Site History
Transportation has played an active role in the growth of Albuquerque beginning with the 1598 inception of El Camino Real de Tierra Adentro later known as US Highway 85 and Route 66, part of a U.S. Transcontinental Highway system, all historic journey’s down 4th street and CUATRO’S front door. It is fitting that the business that sprang up on the site was a car dealership. With commercial businesses supporting the automobile on 4th street, the surrounding neighborhoods of modest single family residences were homes for a growing community. 4th street has gone through the same changes as Albuquerque’s downtown, decline, “urban renewal” and gentrification. An urban rebirth has recently begun at Albuquerque’s crossroads, giving rejuvenation to downtown’s urban character with the renovation of commercial properties and new construction of loft style apartment buildings, people want to live again in the downtown core.

Neighborhood Context
North 4th Street is a metropolitan redevelopment AREA (MRA). In 2006 the City established the North Fourth Street Rank III Corridor Plan to help guide that redevelopment. As part of that Plan, CUATRO’S segment of 4th Street was designated as the North Fourth Transit Oriented Development District, whose goals are to create a highly livable and distinctive place, provide safety of all street users, support Urban Revitalization and Private Investment in retail and high density housing, and maximize landscaping throughout the corridor. CUATRO is part of the Wells Park Neighborhood which is undergoing a resurgence of interest. Small homes attract individuals with modest needs interested in moving back to Albuquerque’s heart. This has drawn artists and non-traditionalists to take root and fix things up. Empty nesters and seniors who have deep roots there do not have options to stay in the neighborhood.

We know that there is a desire from “Generation Z” to live in urban areas, carless, where mass transit, bicycles and two feet can get you to where you want to go. CUATRO is designed to serve “The Baby Boomers” who are 55 and older of modest income. As with the four seasons of the year, they are moving into the fourth season of life, and CUATRO is designed to meet the challenges that come with age. Our goal is to create a high density transit oriented development that supports seniors in the area desiring to “stay put” and those looking for the ease of walking, biking and taking advantage of public transit. That forms the basis of CUATRO’S home on 4th.

Community Involvement
The Wells Park and Sawmill Neighborhood Associations have been actively involved in the approach CUATRO would take in its design. Public meetings were held on several occasions over the last three years to discuss the community’s needs and potential development of the site. The project, originally conceived as townhomes fronting the side streets and an apartment building facing 4th, later a high density 5 story apartment block encompassing the entire block into what has evolved into our design. The scale of 4th street grows taller the closer you move to the City’s core. A monolithic block long structure is not appropriate for the neighborhood.

Building Design
The contemporary New Mexico vernacular building style holds elements comprised of human scaled materials beginning with burnished CMU on the first floor capable of withstanding public interaction. Building proportions, along with horizontal siding, recessed windows, stucco, varying colors, and balcony details, afford a sense of personal identity for the residents all in context with the residential scale of the neighborhood. The mass of the building is broken up into three small buildings, creating small communities linked by sky bridges, elevators and stairs. Community courtyards separate each building, forming a light well maximizing the amount of fenestrations for each apartment allowing more light and air. The parking courtyard tree lined walls and
Landscaping form a solar and wind buffer from the alley and adjoining neighbors to the west, allowing a transition area to exist between the existing single and two story businesses and the complex. The parking court also allows rain and snow to infiltrate back into the ground through the use of permeable paving which will contribute to the restoration of a healthy ecosystem.

A wide pedestrian “Portal” sheltering a drought tolerant tree lined public sidewalk provides protection from the elements for foot traffic moving along 4th street interlacing CUATRO with the street where our transit connection occurs. The colonnade breaks the first floor mass allowing a connectivity into what is going on inside. Pedestrians can get a glimpse into the courtyards through an undulating rebar lattice fence with trumpet vines and honeysuckle adding color and fragrances. At night when 4th street becomes more dormant, building and community activities are on view adding safety to the street.

Building 2 forms the main entry for the public and residents alike. As future residents enter the lobby they have controlled access to the Leasing Office where a living room greets them with lounge seating for the TV or connectivity to the internet and computer room with manager assistance if needed. The kitchenette allows the manager a sales area and resident’s outdoor BBQ access. On the other side of the lobby is the community conference room and bathrooms all having direct views on to 4th street and the courtyards reinforcing a safe living and street environment.

A future resident would begin their tour of the complex walking through the controlled access elevator core, mail and a peek out onto the controlled access auto court where ½ of the vehicles are protected from the elements. Cyclist will see the bike storage and repair room. Resident storage areas are on this level. CUATRO becomes a part of the community with activity areas fronting 4th street engaging the neighborhood.

Activity zones begin in Building 1 with a community Kitchen Garden and potting shed for “green thumbs”. Planting beds are sitting and standing height allowing an easier access for the senior residents. The Wellness Room and Social Service Coordinators office are here. They can see into CUATRO’S multi-purpose room utilized by the residents for a game of pool, cards, pot-luck dinner or movie night. This area connects to the south courtyard where you can sit with friends to enjoy company, BBQ, take on a game of croquet or sharpen up on their putting on a synthetic lawn. The north tower courtyard allows both BBQ and more meditative activities in the sunken area with white noise created by the water feature encouraging bird bathing. Building 3 holds the exercise, aerobics and dance room also used for shuffleboard. Courtyards are protected from the harsh summer sun by the glass sky bridges with west facing undulating metal solar shades.

One of the needs of our residents who rely on government commodities and the Food Bank is that their “withdrawal” is monthly, creating the need to pick up a months’ worth of supplies, haul it home and then find a place to store it. CUATRO’S “Goods Store” will become a “Branch Food Bank” for the residents. Management will link with food service providers depositing qualified residents supplies at the store. CUATRO will then have set hours for resident “withdrawals” over the month eliminating the hassle of hauling and storing.

As one proceeds up into the building they will see wide halls with grab rails allow plenty of leeway for movement in electric scooters, wheelchairs, walkers and canes. Lighting and windows are designed to contend with glare and proper light levels. Towers forms “neighborhoods” centered on a core that encourage resident interaction and provide each a unique, identifying theme and color. Connectivity with your 6 to 9 neighbors forms friendships and supports safety. The laundry room for residents is connected to a roof top observation amenity for dining, socializing and watching sunsets. The solar shade undulates over the area providing protection from the elements.

All of the flats have direct solar access with metal awnings above windows to ensure that residents have warm, comforting sunlight in winter, while minimizing unwanted glare and heat gain in the summer. Private balconies are provided for everyone where their personal identity can be seen.

Bridges have passive cooling towers connected to solar chimes to provide daytime cooling. Energy costs for the public spaces are supplemented with the use of a solar array and passive hot water heating on the roof.
CUATRO
An Affordable Housing Apartment Complex

Developed by

G.A.H.P.
Greater Albuquerque Housing Partnership

OUTLINE SPECIFICATIONS

January 30, 2014
DIVISION I   GENERAL REQUIREMENTS

A. Summary of Work: CUATRO, An Affordable Senior Apartment Complex ("the project"), is a proposed 56-unit senior Low Income Housing Tax Credit (LIHTC) development on a .98 acre parcel. Associated site and infrastructure development that includes utilities, driveways, parking, walkways, and landscaping. The scope of work shall include complete buildings and site work as detailed below and on the drawings.

B. Energy Efficient and Green Construction Practices: The project is designed to meet the minimum design criteria of a maximum 70 HERS index, and (at a minimum) LEED for HOMES LEED-H Certification. The Contractor has been a party to the LEED-H strategy meetings. A third party inspector will conduct inspections and testing on all residential units and the common area; including blower door, thermal bypass, infrared camera and other mechanical testing to insure compliance with the criteria above. Coordinate with the third party inspector. All corrective measures on defective workmanship or materials required to meet the LEED-H criteria are included within the scope of work. The LEED checklist is attached.

C. Submittals: All items listed in construction documents shall be submitted to the Architect for review and written approval prior to fabrication or purchase. All LEED-H related products, procedures, checklists and systems require submittal via a project website.

D. “Or Equal” Clause: Where a material, article or piece of equipment is identified on the drawings or specifications by reference to manufacturers' or vendors' names, trade names, catalogue numbers, etc., it is intended to establish a standard; and, any material, article, or equipment or other manufacturers and vendors which will perform adequately the duties imposed by the general design will be considered equally acceptable provided the material, article, or equipment so proposed, is, in the opinion of the Architect, of equal substance and function. It shall not be purchased or installed by the Contractor without the Architect's written approval.

E. Provide instruction at Substantial Completion and submit Operation and Training Manuals in three copies for:

1) Building occupants (with DVD video recorded instruction).

2) Building Manager (with required training session and DVD video).

F. Durability Management: Coordinate with quality management procedures and provide durability documentation as required by (LEED-H ID 2.1, 2.2 & 2.3).

DIVISION III   CONCRETE
A. Concrete floor slabs, foundations, and stem wall: 2,500 psi type 2 concrete over earth compacted to 95% of maximum density. 3000 psi @ pavements. 25% fly ash content, locally-sourced cement and aggregate per (LEED-H standards, MR 2.2).
B. Smooth-troweled slabs at all interior exposed concrete areas. Saw-cut 1/8” deep control joint pattern. Install radon-mitigation system below residential slabs per (LEED-H prerequisite EQ-9.1).
C. 1” lightweight gypcrete concrete at 2nd floor, poured over ½ “ Acoustimat over ¾” OSB deck with double bottom wall plates used as dams, typical new construction.
D. No motor oil or other petrochemical shall be used on any form work as a bond breaker.

DIVISION IV MASONRY
A. First floor structure, exterior walls, site privacy walls/refuse enclosure: reinforced CMU. Use locally available material. Finish: Burnished.

DIVISION V METALS
A. Reinforcing steel: ASTM, A-615 and 616. Rebar also utilized for site fence pickets.
B. Mesh reinforcement sheets: ASTM A-185.
C. Steel plates: ASTM A283.
D. Steel angles: ASTM A36.
E. Bolts, nuts, washers: ASTM A325, galvanized at exterior locations indicated.
F. Framing connectors: Simpson or equal.
G. Pre-manufactured steel stairs (with precast concrete treads and steel risers, tube steel handrails and guardrails. Submit shop drawings. ASTM A 36.
H. Window Awnings: 20 gallon galvanized perforated panel flat and box rib, McNichols Company or equal.

DIVISION VI   WOOD, PLASTICS AND COMPOSITES
B. FRAMING/ROUGH CARPENTRY: Minimize framing waste per (LEED-H Prereq MR 1.1

1) Concealed headers and beams where indicated: "Parallam" and "Microllam" stress-rated components, as manufactured by Truss Joist-MacMillan or approved equal. Structural capacity and installation of such components shall be per manufacturer’s specifications and prior approval by Architect.

2) Pre-manufactured, pre-engineered floor and roof trusses:
   Floor trusses: 16" (min.) height. Roof trusses: 18" (min.) height. Provide openings for ducts. Roof pitch: per drawings, ¼"/ft. (min.) typical @ TPO roof. Submit engineered drawings for Building Permit approval.

   Per Structural Drawings. Coordinate and provide openings for ducts where indicated. Roof pitch: per drawings @ TPO roof ¼"/ft. (min.) typical. Provide and submit engineered truss drawings for Building Permit and Architect approval.

3) Porch and exterior wall framing #2 or better, finger-jointed studs, OSB sheathing.

C. FINISH CARPENTRY:

1) Interior finish trim: Shop painted formaldehyde-free, moisture-resistant Medex or equal MDF 5- 1/8" x 5/8" painted formaldehyde-free MDF wall base, 2 ½" x 5/8" door casings. Prime 6 sides prior to installation.

2) Interior Stairs: Handrails: 1-1/4" diameter steel, supports at 5'0" o c. maximum. Return all ends as required by building code.
   Treads: Pre-cast concrete
   Risers: steel 3/16" plate.
   Stringers: steel ½" plate.
   Rubber covering with low VOC adhesive Roppe or Equal. (LEED-H MR 2.2).

3) Pre-manufactured cabinets: Maple veneer with clear "natural" varnish finish, shaker panel-in-frame door/solid maple frame design, plywood box at wet cabinets and particle board at dry units and overlay construction. Side-mount drawer glides and adjustable concealed hinges. Adjustable shelves in wall cabinets. Fixed 4" wire pulls at all units. Shelf in base cabinet. Pull out shelves at HC units. Two adjustable shelves in wall cabinets. Full-height pantry cabinet with adjustable shelves where indicated. Leedo, Lanz, or equal. Seal all exposed sides and bottom of composite wood products with Safecoat Safeseal or equal before installation.

4) Kitchen and Bath countertops and backsplashes: Plastic laminate, post-formed, AWI "Economy" Grade, with waterfall edge and integral backsplash. Speed VOC-free adhesive, or Titebond solvent-free construction adhesive, Grip or equal. Counter and splash underlayments from formaldehyde-free composite wood (see 1 above), or completely sealed composite wood or solid wood products. Seal composite wood products with Safecoat Safeseal or equal.

5) Structural Adhesives: Low VOC per (LEED MR-2.2).
DIVISION VII THERMAL AND MOISTURE PROTECTION

A. INSULATION

1) Foam Sill Seal as manufactured by Protecto Wrap or equal @ exterior sill plates.

2) Self-adhering sheet waterproofing, as manufactured by Protecto Wrap or equal

3) Perimeter and under slab insulation. 1” Syrofoam Type X “Greyboard” or equal, (CFC-free).

4) Perimeter Stem Wall Insulation. 2” Syrofoam Type X “Blueboard” or equal.

5) Net and blown fiberglass R-21 at 2x6 exterior walls. Low-formaldehyde, local manufacture, and recycled content per (LEED MR-2.2).

6) R-50 blown insulation, at roofs. Low-formaldehyde, local-manufacture, and recycled content per (LEED MR-2.2).

7) Sound Batt: 3-1/2” fiberglass woven between staggered suds in common walls, and in all bathroom walls.

8) Expansive Foam: in all voids between window and door units and rough framing, including at sill & top plates, and around all exterior wall or ceiling penetrations for wiring and plumbing. Coordinate with thermal bypass inspection requirements.

9) Weather barriers, building warp weather resistive barrier, Tyvek drain wrap & Tyvek stucco wrap or equal.

10) Fiber cement siding, trim and fasciae: “Hardie plank” HZ10 prefinished color plus or equal cement fiber board

B. ROOFING & WATERPROOFING

1) Coping Parapet Flashings: Pac-Clad or equal, 24 ga smooth steel Kynar finish. Install over building wrap and OSB sheathing or where indicated. Provide all accessories, flashings, and closure strips. Fasten with self-drilling stainless steel screws with neoprene washers. Continuous sealant or tape at all joints. Install per manufacturer’s and SMACNA recommendations. Twenty-year warranty.

2) Wall siding, Trim and Flashings: James Hardi or equal, Artisan Lap Siding (HZ10) product line lap siding with horizontal reveals at 7” on center, Colorplus finishes as indicated. Install over building wrap and OSB sheathing or where indicated. Provide all accessories, and flashings with matching finish. Fasten with manufacturers self-drilling galvanized screws. Continuous sealant or tape at all
joints. Install per manufacturer’s and SMACNA recommendations. Thirty-year warranty.

3) Scuppers, leaderheads, 26 gage Galvalume finish as indicated, finish steel. Continuous metal leaf screens at all leaderheads.

Provide all accessories, flashings, and foam closure strips with matching finish. Fasten with self-drilling stainless steel screws with neoprene washers. Continuous sealant or tape at all joints. Install per manufacturer’s and SMACNA recommendations. Five-year warranty.

4) Roof Drains: Cast iron with leaf guard at roof drain

5) Single-ply roof: low-albedo (white surface) reinforced TPO. 20 year warranty, 60 mil. As manuf. by Firestone or equal.

6) Waterproof exterior decks: Pli-Dek or equal class A fire-rated system with textured elastomeric top coating and cementitious base coat over metal lath over marine grade ¾ “ T & G marine grade plywood decking (typical at all decks) sloped at a minimum ¼" per foot OR 2 ½ hard rock concrete over bitumin water proof membrane over ¾ “ T & G marine grade plywood sloped at ¼” per foot. To be determined based on at time project cost.

C. SEALANTS

1) At wall panels & associated accessories, and at concealed locations: clear silicone or polyurethane, low-VOC, (LEED-H MR 2.2).

2) Where painting is required and adjoining stucco or siding: Match color of paint with colored silicone or polyurethane sealant, or paintable sealant, low-VOC, typical.

3) Seal all exterior joints and all other junctions as necessary to obtain complete air and watertight construction. Comply with requirements of Energy Star 2.0 and LEED-H thermal bypass inspection. Seal around windows and doors, seal all plumbing and electrical conduit openings, around windows and under headers and sills, openings into attics or crawlspaces with taped polyethylene covered with insulation, and other measures to prevent moisture or pest intrusion.

4) Seal all plumbing fixtures with mildew-resistant bathroom silicone, low-VOC.

DIVISION VIII OPENINGS

A. DOORS
(Note: All doors minimum 32” clear opening. Meeting accessible requirements)

1) Exterior: Aluminum and Hollow Metal. Full weatherstripping, threshold, and sweep. Insulating low-e glass transoms where indicated, no muntins. 4” wall depth frames for recess detail.
2) French Patio door (units): Fiberglass-clad, insulated, no muntins. Provide full insect screen panel.

3) Automatic glass bypass (entry vestibules) entrance door. Stanley Dura-Glide 3000 series doors.

4) Glass in 2 & 3 above: 5/8" tempered low-e insulating glass. Tinted at all west orientations with SHGC of 40%.

5) Interior: Colonist or equal hardboard solid core panel doors fire rated front entry door (unit), hollow core at interior doors. 4 panel, 1-3/8" thick. Masonsite or equal

6) Hardware: Schlage heavy-duty residential grade at dwelling units, lever-type, design handles. Light commercial grade at first floor and offices.

   b. Closet and Laundry doors: Passage latch.
   c. Bathroom and Bedroom doors: Privacy latch.

7) Exterior utility doors at office, first floor, storage, bicycle storage: 18 gage insulated hollow metal in 16 gage hollow metal frames.

8) Office exterior: Kawneer thermally-broken aluminum storefront system with low-e glass. (courtyards)

9) Office interior: 18 gage hollow metal frames with hardwood veneer solid core doors.

10) Deck Shoji Sun Screens: (west facing decks) 3" aluminum frame Ritescreen or equal.

B. WINDOWS: See plans and elevations for size. Insulating low-e glass, vinyl, and thermal aluminum without muntins. Infiltration 0.32 cfm/sf (maximum). U=0.4 (maximum). SHGC 35%. Tinted glass at all west orientation SHGC 40%. Cascade or approved equal. U=.32 SHGC = .4 Provide insect screen in matching aluminum frame.

C. GLASS BLOCK: Acrylic, Prestige II Vinyl frame windows, as manuf. by Acrylic Block for Less or Equal

C. MIRRORS: 3/16" thickness, mirrors at bathroom vanities, 36" height x 24” or width of vanity cabinet, clip installation.

DIVISION IX   FINISHES

A. GYPSUM BOARD: Light spray “orange peel” finish. Locally-produced standard board, except water resistant and smooth skim-coat finish at Baths, Kitchen sink, and Laundry. 5/8” type X board typical. 5/8” type X paperless at wet areas. Three-way wrap at windows.
B. LATH & PLASTER:

1) Stucco: ½” fiber-reinforced two-coat over Tyvek StuccoWrap. ½” rigid insulation. All materials, installation and curing per or STO cement plaster specifications. STO or equal prior-approved finish coat manufacturer. Utilize diamond-mesh strip lath diagonally across all opening corners and at all corners of changes in wall plane. Provide two year warranty on material and installation. Square corners typical control and expansion joints (metal), including recessed door and window details.

C. FLOORING

1) Porcelain Tile (Units & Halls): 12” x 12” thin set over Ditra. (LEED-H MR 2.2).

2) Vinyl Planks: (Office & Commons): 6’ x 82’ Rejuvenations “TimberLine” as manufactured by Armstrong or equal. (LEED-H MR 2.2).

3) Rubber: (stairs) 12”x12” and base at exercise and other rubber flooring accessories: low-VOC adhesives, Roppe or equal. (interior stairs) (LEED-H MR 2.2).

4) All flooring adhesives: Low-VOC. (LEED-H MR 2.2).

5) Exposed concrete floors where indicated (storage & bicycle) : Seal with low-VOC sealant, two coats (one after installation, one as final finish). Protect floor surfaces during construction to prevent damage and staining from food, drinks, drywall and painting operations. Do not use red snap-line chalk or pencil markings on concrete floors to be exposed.

D. PAINT & STAIN: Low-VOC throughout per (LEED MR 2.2). (Benjamin Moore, Sherwin Williams, KWAL or equal). Submittal required.

1) Interior Trim: Primer/two coats latex semi-gloss.

2) Interior Walls: Primer + two coats eggshell latex, except satin @ wet areas (Kitchen, Baths, Laundry). Low-VOC.

3) Drywall ceilings: Primer + two coats eggshell latex, low-VOC.

4) Interior Caulk: latex/acrylic, white paintable, low-VOC.

5) Seal around water closet bases, tubs, and showers with white silicone tub and tile caulk, low VOC.

6) Exterior columns and steel: Two coats exterior latex, low-VOC, over pre-primed steel.
DIVISION X SPECIALTIES

A. BATHROOM ACCESSORIES:

1) Medicine cabinet: Plastic body with mirror 18” x 36”.

2) Towel holders: Two per bathroom. Basco or equal. Wing-type drywall anchors. Coordinate exact location in field with Architect.

3) Toilet tissue holder: 1” chrome semi-recessed type. Basco or equal. One holder per water closet. Coordinate exact location in field with Architect.

4) Shower Curtain rods: adjustable aluminum, Basco or equal.

5) PVC fluted grab bars at fully accessible units, AKW or equal.

6) PVC fluted vertical grab bars at all tub/shower and toilet, AKW or equal.

7) Towel Hooks: chrome Basco or equal.

B. USPS - DELIVERY POSTAL SPECIALTIES: Auth-Florence or equal. Individual letter boxes, parcel and collection boxes.

C. SIGNAGE: Dimensional letter signage and plaques, Gemini or equal.

D. DIRECTORIES: Creative Sign Designs or equal

E. Wall and Door Protection, stainless steel corner guards as needed.

F. Fire Extinguishers: Larson or equal.

DIVISION XI EQUIPMENT

A. PROJECTION SCREENS

1) Da-Lite or equal

B. RESIDENTIAL APPLIANCES

1) Dishwasher: Model GSD3300DWW, as manufactured by GE or equal, Energy Star Rated.

2) Electric Range: Model JB250DFWW as manufactured by GE or equal, not Energy Star Rated

3) Electric Range: Model JDS28DN as manufactured by GE or equal, not Energy Rated, ADA Compliant

4) Refrigerator: Model GTH18EBEWW as manufactured by GE or equal, Energy Star
5) Refrigerator: Model GTH21GBEWW as manufactured by GE or equal, Entergy Star Rated, 21.0 Cu. Ft.

6) Range Hood Ventilated: Model JVE40DTWW as manufactured by GE or Equal, Energy Star Rated

7) Washer: Model GHWN4250DWW as manufactured by GE or equal, Energy Star Rated

8) Waster: Model GFWN1100DWW as manufactured by GE or equal, Energy Star Rated, ADA Compliant

9) Dryer: Model GFDN110EDWW as manufactured by GE or equal, Not Energy Star Rated, ADA Compliant

10) Dryer: Model GTDX400EDWS as manufactured by GE or equal, not Energy Star Rated

C. APPLIANCES FOR COMMUNITY

1) Refrigerator: Model GTH18EBEWW as manufactured by GE or equal, Energy Star Rated, ADA Compliant 18.0 Cu. Ft

2) Dishwasher: Model GSD3300DWW, as manufactured by GE or equal, Energy Star Rated

3) Coin operated clothes washer and gas dryers to be supplied by management agency’s contract vendor.

DIVISION XII FURNISHINGS

A. Horizontal Louver Blinds: 1” metal as manufactured by Levolor or equal

DIVISION XIV CONVEYING EQUIPMENT

A. Electric traction elevator as manufactured by Otis or equal

B. Electric traction freight elevator as manufactured by Otis of equal.

C. Trash chutes as manufactured by Chutes or equal.

DIVISION XV MECHANICAL

A. PLUMBING FIXTURES (prior approval required for all substitutions).
P-1 Water Closet
American Standard Bowl Champion WHI (1.6 GPF average flush), 16” height at all locations. (EGC 4.1)
American Standard Tank WHI (1.6 GPF)
American Standard or equal wood 
Hercules Bowl Wax Ring 90214 Regular W/Bolts
CLO KIT 5/8x3/8x12 PC W/ANG Stop OCR1912DLC

P-2 Lavatory
American Standard Lav WHI Oval
Delta Lav Fct PC Tract-Pact Sgl Hdl 1.0 GPM) (EGC 4.2).
LAV KIT 5/8 x 3/8 x 12 PC w/Ang Stop OCR1912AC
Dearborn PTRAP 11/2 2702 PC 22 GUA

P-4 Kitchen Sink
Sterling Pro SS Sink 33x22 18 GAU, Shallow bowl at Accessible Unit
Delta Sink Fct 100TP PC Tract-Pack Sgl Hdl (1.5 GPM). (EGC 4.2).

Insinkerator Disp 1/3 HP BDG5 " Badger 5"
DB BSKT STR L7 L/Tailpiece
AIR GAP PLAS BC9441
Supply all trim for hook up

P-5 Hot Water Heater (typical at dwellings). Bradford White 50 gallon or equal, 0.92 EF or equivalent.

P-6 Hot Water Heater (Community) Bradford White 80 gallon 0.92 EF or equivalent. With Chromagen collectors.

P-7 Roll-in-Shower: Aquatic 1603BSFB /White, with Delta single-handle lever faucet, 2.0 gallon / minute showerheads, maximum 2.0 gallon / minute faucet, with stainless steel grab bars, hand held shower faucet, and accessible shower seat per ANSI requirements.

P-8 Shower-Tub: Aquatic 2603CTH /White, with Delta single-handle lever faucet, 2.0 gallon / minute showerheads, maximum 2.0 gallon / minute faucet, with stainless steel grab bars and hand held shower faucet per ANSI requirements.

PLUMBING GENERAL (prior approval required for all substitutions).

B. PLUMBING

1) Supply piping: PEX, with 1” insulation on all hot and cold supply lines. Hot water piping shall be run above slab in the most direct route possible to fixtures from hot water heaters. r4 hot water pipe insulation.

2) Waste piping: ABS plastic. Use re-vents as required for no more than (1) roof penetration per dwelling. Insulate vertical waste stacks carefully for sound absorption in all living space walls downstairs.

3) Hot water heater: 40 and 119 gal electric DOE, ASHRAE standard 90.1 b as
manufactured by Bradford White or equal.

5) Frost proof hose bibs. Tees in main yard line for drip irrigation system.

6) Recessed rough-in boxes and fiberglass pans at washing machine locations.

7) All plumbing work shall conform to the "Uniform Plumbing Code".

8) All exposed supplies to sinks, water closets and lavatories shall have chrome plated wheel handle stops.

9) Piping will be provided for an active solar hot water system for common area.

DIVISION XXI FIRE SUPRESSION

A. Fire Protection Systems: Addressable systems designed to meet the requirements of the occupancy and use throughout the facility to include residences, common assembly space, utility rooms, elevator recall, etc..

1) Fire Alarm and annunciation: NFPA 72 The system includes a fire control panel, supervisory central alarm panel, and smoke detection

2) Fire Suppression: NFPA 13 R, wet system. fire pump (as required), fire riser, pipe distribution throughout, spray nozzles.

DIVISION XXIII HEATING, VENTILATING AND AIRCONDITIONING

A. Heating and Air conditioning

1) First floor Common areas/Office areas
   a) Dedicated (separate) 7.5 Rton (Rheem) Heat pumps serve buildings 1 and 2, EER 11.0, COP 3.3 / 2.2, supplemental electric heat by zone. Automatic setback thermostat controls. supplemental electric heat. Enhanced filtration per (LEED-H EQ 7.2)

   b) First Floor Exercise area 10.0 Rton (Rheem) Heat pump serving building 3 EER 11.0, COP 3.3 / 2.2. supplemental electric heat by zone. Automatic setback thermostat controls. supplemental electric heat. Enhanced filtration per (LEED-H EQ 7.2)

2) Hallways 2nd through 4th levels
   a) Passive heating / cooling. Exhausted through HVAC chase at ASHRAE 62.1 rates. Roof mounted exhaust fan. HVAC min 13 SEER, 82. HSPF, 4 SEER 8.6 HSPF

3) Apartments

B. Ventilation: Exhausts to exterior from bathrooms: Panasonic or equal Energy Star rated, sized per manufacturer’s recommendation for room size and with occupancy sensor switches. Recessed dryer vent. Ducted Range exhaust: see kitchen appliances in Div. XI. All exhausts ducted to wall or roof hoods with dampers. Comply with SHRAE 62.1 for airflow, design and installation.

C. Ductwork shall be in accordance with the "National Sheet Metal Contractors Association Standards". Ductwork in unheated areas must be insulated at R-6 (minimum). Duct system shall be sized, designed, and installed using latest ANSI / ACCA Manual D. Seal air duct joints with duct mastic and fiberglass mesh to provide proper air pressure and high efficiency. Duct leakage will be less than 3 cfm/100 SF.

D. Cooling: SEER 14 MIN., 8.6 HSPF Ceiling fans in living and bedrooms: Energy Star rated.

E. Installation of mechanical systems shall be made in accordance with factory requirements and recommendations. Submit detailed shop drawings and equipment schedule for approval prior to ordering or fabrication.

F. Installation of mechanical systems shall be made in accordance with all applicable local, state, and national codes including energy codes. Submit inspection certificates signed by local authorities to verify that the system has received local approval.

G. Test & balancing: Residential units: blower door test required. All buildings are designed to pass test with maximum .35 natural air changes / hour.

H. The Contractor shall instruct the Owner in the proper and most efficient operation and maintenance of the system and provide a DVD video of the instruction session(s). At the same time as instruction, the Contractor shall review and deliver to the Owner system operating and maintenance information furnished by the manufacturer, and shall give the Owner all warranty data covering installed equipment.

I. Radon-resistant rock bed system with PVC vent pipe to roof and electrical rough-in on roof for possible future exhaust fan.

DIVISION XXVI ELECTRICAL

A. All installations shall be per Code.

B. Lighting: fixtures in bathrooms shall be water-resistant type with acrylic lens. Residential fixtures and ceiling fans selected by Architect and Owner for Contractor purchase and installation; include $400 per residence allowance for these fixtures. All new residential fixtures Energy Star rated. All exterior features Energy Star or high
efficiency commercial and fully-shielded. Maximum height 16’ exterior pole fixtures.

D. Provide underground entrance cable from utility company’s transformer to meter base. Coordinate all transformer and meter locations with utility and Architect.

E. Electrical includes Energy Star overhead ceiling fans, telephone rough-in, wiring and face plates, Internet service rough-in, CAT-6 cable TV rough-in, and doorbell equipment and installation. One telephone/data outlet and video outlet per bedroom.

F. Electrical installation includes rough-in to roof for possible future installation of radon exhaust fan. (Fan and connection not in contract.)

G. Hard-wired combination smoke/carbon monoxide, 120 volt, battery backup detector in each sleeping area. All detectors in an apartment shall be monitored by the fire control panel.

H. Photovoltaic Collectors: Electrical installation includes rough-in to roof for Photovoltaic (PV) installation. Design based on design/build installation maximizing roof area, 20 year warranty

DIVISION XXVIII ELECTRONIC SAFETY AND SECURITY

A. Security System: Web based Digital controlled gate & door access, intrusion and full camera coverage tied back to the office rack mounted server with digital DVD recorder.

DIVISION XXXII EXTERIOR IMPROVEMENTS

A. Complete civil engineering and site construction documents including drainage report, grading and drainage design drawings and specifications will be provided and included as part of the contract in accordance with the requirements of the City of Albuquerque, LEED-H procedures and as set forth in the geotechnical investigation to be procured by the Owner. Phase I & II environmental assessment reports have been conducted by Owner and there are no environmental issues that need addressing.

B. Site preparation and Drainage: Vegetation in areas not requiring grading or construction shall be protected and left undisturbed. Temporary erosion control downhill of all disturbed areas for the duration of the contract per the requirements of the Storm Water Pollution Prevention Plan. Provide positive drainage of water from all buildings, in accordance with recommendations set forth in the geotechnical report and grading plan. A Storm Water Pollution Prevention Plan will be developed as required by the U.S. Environmental Protection Agency. Surface water management to be designed to capture first ½ of rainfall that falls within a 24-hour period.

C. Site Utilities: Review and coordinate with all wet and dry utility service providers as required to tie into their existing systems and provide adequate services for the project under the provisions of their system requirements below.

D. Hard paved flatwork, curbs and drive pads: 3000 psi 4” concrete, 25% fly ash content
(LEED-H MR 2.2)

E. Earthwork: Per recommendations of geotechnical report and (LEED-H prerequisite SS-1.1). Implement erosion and sedimentation control (ESC) plan. Stockpile and protect topsoil, control runoff, protect storm sewer inlets per (LEED-H, SS-1.1).


G. Driveways and Parking: Fractured compacted gravel, asphalt and concrete paving over compacted base and subgrade as required by Geotechnical investigation

H. Grading and Drainage: Surface drains and site storm drains to designated master plan drainage basins and City storm sewer off-site, with on-site retention in selected landscape areas and parking area. Follow site drainage design by civil engineer to manage all runoff via on-site design elements that allow infiltration to groundwater, assist landscape irrigation, eliminate erosion, and slow discharge.

I. Landscape and Irrigation: See Landscape Plan for planting materials and plant species. No invasive plant species (LEED-H 2.1 Prereq). Landscape and irrigation design stamped and certified by Landscape Architect to meet City & (LEED-H SS 2.2, 2.3 & 2.4 & WE 2.1) requirements. Xeric and low-water use species for 90% of plantings. Predominately drip irrigation with master shutoff valve, PRV, and rain delay sensor. Highest efficiency turf heads. Synthetic turf utilized for putting green and croquet lawn areas.

J. Water Feature: Dual spillway water fall and white noise feature, recycle water.

K. Chain link fencing (storage rooms): 8’ high chain link with mesh heavy-duty with heavy-duty galvanized steel for the components

L. Decorative metal fences and gates: Tubular steel frame with 12” tall steel plate bumper with steel rebar “pickets” attached to heavy-duty sealed adjustable hinges and tube steel post. Automatic gate control key and pressure pad.

M. Site Furnishings

1) Bicycle rack – galvanized steel grid bike rack by Glosal or equal.

2) Trash compactor: roll off self-contained compactor 20 Cu. Yd. capacity manufactured by Marathon Equipment Co. or equal.

3) Gas Grill: Tru-Infrared gas as manuf. by Char-Broil Red or equal.

4) Picnic Tables & Seats to be provided as part of furnishings.