

# **Guide for the Design Consultant in the Selection of Building Materials and Finishes for HHAP projects**

A project architect's creativity, experience, and knowledge in selecting building materials will generally prevail on all HHAP projects; however, a "value added" justification may be required to convince the project team. In selecting building materials and finishes for HHAP projects, an architect must keep in mind the durability, initial cost and maintenance requirements of a particular product or finish. Replacement cost and frequency of maintenance should be considered when determining durability and life cycle cost. The owner's in-house maintenance capabilities should also be considered in the selection.

A detailed existing condition survey by the Architect is required before the commencement of any design work. In the case of a rehabilitation project, the survey should identify not only the structural integrity of the exterior and interior walls, floors and roof system, but also the presence of asbestos, radon and termite damage, and the status of HVAC, plumbing and electrical systems. The architect must provide a detailed existing condition survey of the property by mapping or charting the features of the project area and indicating the soil condition via test borings, percolation tests (measures the ability of the soil to absorb liquid), etc. It is highly recommended that the architect re-visit the project site and re-evaluate the existing conditions before finalizing the bid documents.

The following recommendations are compiled from experience on the HHAP projects, and should be used in the selection as a guide. The recommendations by no means cover all aspects of material selection and are not intended to endorse any proprietary products. Architects are encouraged to present evaluation of new products, as they become available.

## **Exterior Materials and Finishes:**

**Walls:** On rehabilitation projects, existing walls should be inspected by the architect to assess the need for repairs and weather protection. Depending upon the designed structure, concrete block, brick with structural backing or vinyl coated aluminum siding is recommended for new construction projects. The architect must show the detail of a brick veneer exterior wall, indicating how moisture will drain from rain and how it will tolerate extraordinary wind conditions. Control joints in the structural back up and expansion joints in the brick veneer ought is also an important consideration. Stucco and other similar finishes are acceptable. Graffiti resistive finish up to 15' high is recommended for projects in some neighborhoods. Details for ventilating the brick are required where graffiti resistive finish is used. Reinforced concrete or concrete block basement walls with proper water proofing and footing/foundation drains are also recommended.

**Roof:** A properly installed 4-ply built-up tar roofing system with a minimum 20-year guarantee is recommended. The pitch of the roof and protection from ultra-violet rays should be considered in the selection of the roof system. An EPDM roofing system with an extended guarantee may be acceptable. An asphalt shingle roofing system is acceptable for highly pitched roofs.

**Windows:** On a rehabilitation project, energy efficient, double pane, aluminum windows from a reputed manufacturer may be acceptable. The architect should evaluate the feasibility of using replacement windows. Integral thermal break and U-value shall be considered. Long lasting exterior caulking will minimize maintenance. Acorn, Traco, or approved metal window systems, Anderson, Hurd, or approved wood window systems, are recommended. Depending upon the structure, metal windows should meet classification of C-50 or better. In mid-rise buildings window guards mandated by local laws must be considered in the window type selection. Code complying locks for fire escape windows should be provided to eliminate unsafe, unauthorized locks by the tenants.

## **Interior Materials and Finishes:**

**Doors:** Solid core wood and/or metal doors with the proper fire rating labels from a reputed manufacturer are recommended. Hollow core doors are not recommended due to durability considerations.

**Door Hardware:** Stainless steel hardware and locking devices with master keys from a reputed manufacturer are recommended. ADA requirements are to be considered as applicable to the project.

**Floor:** On rehabilitation project, repairing and refinishing the existing floor may be acceptable. Polyurethane finished wood floors and/or commercial grade duty vinyl tiled floor are recommended for living areas. A plywood floor with carpet is not recommended, while marble and granite floors are not economically justified. Ceramic tiles in bathrooms are recommended. Terrazzo or non-skid ceramic or quarry tiled floor may be justified in rare cases in kitchens and main lobby areas.

**Walls:** On rehabilitation projects, existing walls with proper repairs and finishes may be acceptable. In new construction, minimum 5/8" thick gypsum wall boards, fire rated and/or insulated where required, are recommended. Moisture resistive gypsum boards are recommended in bathrooms and part of kitchen, however, moisture resistive cement boards are highly recommended around the wet areas of bathrooms. Ceramic tiles are recommended in bathrooms. The durability of paint finishes should be evaluated for different areas.

**Ceiling:** Minimum 1/2" thick gypsum board ceiling, fire rated and/or insulated where required, is recommended in a new construction. Generally, moldings and paneling are not economically justified. An exposed or painted reinforced concrete plank ceiling is acceptable. A reasonably priced hung ceiling system, from a reputed manufacturer, is

acceptable in offices, program spaces, lobbies etc. Repairing and finishing existing ceilings may also be acceptable on rehabilitation projects.

**Kitchen:** Plastic veneer (Formica or similar) counter tops, splash backs, and kitchen cabinets have proven to be economical, easy to maintain, relatively long lasting and are therefore recommended. Reasonably priced hard wood cabinets are also acceptable. Marble, Granite, or Corian counter tops are not economically justified. Stainless steel kitchen sinks with stainless steel faucets are recommended.

**Bathroom:** American Standard or approved equal bathroom fixtures are recommended. Plastic veneer vanity counter tops, splash backs and vanity cabinets are recommended. Hard wood cabinets are also acceptable. Stainless steel faucets and shower fixtures are durable and economical.

**Special Considerations:** Vertical transportation and an HVAC system with extra fresh air circulation must be provided for projects housing a frail population such as people living with HIV/AIDS. All HHAP projects must comply with ADA requirements. Sturdy finishes and fixtures should be considered for emergency and transitional projects as well as those housing runaway youth and the mentally ill.

HHAP endeavors to build supported housing within a comfortable and pleasing environment that assists families and individuals to live as independently as possible. Architects should be imaginative in the selection of not only materials and finishes, but also the color and juxtaposition of the same to make the building lively and appealing to the eye.