Project Direction:

Prepare a general overview of the project describing the site and the proposed project.

1. Location

Rebranding Anacostia

- As of the 2000 Census, Anacostia's population is 92% African-American, 5% Non-Hispanic White, and 3% other.
- One of the district's poorest Ward 8 neighborhoods long defined by poverty and crime by outside observers, particularly the media - which are quick to highlight stories that reinforce Anacostia's negative image.
- But recent years have seen plans by developers to revitalize the historic neighborhood through gentrification, which posits that luring more-affluent people to the area will attract businesses, leading to a more-prosperous economy for everyone, most of all the poor.
- Anacostia's only supermarket was closed last year, forcing residents to travel more than a mile to reach the nearest grocery store. But, as Pondexter-Moore said, there is no shortage of liquor stores, which can be found on every block, making flashy new spots like the Anacostia Arts Center near the intersection of Good Hope Road and Martin Luther King Jr. Avenue stand out.
- High crime rates, associated with drug trade, reached a peak in the 1990s. In 2005, 62 of the 195 homicides in Washington, D.C. occurred in the 7th District of the Metropolitan Police Department
- The neighborhood, served by the Anacostia Metro station, is a ten minute ride on Washington Metro's Green Line from downtown Washington; other Metro stations on the Green and Orange Lines serve other parts of Greater Anacostia.

2. List the project criteria and constraints to the design. Incorporate the Habitat for Humanity requirements and the information that you gathered from the client.

- 2 bedrooms
- 900 square feet
- 1 bathroom
- a basement
- 40-gallon water heater

Insulation:

- R-38 blown insulation in ceilings
- wood frame construction

Roofing:

- Roof construction shall consist of trusses @ 16-inch centers with 7/16 OSB rated panels.
- Roof pitch shall be approximately 5/12 (optimized to minimize waste) with gable ends.

Insulations:

- The following describe insulation to be provided.
- Wood frame construction shall include exterior walls insulated to at least an R-19 value using fiberglass batt insulation and ½ inch insulation foam.
- R-38 blown-in insulation shall be used in ceilings.

3. Discuss the Universal Design features that you included in the design.

- No-step entry: At least one step-free entrance into your home — either through the front, back, or garage door—lets everyone, even those who use a wheelchair, enter the home easily and safely.
- Single-floor living: Having a bedroom, kitchen, full bathroom with plenty of maneuvering room, and an entertainment area on the same floor makes life convenient for all families.
- Wide doorways and hallways: With your home's doorways at least 36 inches wide, you can easily move large pieces of furniture or appliances through your home. Similarly, hallways that are 42 inches wide and free of hazards or steps let everyone and everything move in, out, and around easily.
- Reachable controls and switches: Anyone — even a person in a wheelchair — can reach light switches that are from 42-48 inches above the floor, thermostats no higher than 48 inches off the floor, and electrical outlets 18-24 inches off the floor.
- Easy-to-use handles and switches: Lever-style door handles and faucets, and rocker light switches, make opening doors, turning on water, and lighting a room easier for people of every age and ability.
- Raised front-loading clothes washers, dryers, and dishwashers
- Side-by-side refrigerators

- Easy-access kitchen storage (adjustable-height cupboards and lazy Susans)
- Low or no-threshold stall showers with built-in benches or seats
- Non-slip floors, bathtubs, and showers
- Raised, comfort-level toilets
- Multi-level kitchen countertops with open space underneath, so the cook can work while seated
- Windows that require minimal effort to open and close
- A covered entryway to protect you and your visitors from rain and snow
- Task lighting directed to specific surfaces or areas
- Easy-to-grasp D-shaped cabinet pulls

Client's Universal Design Specifications:

- An accessible entrance with no steps and a porch or overhang.
- Passage doors, including the full bathroom, will be 36 in. wide. If necessary, secondary bathroom doors may be 32 in. wide.
- All hallways will be 42 in. minimum frame to frame.
- Kitchen will be designed to permit wheelchair maneuverability (5 ft diameter open area).
- Wall reinforcing for grab bars in bathrooms. If the family requires grab bars in the bathrooms at the time of selection, they will be installed during the initial construction.
- At least one full bathroom must be accessible (meet accessibility standards).

Wider doors. A 30- or 32-inch-wide interior door is considered standard, but universal access requires 32 inches of clear space when the door is open, which usually means specifying a 36-inch-wide door.

Expect to pay $20 to $30 more for a 36-inch-wide door over the cost of a 32-inch door. If you need to widen an existing door opening, you'll pay an additional $125 to $500 for new framing, trim, and labor.

Be sure to check how much space a larger door requires when it swings open. Bathroom doors should swing outward.

Grab bars for shower, tub, and toilet. Cover the framing of the entire tub, shower, and toilet surround with ½-inch pressure-treated plywood so that you can install grab bars anywhere on the wall, either immediately or at any time in the future.

Adding the plywood costs about $250 for labor and materials for a 3-foot-by-5-foot shower enclosure; grab bars cost from $50 to $300, depending on the quality of the finish. Expect to pay $50 to $125 per grab bar for labor.

If you have restricted mobility, consult a CAPS builder about how many grab bars you need, what sizes they should be, and where they should be located. Because different health issues require different bar placements, it isn't a good idea to add more than one bar now if you're healthy.

A curbless shower. These showers have no lip at the floor and can be accessed by those using a wheelchair or other mobility device. The floor slopes down toward the drain; a swing-out door or a shower curtain keeps water contained. From a design standpoint, the minimalist lines fit seamlessly into a contemporary spa-style bathroom.

A curbless shower requires that the shower pan or drain be slightly lower than the surrounding flooring. Typically, your building contractor lowers the shower floor area by trimming the tops of the floor joists (and strengthening them if necessary), then installing a concrete shower floor (for tile) or a curbless shower pan.

Installing a curbless shower costs about the same as installing a "regular" fully tiled shower stall. However, expect to pay an additional $200 to $300 in labor for modifying floor joists.

Lever-style door handles and faucets. Lever-type handles are easier to use than twist-type knobs or handles, and they're especially convenient for kids or anyone with limited dexterity. They're available in as many styles and finishes as other faucets and handles, at comparable prices.

Hand-held shower. These versatile shower heads attach to a flexible hose that makes them easy to use while sitting. Many have a 'trickle' or 'pause' setting that allows you to shave or wash your hair without wasting water. They're also good for cleaning the shower stall or bathtub. Hand-held units are no more expensive than fixed shower heads.

A shower bench. Choosing an acrylic shower surround with a built-in bench costs no more than a plain stall, and adding a built-in corner bench to a tiled shower costs around $150 to $250 extra. A folding, waterproof shower seat that attaches to the wall costs $150 to $500.

Tall toilets with no-slam seats and lids. Toilet seats with soft-close mechanisms are great for small children — or anyone who's accidentally banged a seat shut in the middle of the night. Test-drive one in a showroom to see if you agree; a soft-close seat is $35 to $65. Tall toilets are 16 to 18 inches high compared with the standard 14 or 15 inches. Additional cost for a tall toilet is minimal, around $50 more for comparable styles.

Wall-mounted sinks. To provide space beneath a bathroom lavatory for wheelchairs or other mobility devices, consider a wall-mounted sink. Wall-mounted sinks have no vanity cabinet or supporting legs underneath, which makes cleaning floors a snap. Depending on the style, some have shrouds that conceal drain traps and water supply tubes under the sink. Expect to pay $200 to $1,000 and up.

If you prefer cabinets, mount them at least 9 inches off the floor to allow room for a wheelchair footrest to pass underneath.

Wheelchair clearance. Wheelchair-accessible bathroom dimensions require clear space of at least 5 feet (60 inches) in diameter to allow a 180-degree turn. If space is at a premium, consider keeping the room open rather than compartmentalizing the toilet so that a wheelchair's turning radius can be accommodated.

Slip-resistant tile. Ceramic flooring tile has a jargon-y rating called a COF — coefficient of friction. All that means is how resistant the tile is to slips when wet. A COF of .60 or above is safe for bathrooms and meets or exceeds safety requirements of the Americans with Disabilities Act. Slip-resistant tile doesn't cost more than tile with a lower COF.

4. Discuss the green and sustainable features that you included in the design.
    - Exterior
        - Single-ply "Cool Roof" system to minimize heat effects.
        - Photocell controls to conserve light energy.
    - Heating and Cooling
        - High-efficiency heat pumps with sound reduction.
        - Interlock switches to conserve energy when windows or doors are left open.
    - Windows and Skylights
        - Thermally broken aluminum windows with low solar heat gain.
        - Tubular skylights that provide 100% lighting to minimize electric light usage.
    - Environmental Quality
        - FSC-sourced lumber to ensure sustainable building materials.
        - Low and/or no-VOC adhesives, sealants, paint, flooring, ceilings, and wall coverings.
        - Non-absorbent carpet to deter mold.
        - Recycled materials for thermal insulation, ceiling systems, flooring systems, and structural steel