by Owner.

3. Location:
   a. All accessories to be removed and replaced in conjunction with roof(s) replacement

INTERIOR:
DIVISION 2-SITEWORK
02230 Demolition
1. Demo Interior-Walls, Ceiling & Building Components Remove all wall surfaces and underlying wall surfaces to the bare studs, includes plaster, lath and light fixtures from wall and ceiling area and building components to be replaced or removed.

2. Location:
   a. Downstairs Bathroom
   b. Kitchen
DIVISION 06 - WOOD, PLASTICS, COMPOSITES
06 10 00 - Rough Carpentry
  1. Partition-2"X4" Non Bearing
     Frame a wall using 2"x4" studs 24" on center with single top and bottom plates.
  2. Location:
     a. Wall between upstairs and downstairs entries

DIVISION 8-DOORS & WINDOWS
08200 Wood & Plastic Doors
  1. Door-Exterior, Replace
     Remove existing door and properly dispose of construction debris. Install a fiberglass, insulated
doors to match existing as closely as possible. Manufacturer components include the jamb, interior
and exterior casing, spring metal weather stripping, interlocking threshold, one entrance and one
mortised deadbolt keyed alike. Prime and top coat the door to match the existing as closely as
possible or per owners choice.
  2. Location:
     a. Front entry door

08210 Doors & Frames
  1. Door-Replace Panel Door
     Remove and properly dispose of existing door and wet scrape trim. Install a new panel door
Douglas Fir to match existing single panel doors as closely as possible. Doors shall be complete
with hinges, and lockset. Install new trim, profile to match existing. Prime and paint door, frame
and trim. Color to match existing as closely as possible.
  2. Location:
     a. Downstairs Bathroom door

08600 Wood & Plastic Windows
  1. Casement Window Replacement:
     Remove existing sash and hardware. Wet scrape interior and exterior casing, sill, stool, frame and
associated trim. Prime sill with top quality oil based primer. Prime and paint all scraped areas.
Install dual glazed, wood casement sash, complete with hardware. Prime and paint to match trim.
  2. Locations:
     a. Downstairs windows – Wall B, Windows B1, B2, B3 & C1

08550 Wood Window
  1. Window Repair
     Repair window without replacing sash. Replace broken and cracked glass with double strength
glass. Remove loose glazing compound and reglaze. Repair and adjust bottom sash to open and
close smoothly, with brass plated lifts and locks, sash chains or nylon reinforced cords and new
wheels for the cord pulleys. Raise the top sash, secure it in place with exposed finish nails or
screws and caulk.
  2. Location:
     a. 3 double hung sash windows in downstairs Living room

08560 Fiberglass Window
  1. Single Hung Fiberglass Replacement:
     Remove sash and parting bead. Wet scrape the interior and exterior casing, sill, stool, frame and
the associated trim. Prime sill with top quality oil based primer. Prime and paint all scraped areas,
color as selected by Owner. Install dual glazed, fiberglass sash windows. Prime and paint to match
trim.
  2. Location:
a. Window in pantry on west wall  
b. Window on first floor rear north room, west wall

DIVISION 9-FINISHES

09210-Gypsum Plaster
1. Drywall-General Requirement
   Unless otherwise specified, match surrounding as to materials, thickness, style and method of installation. All materials shall be applied dry with the temperature between 55-100 degrees F. Provide casing beads and install with non-drying mastic at all exposed edges, corners and abutments. All areas exposed to studs or ceiling joist to have insulation installed as required (R-19 for walls and R-30 for ceilings). Set all nail and screw heads. Apply tape and filler. Feather all edges. Wet sand and prepare surface for paint.

2. Wall/Ceiling Drywall Demolition:
   Remove drywall on walls and ceiling in the largest pieces practical. Protect containment plastic with plywood sheet. Mist small debris with water. (Partially duplicated in 02230 Demolition)

3. Location:
   a. Living room ceiling
   b. Dining room ceiling
   c. All walls and ceiling of the downstairs bathroom
   d. All walls and ceiling of the kitchen
   e. Wall between upstairs and downstairs entries

4. Moisture Resistant Wallboard-1/2"
   After establishing any required floor containment with polyethylene sheeting, remove and properly dispose all plaster and/or sheetrock from ceiling. Hang, tape and 3 coat finish 1/2" moisture resistant wallboard using screws at 8" o.c. and adhesive beads along each framing member. Seal all penetrations with siliconized acrylic caulk. Prime and top coat with alkyd enamel paint. HEPA vacuum any visible paint chips, dust and debris. Remove/reinstall all electrical components as required.

5. Location:
   a. All walls and ceiling of the downstairs bathroom
   b. All walls and ceiling of the kitchen

6. Gypsum board-1/2"
   Hang, tape and 3 coat finish 1/2" gypsum board using screws at 8" o.c. and adhesive beads along each framing member. Prime and paint per owners choice.

7. Location:
   a. Living room ceiling
   b. Dining room ceiling
   c. Downstairs bedroom wall where chimney is removed

09300 Tile
1. Ceramic Tile-General Requirements
   Install ceramic tiles using the appropriate adhesive. Clean surplus adhesive from joints prior to grouting with a latex or epoxy enhanced grout. Clean all tile face and apply silicone sealant to tub surrounds and bath floors.

2. Ceramic-Floor
   Install ceramic floor tile and preformed trim over 1/2" fiberglass reinforced Portland cement board with troweled adhesive. After 24 hours drying time, apply latex based, Portland cement grout. Remove all excess grout & apply mildew resistant white silicone caulk at all seams, fixture lips & pipe penetrations. Owner's choice of tile and grout colors.
3. Ceramic Wall Tile
Install owner's choice of ceramic wall tile over a sound surface with troweled adhesive. Include preformed base, cap, stop, return and trimmer pieces to complete installation. After at least 24 hours drying time, apply latex based Portland cement grout. Clean all excess grout and apply sealant.

4. Location:
   a. Bathroom walls and floor, include coving. Wall tile to top of door height in the bath and 4’ wainscot on all other walls

09620 Wood Flooring
1. Floor Refinish-Oak Strip Flooring
Remove damaged flooring or other wood trim at finish floor level. Install oak strip flooring to match existing as closely as possible per standard industry practices. Renail all loose floorboards, fill holes. With floor sander, sand all rooms where wood floor are located including any closets. Sanding hardwood floors with a course paper (20 to 36 grit). After the rough sanding, change to a medium (50-60) grit. Go over the entire floor the same way. After this pass check again for cracks/holes using matching wood putty to fill them in and countersink all visible nailheads. For the final sanding, use a fine (80-100 grit) abrasive and finish with a palm sander around the perimeter to feather sanding areas. Vacuum the room thoroughly, including the walls and ceiling. Avoid using a damp rag because moisture will raise the grain of the exposed wood. Buff the floor (going with the grain) using a fine abrasive screen (100-120 grit) to help tighten the wood grain before applying floor finish. Finish with a coat penetrating floor sealer and 3 coats polyurethane varnish. Sand the floors with a very fine grit sandpaper and HEPA VAC between each coat of floor finish. HEPA VAC and tack rag across the floor to pick up all the dust before applying the final coat. Stay off the finish and avoid stirring up any dust while the finish cures.

   2. Location:
      a. Living room
      b. Dining room
      c. Front entry hallway

09650-Resilient Flooring
1. Floor - Linoleum Flooring
Remove and properly dispose of existing linoleum at finish floor level. Install Marmoleum natural linoleum flooring per owners choice and install per standard industry practices. Insure all seams are heat welded per industry standards.

   2. Location:
      a. Kitchen

09900 Painting
1. Interior Preparation - Level 1
Provide occupants protection and work site preparation in accordance with Table 8.1 of the HUD Guidelines for Evaluation Control of Lead-Based Paint Hazards in Housing. (Provided per request)

   2. Prep and Paint Surface-Gloss
Remove/cover hardware, fixtures, accessories not to be painted. Scrape loose, peeling, cracked and blistered areas and all wall paper. Clean oil, grease, fungus, dirt and dust from surfaces. Fill holes and cracks. Prime all new materials and spot prime existing with acrylic latex primer. Top coat with owner's choice of premixed acrylic latex. Replace or uncover hardware, fixtures and accessories. Include trim, door and window frames in rooms called out for painting.

   3. Location:
Leonard Powell Residence  
1911 Harmon Street, Berkeley, CA 94702  
(510) 316-1077  
leonardfpeo@gmail.com  
Revised: July 22, 2016

SCOPE OF WORK

1. Surface, Interior-Stabilize, Alkyd


2. Location:
   a. Living room
   b. Dining room
   c. Front entry hallway
   d. Downstairs hallway

DIVISION 10-SPECIALITIES

10800-Toilet, Bath and Laundry Accessories

1. Modular Shower System-per plans

   Remove existing shower stall and install a Shower Module system with pressure balanced, scald guard valve, faucet, supply risers, shut-off valves and all required waste connectors to complete the installation and trim kit and a soap dish molded the wall.

2. Vanity- Per plans

   Install a vanity complete with plywood cabinet, cultured marble top, dual control, brass bodied, single lever faucet, supply risers, shut-off valves and all required waste connectors to complete the installation.

3. Medicine Cabinet-Recessed

   Remove existing medicine cabinet. Install a recessed medicine cabinet with hinged plate glass mirror per owners choice and two shelves.

4. Accessory Set-6 Piece Chrome

   Install a bathroom accessory set consisting of two 24" towel bars, soap dish, tumbler holder, grab bars and toilet paper holder.

5. Commode-Replace

   Install white 1.28 gpf toilet per owners choice or approved equal. Include matching seat, supply pipe, shut-off valve, flap valve and wax seal. Use 12" rough-in to replace close coupled commode unless ADA compliant toilet, 17" to 19" height and dual flush mechanism is recommended

6. Location:
   a. Downstairs Bathroom

DIVISION 11-EQUIPMENT

11450-Kitchen Equipment

1. Range Hood Ducted Vent (200.00 Allowance)

   Remove and properly dispose of existing hood. Install a ducted enameled range hood with integral controls and light capable of 100 cfm at 70 somes. Include metal vent and roof or wall cap/damper assembly, using #14 copper Romex. Owner's choice of color.

2. Refrigerator: Energy Star Rated System (500.00 Allowance)

   Remove and properly dispose of existing refrigerator. Install an Energy Star rated refrigerator to match existing. Provide operating manual.

3. Range-Gas: Energy Efficient System (500.00 Allowance)

   Remove and replace existing gas range. Install an energy efficient system with pilotless ignition. Install flue or venting per manufacturer’s recommendation. Provide operating manual.

4. Location:
DIVISION 12-FURNISHINGS
12200 Cabinets & Storage
  1. Demo Cabinets
     Remove kitchen cabinets by withdrawing fasteners to minimize wall damage. Vacuum wall and
     floor surfaces. Remove kitchen cabinets on all walls of the kitchen and replace with formaldehyde
     free MDF made with exterior grade resins per owners choice of cabinets.
  2. Cabinet-Base, Wood
     Remove base cabinets. Install base cabinet. Frame-solid birch or ash stiles, 1/4" veneered
     plywood sides and metal or plastic corner bracing. Doors-solid birch or ash stiles and veneered
     plywood panels. Drawers-wood or composition materials with drawer fronts to match doors.
     Owner's choice. Prep and finish.
  3. Cabinet-Wall, Wood
     Remove wall cabinets. Install owner's choice of wall cabinet. Field measure, level and plumb,
     screw to studs. Frame-solid birch or ash stiles, 1/4" veneered plywood sides and metal or plastic
     corner bracing. Doors-solid birch or ash stiles and veneered plywood panels. Owner's choice of
     color. Prep and finish.
  4. Counter Top & Sink-Custom
     Dispose of existing counter top and sink. Field measure and upon installation of new cabinet
     doors, fabricate and install a granite counter top per clients choice, to include a 4” backsplash.
     Provide cutout for an under mount sink as selected by the owner.
  5. Faucet-Kitchen Dual Control
     Supply and install new Grohe or approved faucet per clients choice with a new p-trap assembly
     supply lines, and shut-off valves including metal body faucet with 15 year drip-free warranty.
  6. Location:
     a. Kitchen cabinets and counter top

DIVISION 15-MECHANICAL
15140 - Domestic Water Piping
  1. Replumb
     Install new minimum of type M copper pipe for all the water service. Pipe and Fitting Materials
     within the building: To conform to ASTM B 306. Piping 3-inches and smaller to have joints
     soldered. Fittings: Soldered joint, wrought copper fittings, conform to ASME. Support and
     protect all pipes.
  2. Location:
     a. All plumbing fixtures to the new bathroom and kitchen
  3. Water Heater-40 Gallon Gas
     Build an exterior shed to meet code requirements to install a 40 gallon, glass lined, high
     recovery, insulated to R-7, gas water heater with a 10 year warranty. Include pressure and
     temperature relief valve, discharge tube to within 6” of floor or to outside of structure, vent,
     thimble, and gas piping from shut-off valve to fixture. Dispose of old water heater in code legal
     dump.
  4. Location:
     a. Hot water located in rear of kitchen

15600 Power Or Heat Generation
  1. HVAC-General Requirements
     All materials and equipment shall be new and operate safely without air leakage, noise or
vibration. All penetration of building components shall be neat, sleeved and fire stopped and shall not compromise structural integrity. Contractor shall submit a diagram showing equipment selection and proposed layout of distribution system the Manual J Calculations. Duct leakage testing will be performed prior to the final sign off and the results provided to the project manager for final approval. Testing will perform to tolerance levels a positive blower test of 25 pascals.

2. Furnace-Gas: Energy Star Rated System
Remove and properly dispose of two existing floor furnace and all associated components. Install an Energy Star rated system sized per the heat loss and cooling analysis and not to exceed the recommended sizing from the ACCA Manual J Residential. “Manual J is the official standard for residential load. The contractor must submit documentation of the ACCA Manual J calculations supporting the recommended sizing for the system. Thermostat to be located at least 10’ from the return air and install only high performance registers wherever new registers are required.

3. Location:
   a. One furnace for the lower level located in the basement

DIVISION 16-ELECTRICAL

16050-Electrical

1. Electrical-General Requirements
All materials shall be UL approved and/or 2013 California Electrical Code rated. All drilling, cutting and fastening shall be neat, true and not critically damage framing members. All patching shall match the existing surface. Replace all wiring, devices, motor and fixtures reusing as much as possible and within the existing service capacity to the current edition of the 2013 California Electrical Code. Arc-Fault Circuit-Interrupter (AFCI) Protection is required anytime a receptacle is replaced in one of these locations for dwelling unit “family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas.

2. Rewire Electrical Deficiency
Remove and safely dispose of non code compliant wiring to be replaced with modern wiring, a grounding-type receptacle protected by a GFCI device (circuit breaker or receptacle). The following are the minimum requirements for rewiring and are applicable to all types of buildings.

Residential Buildings.
The basement may be wired either in metal-clad cable (BX) or fully grounded nonmetallic sheath cable (Romex) where permitted. In unenclosed spaces where the wiring is run at right angles to wood joists, all wiring shall be run through holes bored in the approximate center of the joists, except that the wires may be stapled to the side of the joists, sill, plate or center beam. The basement shall be lighted by a minimum of one light for each three hundred square feet and one light for each room.

3. Fixture-Vent
Install a Panasonic Whisper Ceiling™ 110 CFM 4” Duct Ceiling Mounted Fan exterior ducted vent fan with damper capable of 60 cfm, controlled by 2 manufacturer- supplied switches. Fish all wire and repair tear out.

4. Locations:
   a. Downstairs bathroom

5. Interior LED Light Fixture
Install a ceiling mounted, ENERGY STAR qualified, UL approved, light fixtures controlled by the
8. Location:
   a. Dining room ceiling
   b. Kitchen ceiling
   c. Downstairs bathroom
9. Circuit-Interrupter (AFCI)
   Protection is required anytime a receptacle is replaced in one of these locations for dwelling unit “family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas.
10. Electric Service-100 Amp
   Dispose of old electric service to code legal dump. Install a residential, 100 amp, single phase, 3 wire electric service. Include a main disconnect, 12 circuit panel board, meter socket, weather head, service cable, and ground rod and cable. Rewire where possible to easily access. Caulk exterior service penetration.
11. Location:
   a. New service to the house
12. GFI outlets:
   Ground fault interrupter circuits are recommended on kitchen outlets near the sink and all bathroom and exterior outlets. Defective or missing GFI outlets were noted at the following locations.
13. Smoke Detectors
   Smoke detectors are recommended at the following locations: Each sleeping room, each room leading to a sleeping room and at least one at each level. The building department may require these be installed in conjunction with any remodeling work that is done and hardwired with a 10-year lithium battery.
14. Carbon Monoxide Detector
   CO devices must be installed outside each sleeping room and on each level in accordance with applicable State Fire Marshall requirements and local building codes and per manufacturer’s instructions. CO devices must have a distinct audible sound. If it is a combo device (i.e. a fire/smoke and CO detector), the device must have separate distinct audible sounds for each function.
15. Locations:
   a. Per code

CLEARANCE EXAMINATION
1. Using a trained and certified lead paint inspector, a lead hazard risk assessor, or if approved, a sampling technician, one hour after completion of all lead hazard reduction, renovation and maintenance work, conduct a visual assessment for evidence of remaining paint chips, visible dust debris and residue. Randomly select four (4) floors, two (2) window sills and two (2) window troughs to dust wipe test as per protocol in the HUD Guidelines. Submit the dust samples, plus a blank sample, to an EPA-accredited lead analytical laboratory for determination of lead content. Provide the owner, occupants and this agency with the clearance report and a "Notice of Lead Hazard Reduction" within 15 days of achieving final clearance, in accordance with 23 CFR Part 35.

END OF SCOPE OF WORK