





## **CHAPTER V**

### **PAINT ANALYSIS**

#### **INTRODUCTION**

Analysis and research of the original finishes of the Department of Housing and Urban Development (HUD) Building was conducted in July 1994 by Reed A. Black, AIA and Mary Jane Klingelhofer of Oehrlein & Associates Architects. The materials and spaces to be analyzed included the significant and public interior spaces which were described in the Scope of Work as the entrance lobby, stairwells, cafeteria, library, Secretary's Suite, Departmental Conference Room, typical corridor, typical office, typical toilet and typical elevator lobby.

The purpose of the paint analysis is first, to provide a record of all of the paint colors applied to these individual surfaces of the building, identifying original paint schemes, and second, to identify alterations and additions to the building. Because the building is not very old, because it has not been altered significantly, and because the paint colors and finishes were integral to the original design and function of the building (i.e., paint colors were used to indicate quadrants of the building), the period of significance of the building is its original date of construction in 1968.

Methods of research included review of the original construction drawings and specifications as well as a discussion of the original paint scheme with the associate architect for the original design of the building, Herbert Beckhard, FAIA. Paint chips of the paint colors originally specified were also obtained to determine variations between the original color scheme and what was actually applied. Paint seriation analysis and solvent testing was also performed to determine the original paint colors and finishes actually applied to the individual surfaces of the building.

#### **HISTORICAL RESEARCH ON ORIGINAL PAINT SCHEME**

The original drawings and specifications for the building describe the paint scheme intended, indicating both the color name and number. The color numbers shown on the original drawings are based on "Federal Standard No. 595" which were a group of standard colors used by the Government. Used primarily in specifying paint colors for Government equipment, the colors are sometimes used for specifying paint for Government buildings. These standard colors are identified with a 5 digit number. The 10000 series numbers identify paint colors with a gloss finish; the 20000 series numbers identify colors with a semi-gloss finish; and the 30000 series numbers identify colors with a flat finish (called "lusterless" on the drawings and in the specifications). The last 4 digits of the number identify the paint color, thus paint colors with the same last four digits and different first digit are the same color with a different finish.

Original construction drawing 5-2, "Interior Paint & Color Schedule," "approved" April 14, 1965 (see Illus. Nos. 5-1 and 5-2), describes the colors for typical spaces, for the quadrants, for special spaces and for the exterior of the building. The original specifications, dated April 29, 1965, contain Section 46, "Painting and Finishing Part I - Architectural" and "General Color Instructions" (see Exhibit 5-C). The specifications describe the materials and application of all of the paint and natural wood finishes to be used on the building. The "General Color Instructions" specify the color of all of the miscellaneous items in the building. An undated color board titled "Interior Paint and Color Scheme," possibly prepared by the building's architects for a presentation to HUD or the GSA, also includes the lists of spaces and materials and the colors and finishes of each as well as color chips of most of the listed colors (see Exhibit 5-B).

Colors shown on the schedule and in the Specifications are slightly different from those shown on the "Interior Paint and Color Scheme" color board. The most noted differences between the color board and the specified colors are in the paint finish and "temperature" of the colors. White colors shown on the color board are "cool" or have a bluish tint while the white and off-white colors specified are "warm" with a slightly reddish tint. This change in the color was probably to make the whites and off-whites more closely match the color of the concrete. The paint finishes are also slightly different. The wall color which is shown as #37886 on the color board indicates a flat finish. The same color for the walls was shown as #27886 on the Color Schedule except the finish was indicated as semi-gloss. The color "White" is not identified on the drawings or in the specifications, however, it is identified as #37886 on the "Interior Paint and Color Scheme" color board. No color photographs showing the original painted finishes and colors of the completed HUD building have been located.

#### LIST OF ORIGINALLY SPECIFIED COLORS

This list is compiled from the Interior Paint and Color Schedule (Drawing 5-2), General Color Instructions found in the back of the Specifications (Exhibit 5-C), and "Interior Paint and Color Scheme" (Exhibit 5-B).

(\*Indicates colors shown on the "Interior Paint and Color Scheme" different than those specified on drawings and in the specifications)

#10080	Brown (for NE quadrant doors and transoms)
#12197	Orange (for NW quadrant doors and transoms)
#15123	Blue (for SE quadrant doors and transoms)
#16081	Grey (dark grey for elevator doors and frames and SW quadrant doors and transoms)
#16440	Grey (for stair rails, *Color Board shows #26280)

---

*#17875	White (for core doors from Color Board)
#17886	Off-White (metal doors and frames)
#26280	Grey (Areaway gratings at exterior)
#26440	Grey (Miscellaneous painted ferrous metal)
*#26595	Grey (Door Bucks in unpainted concrete walls from Color Board)
*#27875	White (Cafeteria service areas from color board)
#27886	Off-White (Typical walls)
*#37886	White (for ceilings, original drawings indicate "white" for ceilings; Color Board indicates #37886)

#### **EXTERIOR: ORIGINAL SPECIFIED FINISHES**

"Interior Paint & Color Schedule," Drawing No. 5-2, GSA Drawing No. 28, dated April 14, 1965 (see Illus. Nos. 5-1 and 5-2), describes the interior and exterior color scheme of the building, and because it was part of the contract documents, was probably the information that guided the contractor in painting the building. The majority of the exterior surfaces of the building are concrete or stone. Windows, entrance doors and frames and the metal storefront at the west side of the cafeteria are aluminum with a black anodized satin finish (see Illus. No. 3-12, "Exterior Finish Schedule"). Ferrous metal fire stair doors and frames, storage room doors frames and railings were scheduled to be painted off-white (#17886). The access panels and casing beads in the colonnade ceiling, were to be painted white to match the adjacent white portland cement plaster ceiling. Gratings at the areaways were specified to be painted grey (#26280).

#### **INTERIOR: ORIGINAL SPECIFIED FINISHES**

##### **PUBLIC SPACES: ORIGINAL SPECIFIED FINISHES**

The interior colors and finishes were mostly white, off-whites and greys to match or complement the surrounding concrete and natural materials. Color was introduced to identify the quadrants of the building on the second through tenth floors.

##### **FIRST FLOOR: ORIGINAL SPECIFIED FINISHES**

Public spaces on the ground floor of the building included the entrance lobbies, toilet rooms and the cafeteria. Walls in the lobbies are bush hammered concrete and floors are

---

bluestone. The only painted surfaces in the lobbies are the metal doors and frames, the plaster ceiling and the miscellaneous items such as the fire hose cabinets and exposed storm, sewer and fire riser pipe. All of the doors and frames on the first floor were specified to be painted off-white (#17886) with the exception of the elevator doors and frames. The elevator doors and frames on all of the floors were specified to be painted with "baked enamel" grey (#16081). Only the color name "white" was specified for the first floor plaster ceilings. The Color Board (Exhibit 5-B) identified the ceiling color as white (#37886); this color matches the metal door and frame color except that it has a flat finish instead of the gloss finish specified for the metal work. The miscellaneous metal items were to be painted to match the adjacent surfaces. The off-white color specified for the metal work and ceilings matched the warm white color of the concrete walls while the dark grey color specified for the elevator doors made them contrast with the concrete walls and appear as a "negative" on the wall.

The plaster walls above the tile wainscot in the toilets were specified to be painted grey (#27886) to match the toilet's gray tile walls.

The plaster walls in the cafeteria were also specified to be painted grey (#27886) along with the metal doors and frames. Telephone recesses walls were indicated in the Specification's "General Color Instructions" to match the adjacent walls, which are concrete. A letter dated 14 March 1968, from John A. Glen, a representative of the Architect, to the Construction Engineer, requested that the telephone recesses be painted to match its "Oxford Grey" plastic laminate shelf.

## **SECOND THROUGH TENTH FLOORS: ORIGINAL SPECIFIED FINISHES**

The color scheme on the second through tenth floors was the same for all of the corridors, toilet rooms and typical offices. Because of the disorienting nature of the curving corridors, the doors and transoms in the four quadrants of the corridors were to be painted different colors to help orient both visitors and employees. The specified colors were:

- brown (#10080) for the northeast quadrant doors and transoms
- orange (#12197) (called "Breuer Red" by Breuer's partner, Herbert Beckhard)<sup>1</sup>  
for northwest quadrant doors and transoms
- blue (#15123) (called "Breuer Blue" by Herbert Beckhard)<sup>2</sup> for southeast  
quadrant doors and transoms
- grey (#16081) for southwest quadrant doors and transoms

During the construction of the building, for unknown reasons, the quadrant colors were changed by the architects, Marcel Breuer and Associates. A letter from Herbert Beckhard,

---

<sup>1</sup>Interview with Herbert Beckhard at the HUD Building, June 8, 1994.

<sup>2</sup>Ibid.

---

project architect, to Miss Carol Ann Robbins, GSA, dated July 29, 1966, requested the following color changes:

- brown (#10080) changed to yellow (#13655) for the northeast quadrant doors and transoms
- blue (#15123) changed to black (#17038) for southeast quadrant doors and transoms
- grey (#16081) changed to blue (#15123) for southwest quadrant doors and transoms
- orange (#12197) for northwest quadrant doors and transoms remained unchanged.

Door frames in the corridors were to be painted off-white, gloss (#17886) and the wall surfaces were to be painted off-white, semi-gloss (#27886) to match the door frames.

The public toilet room vestibules were specified to be painted off-white, semi-gloss (#27886) to match the concrete walls of the elevator lobbies. The plaster walls above the tile wainscot in the toilets were to be painted grey, semi-gloss (#26440) to match the tile and the metal toilet partitions were to be painted to match the room door color. Plaster ceilings in the toilets to be painted white (#37886) to match the concrete walls of the elevator lobby. The elevator lobby ceiling was white cement plaster with the casing beads painted white to match.

The majority of the materials in the stairwells were unfinished concrete walls and floors. The only finishes specified were the grey paint (#16440) for the ferrous metal handrails in the corner stairwells and the natural finish for the wood handrails in the core stairs and stairs from the garages to the basement.

#### PRIVATE SPACES: ORIGINAL SPECIFIED FINISHES

##### **SECOND THROUGH TENTH FLOORS: ORIGINAL SPECIFIED FINISHES**

###### Typical Offices

Typical office walls were specified to be painted off-white (#27886) with door frames also off-white (#17886). The ceilings were to be painted white (#37886).

###### Executive Office Suites

The Executive Office Suites occur at the south end of the building from the fourth to the ninth floors. The walls of the rooms are specified and detailed with ash plywood paneling with a "natural" finish, except for the executive office, which is paneled in vertical tongue and groove American Cherry. The original specifications for the "natural" ash finish is three coats of varnish with the final surface to be a "satin finish" (see page 46-9 of Exhibit

---

5-C). A letter from the Construction Engineer described the ash finish in detail as follows:<sup>3</sup>

- 1 coat Pratt & Lambert Spec. Stain No. 2225N, wiped.
- 1 coat Pratt & Lambert Pale Trim Varnish Gloss, sanded.
- 1 coat Pratt & Lambert Pale Trim Varnish Gloss, sanded.
- 1 coat Pratt & Lambert Pale Trim Varnish, Dull.

The plaster and concrete exterior walls were specified to be painted semi-gloss, off-white (#27886). The doors and frames were to be painted the matching gloss off-white (#17886). The doors actually installed in the executive office suites were flush, solid core, birch veneer doors. These doors were stained and varnished in an attempt to match the ash paneling. The architects, noting that the wood color and grain of the birch doors did not match the ash or cherry paneled walls, requested that the existing birch doors be painted white or black or that new doors be ordered to match the ash paneling.<sup>4</sup> This change was not made and the birch doors, stained and varnished, remained.<sup>5</sup> Doors and frames in the cherry paneled executive office were also cherry and were finished to match the walls. Finishing of the American Cherry is described below under "Secretary and Deputy Secretary's Suites."

## **TENTH FLOOR: ORIGINAL SPECIFIED FINISHES**

### Secretary's and Deputy Secretary's Suites and Departmental Conference Room

The Secretary and Deputy Secretary's Suites were referred to as "Administrator's Office Suite and Commissioner's Private Offices" on the original Color Schedule drawings,<sup>6</sup> and the Departmental Conference Room was referred to as the "Administrator's Conference Room" on the original drawings. Although the Color Schedule and detail drawing of the spaces indicates that the walls, door and frames are "walnut boarding" with a "natural" finish, the floor plan of the spaces show cherry boarding with natural oiled finish. American Cherry was used instead of the originally specified walnut because the lifting of an embargo on walnut logs created an extreme shortage of walnut. The specifications describe the "natural" finish for the walnut as four coats of hand rubbed oil with a final coat of hand rubbed paste wax (see pages 46-8 and 46-9 of Exhibit 5-C). In an effort to make the cherry paneling match the walnut furnishings selected for the building, it was

---

<sup>3</sup>Letter to John McShain from James R. Harris, Jr., December 5, 1967.

<sup>4</sup>Letter to Chief, Design & Construction Division from John A. Glen, Nolen-Swinburne and Associates, March 22, 1968.

<sup>5</sup>Letter to John Glen, Nolen-Swinburne and Associates from R. S. Eckert, Chief, Design and Construction Division, April 10, 1968.

<sup>6</sup>"Color Schedule," Drawing 5-2, GSA Drawing No. 28, April 14, 1965.



suggested that the cherry paneling be stained walnut.<sup>7</sup> Tentative approval was given to apply the following stained finish:

- 1 coat Pratt & Lambert tonetic walnut stain, rubbed
- 2 coats of gloss varnish, sanded
- 1 coat of flat varnish<sup>8</sup>

This finish was apparently not given final approval because the cherry paneling samples reviewed by the architect were described as having the "natural color of the cherry wood rather than an attempt to simulate walnut."<sup>9</sup> The only painted surfaces in the Suites are the exterior plaster and concrete walls with metal fan coil cabinet covers which are specified be off-white (#27886). There are no painted finishes in the Conference Room, however, the interior walls and shelves of the closets are ash, presumably finished as described above under Executive Office Suites.

### **PAINT ANALYSIS METHODOLOGY**

The paint analysis was performed at the 24 interior locations indicated on the list included with the Scope of Work. Fifteen additional interior locations were also sampled so that the complete description of the original interior colors of the significant spaces could be presented. One additional paint sample was taken from the exterior of the building and analyzed. On painted surfaces, paint seriation analysis was performed. On clear finished wood items, solvent testing was performed to determine whether the finish was shellac, lacquer, or varnish. Finish samples were examined and taken from locations where complete undisturbed paint layers (called startigraphies) are most likely to exist and least likely to have degraded.

The on-site examination involved the use of a scalpel to cut through and expose all of the separate layers of paint on individual elements. Each layer was examined in-situ through a hand-held 7x lens. Numerous samples of repetitive elements were studied to ensure that complete sequences were identified and recorded. Paint samples were removed from the building for laboratory analysis. The locations of the paint samples studied are noted on the accompanying plans of the building (see Illus. Nos. 5-3 through 5-6).

Laboratory analysis involved studying the removed paint samples off-site. These samples were beveled with a sharp scalpel to expose the paint layers to the greatest extent possible. The paint layers were then observed using a 40x binocular microscope under 3200 degree

---

<sup>7</sup>Memo for the Record from Thomas A. Bradford, Construction Engineer, June 24, 1966.

<sup>8</sup>Memorandum for the Record from the Construction Engineer, January 16, 1967 and Letter to John McShain, Inc. from James R. Harris, Jr., Construction Engineer, January 30, 1967.

<sup>9</sup>Memorandum for the Record, Site Inspection and Conference, by Herbert Beckhard, June 14, 1967.

Kelvin illumination. The first finish layer applied to each portion of the building fabric is color matched colorimetrically to the Munsell color code system and described using the International Society Color Council and National Bureau of Standards color names. These paint colors are also matched with the Federal Standard Colors Federal Standard 595B to determine if the first finish paint colors match the originally specified colors. All other layers identified are described by color name only. The colors identified are listed in sequence on the accompanying Chromochronology Charts (see Exhibit 5-A). Each vertical column corresponds to the element sampled which is identified at the head of the column. The substrate material and the earliest paint layer are located at the top of the column followed by the subsequent paint layers and ending with the most recent paint layer at the bottom of the column. Corresponding paint layers of different samples are aligned horizontally so that the paint scheme of a space during a particular time can be read across a single horizontal line.

Solvent testing was also performed on site. This involved applying three different types of solvents; denatured alcohol, lacquer thinner and a methylene chloride paint remover (Zip Strip) to the clear finished wood surface and observing the reaction. Finishes dissolved by the denatured alcohol are identified as shellac, finishes dissolved by lacquer thinner are identified as lacquer, and finishes dissolved by the methylene chloride paint stripped are identified as varnish. Locations and results of these tests are also identified on the Chromochronology Charts (see Exhibit 5-A).

### **PAINT ANALYSIS OBSERVATIONS/FINDINGS**

Below are the results of the paint analysis based on field and laboratory analysis. Letters shown thus, (P-1) indicate paint samples and (S-1), indicate solvent samples listed in the Color Chromochronology Charts in Exhibit 5-A.

#### **EXTERIOR PAINT ANALYSIS**

Paint analysis on the exterior of the building was limited to the paint on the guardrail on the retaining wall of the west elevation (sample P-37). This railing is primed with an orange primer which was followed by the first finish coats of gloss, yellowish white, 5Y 9/1. This color matches Federal Standard Colors, (FS) #17886. Based on field observation, the metal storage room doors and frames in the exterior granite walls of the first floor also were painted this same yellowish white although laboratory analysis and matching of these painted exterior door surfaces was not performed. The metal railing has been painted gloss black. Other original painted surfaces on the exterior of the building include the metal access panels and casing beads in the arcade ceiling, the metal doors leading to the corner stairs, the metal grates over the light pits and basement garage vent shaft grates. The glazed entrance doors and storefront systems are black anodized aluminum and are not included as painted surfaces.

The condition of the paint on the exterior railings is poor. The railing has only been painted once since its original painting. The paint and primer coatings have failed, causing

the steel railing to corrode, damaging the railing and staining the concrete wall below the railing. The paint on the plaster ceiling is soiled and the paint on the metal access panels is peeling.

### INTERIOR PAINT ANALYSIS

#### **PUBLIC SPACES: PAINT ANALYSIS**

The original paint colors found on almost all of the painted surfaces in the public spaces of the building were a yellowish white matching the colors specified on the original drawings. These surfaces now, however, are painted a variety of colors which are not related to the original colors or any other material in the building. The colors applied to the doors and transoms on the upper floor corridors to identify the quadrants of the building have been applied to the frames and the doors and transoms painted a neutral color. Repainting the building with paint colors not matching the originals has altered the original appearance of the building.

#### First Floor

Public spaces on the ground floor of the building included the entrance lobbies, toilet rooms and the cafeteria. Walls in the lobbies are bush hammered concrete, which are soiled. Floors are bluestone, which are coated with a thick layer of wax. The only painted surfaces in the lobbies are the metal doors and frames, the gypsum board ceiling and the miscellaneous items such as the fire hose cabinets and exposed storm sewer and fire riser pipe.

The metal doors on the first floor were primed with a coat of dark grey primer. This primer was followed by a coat of Yellowish White, 5Y 9/1 (P-1, P-3, P-6, P-11). The paint and primer was applied to both sides of the doors and frames. The door frames were primed with dark red and finished with a coat of Yellowing White 5Y 9/1, (P-2, P-4, P-7, P-12). Miscellaneous painted items such as the fire riser pipe and fire hose cabinet were also primed dark red and painted Yellowish White 5Y 9/1, (P-5). Because the plaster ceiling in the lobby was removed to allow the installation of the fire suppression system and replaced, the ceiling was not sampled. The elevator doors and frames were primed light grey and finished with Dark Grey 10G 3/0.5. The original elevator door and frame color was determined at the Basement level, see sample P-26. The metal doors and frames have been painted a variety of colors since the building was constructed, finally ending with the existing silver metallic paint scheme. The miscellaneous painted items were not repainted until the most recent campaign, resulting in their being painted silver also. The fire hose cabinets have been painted "fire engine red." The elevator doors retained their original dark grey color until the recent elevator renovation (1992-1994) when they were painted a light grey.

The plaster walls in the cafeteria were primed a Pale Orange Yellow 10YR 9/2. The first finish coat of paint is Yellowish White 5Y 9/1, (P-10). The Cafeteria side of the doors and frames were painted to match the Lobby side, (P-8, P-9). Since their original painting,

the doors and frames have been painted a variety of colors as part of the various remodelings of the Cafeteria and ending with the current silver metallic paint finish. Telephone recesses were painted Dark Grey N 4.5/15.6%R (P-27). The condition of the existing paint coatings in the public spaces is good.

### Second through Tenth Floors

The color scheme on the second through tenth floors was the same for all of the elevator lobbies, corridors, toilet rooms, stairwells and elevator lobbies. The doors and transoms in the four quadrants of the corridors were to be painted different colors to help orient both visitors and employees. Both sides of the doors and transoms were painted the quadrant colors. Paint samples were taken from the doors by removing the plastic kick plate, exposing the original finish painted surfaces. The door and transom colors were as follows:

Yellow	2.5Y 8/14 gloss, at northeast quadrant door (P35).
Black	N 0.5/0.6%R gloss, at southeast quadrant door (P-14) and transom (P-15).
Blue	2.5PB 4/7 gloss, at southwest quadrant door (P34).
Orange	10R 5/6 gloss, at northwest quadrant door (P36).

Stairwell doors and frames were painted Yellowish White 5Y 9/1 (P-16, P-17), to match the adjacent wall surfaces.

Door frames in the corridors were painted Yellowish White 5Y 9/1 gloss, (P-16), and the wall surfaces were painted Yellowish White 5Y 9/1, (P-13), semi-gloss matching the door frames.

The plaster walls above the tile wainscot in the toilets were painted grey/yellow, green 10Y 7/0.5 (P-24) matching Federal Standard Color #26440. This color matches the color of the glaze wall tile. The metal toilet partitions were painted white N9.5 90%R gloss (P-25). Plaster ceilings in the toilets were painted Yellowish White 5Y 9/1 (P-23). The toilet room walls and ceilings have been painted light blue and the toilet partitions painted blue/grey.

All of the painted surfaces in second through tenth floors appear to have been recently painted and the paint finishes are in good condition. The paint colors, however, do not match the original paint scheme. The white cement plaster ceiling of the elevator lobbies, which was not to be painted, have also been painted. The exposed concrete soffit above the elevator doors has been painted white, along with the plaster ceiling.

The majority of the materials in the stairwells were unfinished concrete walls and floors. The only painted finishes are the ferrous metal pipe handrails in the corner stairwells and the rectangular steel railing at the stairs to the garage. The pipe railing in the corner stairs was primed dark red and finished with gloss Yellowish White 5Y 9/1 (P-28). This railing has recently been painted grey and is in good condition. The paint on the steel railing to

the garage appears to have not been painted since it received its original paint. The paint coating is very dirty and is peeling. Wood handrails were typically used in the stair wells with the exception of the corner stairs. The original finish on the round white oak handrail of the core stairs appears to have been recently removed and the handrail finished with clear gloss varnish (S-1). The square cherry handrail of the stairs to the garage appears to have its original natural finish, possibly oiled and waxed. These railings are very soiled and stained.

### **PRIVATE SPACES: PAINT ANALYSIS**

#### Typical Offices

Typical office walls, both plaster and concrete were originally primed with a pale orange yellow and then painted Yellowish White 5Y 9/1 (P-20, P-21). The metal fan coil cabinet grills were primed brilliant greenish yellow and then painted to match the walls (P-21). The doors and frames in the offices were also painted Yellowish White 5Y 9/1 (P-18, P-19). The office where the paint analysis was performed has been painted numerous times in a variety of color schemes, most recently in the existing grey and off-white color scheme.

#### Library

The only painted surfaces in the library were the concrete and plaster walls and metal fan coil cabinet grills. These surfaces were painted the same as all of the other walls in the building, with primer and Yellowish White 5Y 9/1 (P-32, P-33). These walls have been repainted several times and the paint finishes are in good condition.

#### Executive Office Suites

The Executive Office Suites are located at the south end of the building from the fourth to the ninth floors. The walls of the rooms are ash plywood paneling, except for the executive office, which was paneled in vertical tongue and groove American Cherry. The ash plywood paneling is stained and finished with a gloss varnish. The stain used in each office suite appears to be a slightly different color. The existing flush birch door's stained and varnished finish does not match the color or wood grain of the walls. Doors and frames in the cherry paneled executive office were also cherry and were finished to match the walls. Finishing of the American Cherry is similar to that described below under "Secretary and Deputy Secretary's Suites."

#### Secretary's and Deputy Secretary's Suites and Departmental Conference Room

The majority of the interior walls of these office suites are tongue and groove 3/4" x 3" vertical American Cherry. These walls are finished with several coats of gloss varnish (S-

2). The walls on the interiors of the closets are cherry with their original matte finish. The only painted surfaces in the Suites are the exterior plaster and concrete walls with metal fan coil cabinet covers which are primed the same as all of the other exterior surfaces of the building and painted Yellowish White 5Y 9/1 (P-29, P-30, P-31). The paint finishes in the suites are in good condition, however, the gloss varnish is typically chipped at the baseboard and at the bottom of the doors.

There are no painted finishes in the Conference Room. The walls are American cherry paneling, finished with the gloss varnish (S-3) matching the finish of the office suites. This gloss finish accentuates the chatter marks left by the machines that planed the wood. These marks would not be noticeable if the paneling had a matte finish. The interior walls and shelves of the closets are ash, stained and finished with a matte finish.

### **PAINT ANALYSIS CONCLUSIONS**

Based on the historical research and the paint seriation analysis (Exhibit 5-A), the original paint colors and color scheme applied on the exterior and interior of the HUD Building matches that shown in the original construction drawings (see Illus. Nos. 5-1 and 5-2) and specifications (Exhibit 5-C), as modified and documented by correspondence during construction. The Color Board (Exhibit 5-B) was clearly an early submission by the Architects to describe the general color scheme of the building. The Architects' original design intent remained intact through construction, with paint colors chosen to match the adjacent unpainted natural or man-made materials. Adjustments to the original paint colors, made during construction and documented through correspondence, were verified through paint analysis. These minor adjustments were done to make the paint colors match more closely the adjacent unpainted materials and surfaces. Corridor "quadrant" colors, also changed during construction and documented through correspondence, were verified through paint analysis. The only deviation from the original documentation was in the color of the stair handrails, which were painted Yellowish White to match the adjacent concrete instead of the originally specified grey.

### **EXTERIOR ORIGINAL FINISH SCHEME**

The exterior of the HUD Building is defined by the composition and contrast of manmade concrete against natural stone and massive white concrete walls against dark, recessed openings. Color was used on the exterior of the building to achieve this appearance. The black anodized aluminum window frames gave the desired contrast between the light colored precast concrete walls and the recessed windows. At the first floor, dark grey granite was used along with the black anodized aluminum frames at the entrances. These dark materials, along with the continuation of the plaza's bluestone paving into the building, made the wall of the first floor disappear behind the massive concrete pilotis, giving the building the appearance of being completely supported by the pilotis. Where the concrete walls were interrupted by metal doors and frames, the metal was painted Yellowish White to match the concrete, continuing the monolithic appearance of the wall.

Miscellaneous items such as the railings were also painted Yellowish White to match the concrete to which they were attached. Grates at vents and lighting pits were unpainted galvanized metal. The original exterior colors and finishes match those indicated in the original construction documents and correspondence.

## INTERIOR ORIGINAL FINISH SCHEME

### **PUBLIC SPACES**

#### First Floor

Finishes in the first floor entrances and lobbies were natural cleft bluestone flooring, exposed bush hammered concrete walls and sand finished white portland cement plaster ceilings. The articulation of the interior of the first floor was similar to that of the exterior of the building. The dark stone flooring was used to contrast the light colored exposed concrete walls. Doors and frames in the concrete walls were painted Yellowish White, matching the concrete, to preserve the monolithic appearance of the wall. Exposed pipes, plaster toilet vestibule walls and miscellaneous elements were also painted Yellowish White to make them match the adjacent concrete. The elevator doors, however, were painted Dark Grey to contrast with the concrete, similar to the windows on the exterior of the building. The perforated board walls of the telephone recesses were painted Dark Grey to match their original "Oxford Grey" plastic laminate shelves.

The Cafeteria continued the color scheme established in the entrances to the building. Plaster walls were painted Yellowish White to match the exposed concrete of the columns and walls of the room. The floor was a dark colored carpet to contrast with the walls. The ceiling was white, rough textured acoustical tile, similar to the sand finished plaster of the lobby ceilings.

#### Second through Tenth Floors

Elevator lobbies on the upper floors were finished similar to the first floor. The walls were exposed concrete and doors and frames were painted Yellowish White to match the concrete, with the exception of the elevator doors which were painted Dark Grey. The floor was grey vinyl tile and the ceiling sand finished cement plaster. Corridor walls were painted Yellowish White to match the exposed concrete. To aid in orienting the building occupants and visitors, the office doors and transoms in the quadrants of the building were painted different colors: Yellow at the northeast; Black at the southeast; Blue at the southwest; and Orange at the northwest quadrant. The stair doors and frames were painted Yellowish White.

### Stairwells

The only painted finish in the stairs are the metal doors and frames and the stair railings in the corner and garage stairs. Though the drawings called for the railings to be painted grey, paint analysis revealed that they were painted Yellowish White, matching the doors and frames. The wood handrails had a natural finish matching the other natural wood materials in the building.

### Public Toilet Rooms

The plaster walls above the tile wainscot of the toilet rooms were painted blue to match the tile. The ceiling was painted Yellowish White, to match all of the other ceilings in the building.

## **PRIVATE SPACES**

### Typical Offices

The walls of the offices were painted Yellowish White to match all of the other walls in the building.

### Executive Office Suites, Secretary's Suite, Deputy Secretary's Suite and Departmental Conference Room

Cherry boarding and ash plywood paneling are the primary wall materials in these spaces. According to the original construction documents and construction correspondence, the intent was to apply a finish that would express the natural color and grain of the wood. The original finishes have been removed from the walls of the offices and the wood coated with varnish. Walls of the closets have not been refinished and retain their original clear finish. Solvent testing performed on the wood could not identify the original finish systems used on the wood paneling. Refinishing the walls should match the original finishes found in the closets. The plaster exterior walls were painted Yellowish White to match all of the other exterior walls in the building. The birch flush wood doors and frames that have been stained and varnished were originally intended to be painted white to match the corridor finishes.

## **RECOMMENDATIONS**

### JUSTIFICATION FOR RECOMMENDATIONS

Color, along with texture, geometry and mass, was an important element in the building's design. Finishes for natural materials, such as wood and stone, were selected to retain the natural appearance of the materials. Paint colors were very carefully considered and



---

selected by the original architects of the building, Marcel Breuer and Associates. Colors selected were either to be white or gray to blend with natural materials or bright colors which were "assertive, strong and a proper contrast to the monochrome of white, gray and natural tones."<sup>10</sup> Repainting the originally painted materials in the building, removing paint from originally unpainted concrete surfaces and refinishing the wood and stone materials to their original "natural" finish is important to the preservation of the building's materials and restoration of the appearance of the building.

The existing paint scheme of silver metallic paint and thick glossy finishes on wood and stone severely alters the original appearance and design intent of the building. The painted concrete surfaces on the interior of the building will eventually require repainting, resulting in the eventual thick build-up of paint which will obscure the original formed texture of the concrete. Cleaning the exposed concrete to restore its original light color should be done in concert with repainting the originally painted materials to prevent the unfortunate appearance of dirty brown concrete against freshly painted Yellowish White doors, frames and accessories. Maintaining a sound paint coating on the ferrous metals and wood is also necessary to prevent the deterioration of the substrate materials.

Recommendations for the painted finishes of the HUD building are to repaint the originally painted surfaces to match the original color and finish, remove the paint from surfaces never originally intended to be painted and to refinish the clear finished wood to match its original natural finish. Paint colors and finishes should match the original paint colors referenced by the Munsell Color as indicated by the Recommended Colors and Finishes List at the end of this Chapter. This list is the compilation of the original paint schedule as altered during construction and as verified by the Paint Seriation Analysis.

#### LIST OF RECOMMENDATIONS

- Remove paint from concrete columns in Cafeteria and concrete soffit above elevator doors at Floors 2-10 (see specifications for Removal of Paint from Architectural Concrete in Chapter X).
- Paint elements on the exterior of the building and Interior Restoration Zones to match original colors as listed below and as per specifications for Painting in Chapter X.
- Paint birch doors in executive offices white as recommended by the original architects.

---

<sup>10</sup>Letter from Herbert Beckhard, FAIA to Mary Jane Klingelhofer, April 19, 1995. The letter further stated that the "Breuer" red and "Breuer" blue were used all the time, however, "Breuer would never entertain the idea of using green since he felt nature had adequately taken care of that."

- Paint gypsum board entrance and lobby ceiling at first floor to match the sanded finished plaster.
- All surfaces not currently painted should not be painted.

**RECOMMENDED COLORS AND FINISHES LIST**

Listed below are the paint and finishes for the areas of the HUD Building designated as Restoration and Renovation Zones. The first column shows the material and location. The second column shows the color name. The third column shows the closest matching Federal Standard color, which is typically the color specified in the original construction documents. The color and finish determined through paint analysis is shown in the last column. [The asterisk (\*) indicates items where paint analysis was not performed as part of this report. Colors indicated for these items are from the original color schedule or as determined through analysis of similar elements. Also shown is the matching Munsell color.]

**EXTERIOR**

	<u>Color Name</u>	<u>Fed. Std. Color</u>	<u>Munsell Color</u>
Metal Doors & Frames *	Yellowish White	# 17886	5Y 9/1 Gloss
Metal Handrails	Yellowish White	# 17886	5Y 9/1 Gloss
Metal Aeway Grates *	Grey	# 26280 semi-gloss	
Metal Access Panels at * plaster arcade ceiling	White to match plaster ceiling		

**INTERIOR**

Entrances and Lobbies

Metal Doors & Frames	Yellowish White	# 17886	5Y 9/1 Gloss
Elevator Doors & Frames	Dark Grey	# 16081	10G 3/0.5 Gloss
Fire Hose Cabinets	Yellowish White	# 37886	5Y 9/1 Flat
Exposed Pipes	Yellowish White	# 37886	5Y 9/1 Flat
Access Panels & Grills in Ceiling *	White to match the adjacent ceiling		
Ceiling @ 1st Floor *	White to match Sand Finished Plaster		
Ceilings @ Floors 2-10 *	Existing Sand Finished Plaster		

ORANGE  
 Glass  
 Fed. Std. Color #12197  
 Munsell Color 10R 5/16 Gloss  
 Pg. 401

HUD BUILDING

CHAPTER V: PAINT ANALYSIS

<u>Toilet Vestibules</u>			
Plaster Walls *	Yellowish White	# 27886	5Y 9/1 Semi Gloss
Plaster Ceilings *	White		
Metal Doors & Frames	Yellowish White	# 17886	5Y 9/1 Gloss
<u>Telephone Alcove</u>			
Perforated Fiber Board	Dark Grey		N4.5/15.6% R
<u>Cafeteria</u>			
Plaster Walls	Yellowish White	# 27886	5Y 9/1 Semi Gloss
Metal Doors & Frames	Yellowish White	# 17886	5Y 9/1 Gloss
<u>Serving Areas</u>			
Plaster Walls	Yellowish White	# 27886	5Y 9/1 Semi Gloss
<u>Core Stairwells</u>			
White Oak Handrail	Natural Finish		
Metal Doors & Frames	Yellowish White	# 17886	5Y 9/1 Gloss
<u>Corner Stairwells</u>			
Metal Pipe Railing	Yellowish White	# 17886	5Y 9/1 Gloss
Metal Doors & Frames	Yellowish White	# 17886	5Y 9/1 Gloss
<u>Garage Stairwells</u>			
Metal Railing	Yellowish White	# 17886	5Y 9/1 Gloss
Cherry Handrail	Natural Finish		
Metal Doors & Frames	Yellowish White	# 17886	5Y 9/1 Gloss
<u>Corridors</u>			
Plaster Walls	Yellowish White	# 27886	5Y 9/1 Semi Gloss
Stairwell Doors	Yellowish White	# 17886	5Y 9/1 Gloss
Door Frames	Yellowish White	# 17886	5Y 9/1 Gloss
Doors and Transoms in:			
Northeast Quadrant	Yellow	# 13655	2.5Y 8/14 Gloss
Southeast Quadrant	Black	# 17038	N 0.5/0.6% R
Gloss			
Northwest Quadrant	Orange	# 12197	10R 5/16 Gloss
Southwest Quadrant	Blue	# 15123	2.5PB 4/7 Gloss
<u>Toilets</u>			
Plaster Walls	Grey/Yellow-Green	# 26440	10Y 7/0.5 Semi Gloss
Plaster Ceilings	Yellowish White	# 37886	5Y 9/1 Flat
Metal Toilet Partitions	White		N9.5/90%R Gloss

Library

Plaster Walls	Yellowish White	# 27886	5Y 9/1 Semi Gloss
Metal Fan Coil Covers	Yellowish White	# 27886	5Y 9/1 Semi Gloss

Executive Offices

Wood Doors & Frames	Yellowish White	# 17886	5Y 9/1 Gloss
Plaster Walls	Yellowish White	# 27886	5Y 9/1 Semi Gloss
Metal Fan Coil Covers	Yellowish White	# 27886	5Y 9/1 Semi Gloss
Ash Plywood Paneling	Natural Finish		
Cherry Wood Paneling	Natural Finish		

Departmental Conference Room

Cherry Wood Paneling	Natural Finish		
Ash Plywood Paneling	Natural Finish		

Secretary's Suite

Cherry Wood Paneling	Natural Finish		
Plaster Walls	Yellowish White	# 27886	5Y 9/1 Semi Gloss
Metal Fan Coil Covers	Yellowish White	# 27886	5Y 9/1 Semi Gloss
Metal Doors & Frames	Yellowish White	# 17886	5Y 9/1 Gloss

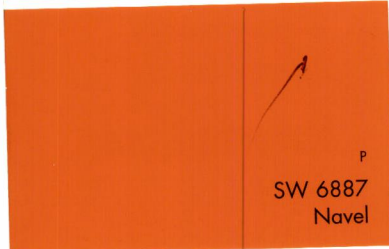
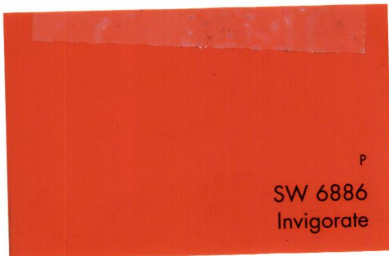


Illustration No. 5-1

Subject: Housing and Urban Development Building, Original and Renovation Construction Drawings, Building #DC0092ZZ

Date: April 14, 1965

Description: Portion of "Color Schedule" (see also Illus. No. 5-2), Drawing No. 5-2, GSA Drawing No. 28, by Marcel Breuer and Associates and Nolen-Swinburne and Associates.

Source: General Services Administration Technical Resources Center, 7th and D Streets SW, Washington, DC

INTERIOR PAINT §

**GENERAL COLOR INSTRUCTIONS**

NOTE:	UNLESS MODIFIED BELOW, OR BY A SPECIAL NOTE, FOLLOW GENERAL COLOR INSTRUCTIONS S.D.G-50-2 WHERE THEY APPLY.
TYPES OF FINISHES:	ALL DOORS, DOOR FRAMES, STAIR RAILS & EXTERIOR PAINT - GLOSS ENAMEL WALLS & COLUMNS IN KITCHEN AREA - GLOSS ENAMEL ALL OTHER PAINTED WALLS & COLUMNS - SEMI-GLOSS ENAMEL ALL PAINTED CEILINGS - LUSTERLESS
ELEVATOR SHAFTS (PASSENGER & FREIGHT)	SHAFT DOORS & FRAMES (BOTH SIDES) - BAKED ENAMEL 16081 GRAY HANGERS, COVERS, FASCIAE, TIE GUARDS, DUST APRONS - 26440 GRAY GUIDE RAILS & SUPPORTS - BLACK CAST IRON SILLS - OILED. SHAFT WALLS - UNPAINTED.
FERROUS METAL IN UNPAINTED AREAS:	UNLESS OTHERWISE NOTED - 26440 GRAY
FLOORS:	ALL FINISHED CONCRETE FLOORS - UNPAINTED.
PERFORATED METAL CEILING DIFFUSERS:	16280 GRAY
STAIRWAYS:	WALLS, CEILINGS, SOFFITS, FASCIAE, PLATFORMS, TREADS, RISERS - UNPAINTED DOORS & FRAMES - 17886 OFF WHITE STAIR RAILS - 16440 GRAY. OTHER FERROUS METAL - 26440 GRAY.
DOORS (SEE KEY PLANS)	SUB-BASEMENT: 16081 GRAY BASEMENT - WEST: 16081 GRAY BASEMENT - EAST: CORE AREAS 17886 OFF WHITE " " " " NE QUADRANT 10080 BROWN " " " " SE QUADRANT 15123 BLUE FIRST FLOOR : 17886 OFF WHITE  2ND THRU 10TH FLOORS: CORE AREAS 17886 OFF WHITE " " " " NE QUADRANT 10080 BROWN " " " " NW QUADRANT 12197 ORANGE " " " " SE QUADRANT 15123 BLUE " " " " SW QUADRANT 16081 GRAY PENTHOUSE 16081 GRAY
DOORS & FRAMES (WALNUT):	NATURAL FINISH (OILED)
DOOR FRAMES (METAL):	SUB-BASEMENT: 16081 GRAY BASEMENT - WEST: 16081 GRAY BASEMENT - EAST: 17886 OFF-WHITE FIRST FLOOR : 17886 OFF-WHITE  2ND THRU 10TH FLOORS: 17886 OFF-WHITE

**SPECIAL COLOR SCHEMES**

SPACE NAME	COLOR NO.
PUBLIC TOILETS:	
WALLS (ABOVE TILE)	26440
CEILINGS	WHITE
FRAMED OPENINGS	17886
DOORS & FRAMES (SUB-BASEMENT)	16081
PUBLIC TOILET VESTIBULES:	
WALLS	27886
CEILINGS	WHITE
DOORS & FRAMES	17886
PRIVATE TOILETS:	
WALLS (ABOVE TILE)	27886
CEILINGS	WHITE
DOOR FRAMES (EXCEPT WALNUT)	17886
DOORS (EXCEPT WALNUT)	QUADRANT COLOR
PRIVATE TOILET VESTIBULES:	
WALLS	27886
CEILINGS	WHITE
DOOR FRAMES	17886
DOORS	QUADRANT COLOR
ADMINISTRATOR'S SUITE, AGENCY CONFERENCE ROOM, COMMISSIONERS' PRIVATE OFFICES:	
WALNUT BOARDING - SEE DETAILS	NATURAL
EXTERIOR WALLS	27886
DOORS & FRAMES (WALNUT)	NATURAL
COMMISSIONERS' SUITES, DEPARTMENTAL CONFERENCE RMS.	
ASH PLYWOOD PANELLING - SEE DETAILS	NATURAL
EXTERIOR WALLS	27886
DOOR FRAMES	17886
DOORS	QUADRANT COLOR
CAFETERIA & SERVING AREAS:	
WALLS (ABOVE TILE)	27886
DOORS & FRAMES	17886
STAFF DINING ROOM:	
WALLS (ABOVE TILE)	27886
DOOR FRAMES	17886
DOORS	15123
KITCHEN, PANTRY & DISHWASH AREA:	
WALLS (ABOVE TILE)	17886
DOORS & FRAMES	17886

Illustration No. 5-2

Subject: Housing and Urban Development Building, Original and Renovation Construction Drawings, Building #DC0092ZZ

Date: April 14, 1965

Description: Portion of "Color Schedule" (see also Illus. No. 5-1), Drawing No. 5-2, GSA Drawing No. 28, by Marcel Breuer and Associates and Nolen-Swinburne and Associates.

Source: General Services Administration Technical Resources Center, 7th and D Streets SW, Washington, DC

# COLOR SCHEDULE

## SPECIAL COLOR SCHEMES

SPACE NAME	COLOR NO.
GENERAL OFFICE SPACE, CORRIDORS, LOBBIES & ALL OTHER PAINTED SPACES NOT SCHEDULED:	
WALLS	2788G
CEILINGS (WHERE PAINTED)	WHITE
DOOR FRAMES	1788G
DOORS	SEE KEY PLANS

## STANDARD COLOR SCHEMES

NONE

## EXTERIOR PAINT & COLOR SCHEDULE

NAME	COLOR NO.
DOORS & FRAMES (TYPICAL)	1788G OFF-WHITE
AREAWAY GRATINGS	2G280 GRAY
RAILINGS	1788G OFF-WHITE
ACCESS PANELS & CASING BEADS (PLAZA SOFFIT)	WHITE (MATCH SOFFIT)
ROOF VENTS	2788G OFF-WHITE
ALL FERROUS METAL NOT OTHERWISE SCHEDULED.	MATCH ADJOINING SURFACE
NON-FERROUS METAL & CAST IRON.	UNPAINTED.

## COLOR LIST - EXTERIOR & INTERIOR

1788G			
2788G			
10080			
12197			
15123			
16081			
16440			
2G440			
2G280			
WHITE			
BLACK			



Illustration No. 5-3

Subject: Housing and Urban Development Building, Original and Renovation Construction Drawings, Building #DC0092ZZ

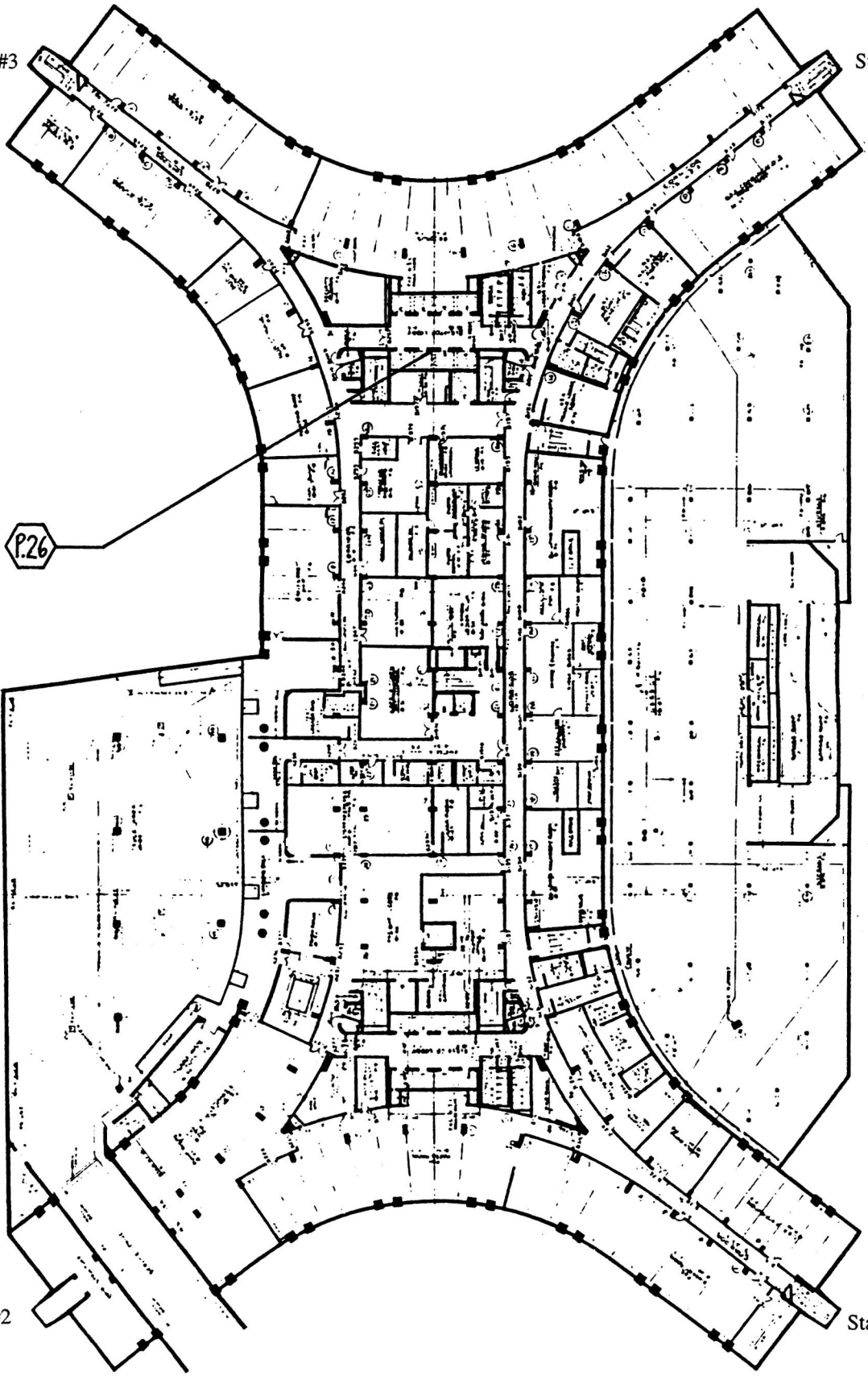
Date: April 14, 1965

Description: Basement Plan, Paint Sample Location. See Exhibit 5-A for paint chromochronology charts.

Source: General Services Administration Technical Resources Center, 7th and D Streets SW, Washington, DC

Stair #3

Stair #4



Stair #2

Stair #1

Illustration No. 5-4

Subject: Housing and Urban Development Building, Original and Renovation Construction Drawings, Building #DC0092ZZ

Date: April 14, 1965

Description: First Floor Plan, Paint Sample Location. See Exhibit 5-A for paint chromochronology charts.

Source: General Services Administration Technical Resources Center, 7th and D Streets SW, Washington, DC

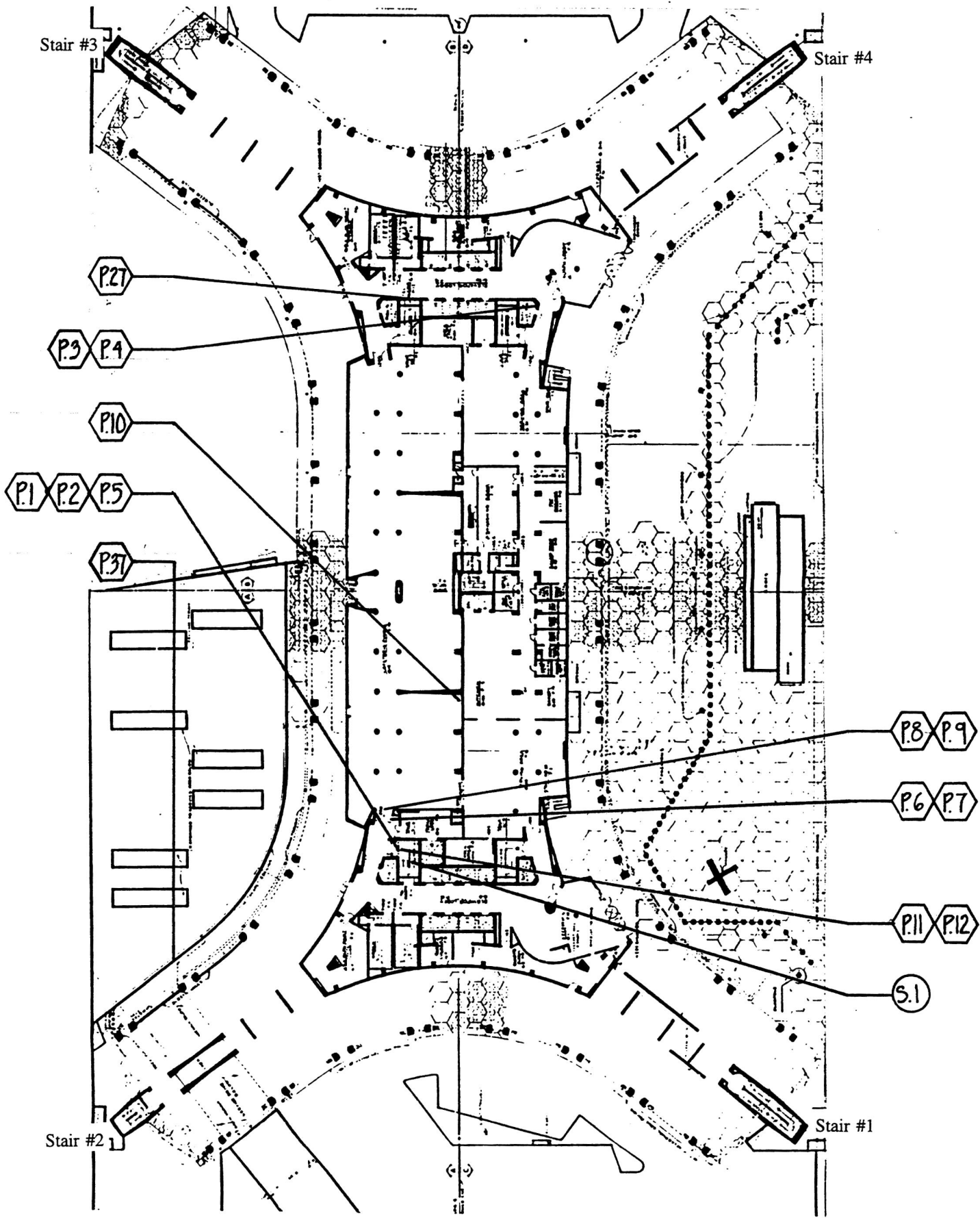


Illustration No. 5-5

Subject: Housing and Urban Development Building, Original and Renovation Construction Drawings, Building #DC0092ZZ

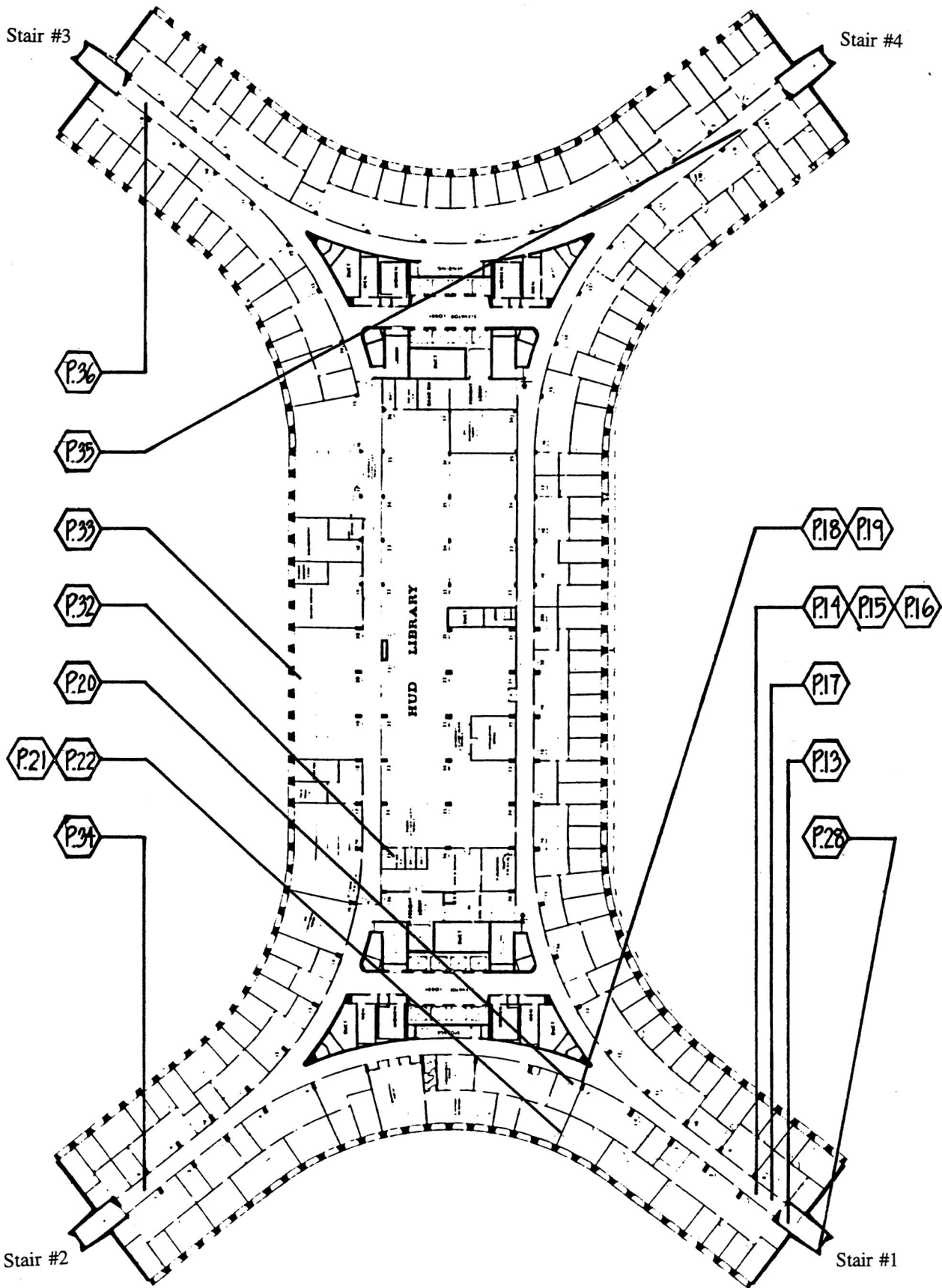
Date: April 14, 1965

Description: Eighth Floor Plan, Paint Sample Location. See Exhibit 5-A for paint chromochronology charts.

Source: General Services Administration Technical Resources Center, 7th and D Streets SW, Washington, DC

Stair #3

Stair #4



Stair #2

Stair #1

Illustration No. 5-6

Subject: Housing and Urban Development Building, Original and Renovation Construction Drawings, Building #DC0092ZZ

Date: April 14, 1965

Description: Tenth Floor Plan, Paint Sample Location. See Exhibit 5-A for paint chromochronology charts.

Source: General Services Administration Technical Resources Center, 7th and D Streets SW, Washington, DC





Exhibit No. 5-A

Subject: Housing and Urban Development Building

Date: December 1994

Description: Color ChromoChronology Charts. Samples with shaded headings indicate analysis required by scope of work. P.1 through P.37 indicate paint samples; S.1 through S.3 indicate clear finishes that were solvent tested. The shaded paint schemes indicate the original paint system, including primer and finish paint. See Illustrations 5-3 thru 5-6 for the locations where samples were taken.

Source: Oehrlein & Associates Architects

# HUD BUILDING - EXTERIOR

WEST ELEVATION							
RAILING @ WEST RETAINING WALL P.37							
SUBSTRATE: STEEL							
COLOR NAME	MUNSELL NO.						
ORANGE	PRIMER						
YELLOW / WHITE	5Y 9 / 1 GLOSS						
BLACK							
GLOSS							

# HUD BUILDING - INTERIOR

## FIRST FLOOR LOBBY DOORS: FRAMES

STAIR #6 DOOR (LOBBY SIDE) P.1*		STAIR #6 DOOR FRAME P.2		ELECTRICAL CLOSET DOOR P.3*		ELECTRICAL CLOSET DOOR FRAME P.4*		FIRE RISER PIPE P.5	
SUBSTRATE:	METAL	SUBSTRATE:	METAL	SUBSTRATE:	METAL	SUBSTRATE:	METAL	SUBSTRATE:	METAL
COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.
DARK GREY	PRIMER	DARK RED	PRIMER	DARK GREY		DARK RED		DARK RED	
YELLOW / WHITE	5Y 9/1 GLOSS	YELLOW/ WHITE	5Y 9/1 GLOSS	YELLOW/ WHITE	5Y 9/1 GLOSS	YELLOW/ WHITE	5Y 9/1 GLOSS	YELLOW/ WHITE	5Y 9/1 FLAT
OFF-WHITE									
				BROWN	OVERPAINT FROM FRAME				
LT. BLUE		DEEP BLUE		LT. YELLOW		BROWN			
		DARK GREY	PRIMER						
LT. BLUE GREEN		STRONG BLUE/ GREEN							
OFF WHITE		OFF WHITE		OFF WHITE		OFF WHITE			
OFF WHITE									
SILVER "METALLIC"		SILVER "METALLIC"		SILVER METALLIC"		SILVER "METALLIC"		SILVER "METALLIC"	

# HUD BUILDING - INTERIOR

## CAFETERIA

DOOR @ SOUTH END @ CAFETERIA P.6*		DOOR FRAME P. 7		DOOR @ SOUTH INTERIOR FACE P.8		INTERIOR OF DOOR FRAME P.9		WALL @ COLUMN #34 P.10*	
SUBSTRATE: METAL		SUBSTRATE: METAL		SUBSTRATE: METAL		SUBSTRATE: METAL		SUBSTRATE: PLASTER	
COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.
DARK GREY	PRIMER	DARK RED	PRIMER	DARK GREY		DARK RED		DARK RED	
YELLOW / WHITE	5Y 9/1 GLOSS	YELLOW/ WHITE	5Y 9/1 GLOSS	YELLOW/ WHITE	5Y 9/1 GLOSS	YELLOW/ WHITE	5Y 9/1 GLOSS	YELLOW/ WHITE	5Y 9/1 SEMI-GLOSS
OFF WHITE									
				BROWN	OVERPAINT FROM FRAME				
LT. BLUE		DEEP BLUE		DARK GREEN		DARK GREEN		YELLOW	
		DARK GREY						OFF WHITE	
								WHITE	DRYWALL COMPOUND
LT. BLUE/ GREEN		STRONG BLUE/ GREEN		OFF WHITE	SEMI-GLOSS	OFF WHITE		LT. GREY	
								WHITE	DRYWALL COMPOUND
SILVER "METALLIC"		SILVER "METALLIC"		GREY	SEMI-GLOSS	GREY		WHITE	SEMI-GLOSS

# HUD BUILDING - INTERIOR

## STAIR #6 @ WEST SIDE OF SOUTH CORE: FIRST FLOOR

DOOR @ STAIR SIDE P.11		DOOR FRAME STAIR SIDE P. 12		STAIR HANDRAIL S.1					
SUBSTRATE: METAL		SUBSTRATE: METAL		SUBSTRATE: WHITE OAK WD.					
COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.				
DARK GREY		DARK RED	PRIMER	ORIG. FINISH REMOVED					
YELLOW / WHITE	5Y 9 / 1 GLOSS	YELLOW/ WHITE	5Y 9/1 GLOSS						
OFF WHITE		OFF WHITE							
				ALCOHOL	NEGATIVE				
				LACQUER THINNER	NEGATIVE				
				PAINT STRIPPER	POSITIVE				
OFF WHITE		OFF WHITE		CLEAR VARNISH	GLOSS				

# HUD BUILDING - INTERIOR

## TYPICAL CORRIDOR: 8TH FLOOR @ SOUTHEAST QUADRANT

WALL NEXT TO STAIR #1 P.13*		TYPICAL DOOR TO ROOM #8102 P.14*		TYPICAL TRANSOM TO ROOM #8102 P.15*		DOOR FRAME STAIR DOOR P.16		STAIR DOOR #1 CORRIDOR SIDE P.17	
SUBSTRATE: PLASTER		SUBSTRATE: WOOD		SUBSTRATE: WOOD		SUBSTRATE: METAL		SUBSTRATE: METAL	
COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.
YELLOW/WHITE	PRIMER	WHITE	PRIMER 10B 6/1	WHITE	PRIMER	DARK RED		DARK GREY	PRIMER
		FLAT GREY		FLAT GREY					
		BLACK GLOSS	N 0.5/0.6% R	BLACK GLOSS	N 0.5/0.6% R				
YELLOW/WHITE	5Y 9/1 FLAT	BLACK GLOSS	N 0.5/0.6% R	BLACK GLOSS	N 0.5/0.6% R	YELLOW/WHITE	5Y 9/1 GLOSS	YELLOW/WHITE	5Y 9/1 GLOSS
						DIRT			
OFF WHITE						OFF WHITE		OFF WHITE	
		BLACK GLOSS	N 0.5/0.6% R	BLACK GLOSS	N 0.5/0.6% R	OFF WHITE		OFF WHITE	
OFF WHITE						OFF WHITE			
		BLACK GLOSS				OFF WHITE		OFF WHITE	
OFF WHITE		GREY SEMI-GLOSS		GREY SEMI-GLOSS		LT. GREY SEMI-GLOSS		GREY SEMI-GLOSS	
OFF WHITE		OFF WHITE GLOSS		BLACK GLOSS		BLACK GLOSS		OFF WHITE	

# HUD BUILDING - INTERIOR

## TYPICAL OFFICE: 8TH FLOOR OFFICE, ROOM #8106

DOOR, OFFICE SIDE P.18*		DOOR FRAME IN OFFICE P.19		WALL ADJACENT TO DOOR P.20*		METAL GRILLE ON EXTERIOR WALL P.21*		WALL ADJACENT TO GRILLE P.22	
SUBSTRATE: WOOD		SUBSTRATE: METAL		SUBSTRATE: PLASTER		SUBSTRATE: METAL		SUBSTRATE: PLASTER	
COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.
WHITE	PRIMER	DARK RED	PRIMER	PALE ORANGE	10YR 8.5/10 PRIMER	GREEN/YELLOW	10YR 8.5/10 PRIMER	PALE ORANGE	10YR 8.5/10 PRIMER
GREY	1ST COAT			YELLOW				YELLOW	
BLACK GLOSS	N 0.5/0.6% R 2ND COAT	YELLOW/WHITE	5Y 9/1 GLOSS	YELLOW/WHITE	5Y 9/1 SEMI-GLOSS	YELLOW/WHITE	5Y 9/1 SEMI-GLOSS	YELLOW/WHITE	5Y 9/1 SEMI-GLOSS
BLACK GLOSS	N 0.5/0.6% R								
WHITE		WHITE		WHITE		WHITE		WHITE	
		ORANGE		ORANGE		ORANGE		ORANGE	
TAN		TAN		TAN		TAN		TAN	
OFF WHITE		OFF WHITE		OFF WHITE		OFF WHITE		OFF WHITE	
TAN		TAN				TAN			
WHITE		WHITE				WHITE			
GREY		GREY		OFF WHITE		GREY		OFF WHITE	

# HUD BUILDING - INTERIOR

## TYPICAL TOILET ROOM: 10TH FLOOR @ SW CORNER OF CORE

MEN'S TOILET CEILING		MEN'S TOILET WALL		MEN'S TOILET PARTITION	
P.23*	MUNSELL NO.	P.24*	MUNSELL NO.	P.25*	MUNSELL NO.
SUBSTRATE: PLASTER		SUBSTRATE: PLASTER		SUBSTRATE: METAL	
COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.
PALE ORANGE/ YELLOW	PRIMER	PALE ORANGE/ YELLOW	PRIMER		
YELLOW/ WHITE	5Y 9/1 FLAT	GREY/YELLOW GREEN	10Y 7/0.5 SEMI-GLOSS	WHITE	N 9.5/90% R GLOSS
		LT. BLUE			
		TAN		BLUE	
LT. BLUE		LT. BLUE			
LT. BLUE					
LT. BLUE		LT. BLUE		BLUE/ GREY	



# HUD BUILDING - INTERIOR

## MISCELLANEOUS PAINT SAMPLES

ELEVATOR DOORS		TELEPHONE BOOTH		STAIR #1 PIPE	
@ BASEMENT P.26*	METAL	WALL @ 1ST FLR. P.27*	PERF. FIBR. BD.	RAILING	P.28*
SUBSTRATE:	MUNSELL NO.	SUBSTRATE:	MUNSELL NO.	SUBSTRATE:	MUNSELL NO.
COLOR NAME	PRIMER	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.
DARK GREY	10G 3/0.5	DARK GREY	N 4.5/15.6% R	DARK RED	PRIMER
				YELLOW/ WHITE	5Y 9/1
		OFF WHITE			
		OFF WHITE			
		YELLOW			
		OFF WHITE			
GREY	10YR 7/1	GREY		GREY	

# HUD BUILDING - INTERIOR

SECRETARY'S SUITE AND DEPARTMENT CONFERENCE ROOM (#10233)									
CONCRETE WINDOW SILL		FAN COIL CABINET COVER		EXTERIOR WALL		INTERIOR WALL		DEPT. CONFERENCE ROOM	
P.29*		P.30*		P.31*		S.2*		S.3*	
SUBSTRATE:	PREC. CONC.	SUBSTRATE:	METAL	SUBSTRATE:	PLASTER	SUBSTRATE:	CHERRY WD.	SUBSTRATE:	CHERRY WD.
COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.
YELLOW/ GREY	2.5Y 8.9/2 PRIMER	GREEN/ YELLOW	PRIMER	YELLOW/ GREY	2.5Y 8.5/2 PRIMER	ORIG. FINISH REMOVED		ORIG. FINISH REMOVED	
YELLOW/ WHITE	5Y 9/1 SEMI-GLOSS	YELLOW/ WHITE	5Y 9/1 SEMI-GLOSS	YELLOW/ WHITE	5Y 9/1 SEMI-GLOSS				
OFF WHITE		OFF WHITE		OFF WHITE					
OFF WHITE		OFF WHITE		OFF WHITE					
						ALCOHOL	NEGATIVE	ALCOHOL	NEGATIVE
						LACQUER THINNER	NEGATIVE	LACQUER THINNER	NEGATIVE
						PAINT STRIPPER	POSITIVE	PAINT STRIPPER	POSITIVE
OFF WHITE		OFF WHITE		OFF WHITE		CLEAR VARNISH	GLOSS	CLEAR VARNISH	GLOSS

# HUD BUILDING - INTERIOR

## LIBRARY AND 8TH FLOOR CORRIDOR DOORS

LIBRARY PLASTER WALLS P.32*		LIBRARY METAL GRILL @ WINDOW P.33*		OFFICE #8216 DOOR (NEAR STAIR #4) P.35		OFFICE #8172 DOOR (NEAR STAIR #4) P.36		OFFICE #8268 DOOR (NEAR STAIR #3) P.36	
SUBSTRATE: PLASTER		SUBSTRATE: SHT. METAL		SUBSTRATE: WOOD		SUBSTRATE: WOOD		SUBSTRATE: WOOD	
COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.	COLOR NAME	MUNSELL NO.
PALE ORANGE	10YR 8/4	GREEN/	10Y 8.5/10						
YELLOW	PRIMER	YELLOW	PRIMER						
YELLOW/ WHITE	5Y 9/1 SEMI-GLOSS	YELLOW/ WHITE	5Y 9/1 SEMI-GLOSS	BLUE	2.5PB 4/7	YELLOW	2.5Y 8/14	ORANGE	10R 5/16
				NOTE: ONLY ORIGINAL COLOR OF DOORS WAS COLOR MATCHED. PRIMERS AND UNDERCOATS WERE NOT LISTED AND BECAUSE SAMPLES WERE TAKEN FROM UNDER KICK PLATE THERE WERE NO SUBSEQUENT COLORS.					
		OFF WHITE							
OFF WHITE		OFF WHITE							

**Exhibit No.** 5-B

**Subject:** Housing and Urban Development Building

**Date:** Undated

**Description:** Color Board - "Interior Paint and Color Scheme" Presentation Board

**Source:** Housing and Urban Development Building, Room 5162, 451 Seventh Street SW, Washington, DC

**EXHIBIT 5-B**

**COLOR BOARD - "INTERIOR PAINT AND COLOR SCHEME"**

26280	Grey (Dark)	37866	White
26440	Grey (Medium)	27866	White
		17886	White

<u>CORES:</u>	SW	NW
	16081	12197
	Grey	Red
	SE	NE
	15123	10080
	Blue	Brown

**GENERAL COLOR INSTRUCTIONS**

Alcoves	Match adjoining spaces
Ceilings	37886 White
Chutes	26280 Grey
Closets	Match walls of adjoining spaces
Columns	Match adjoining walls
Conveyors	26280 Grey
Counters	Match door unless natural finish required
Door Checks	Match adjoining surface
Doors	(see Quadrant)
	Core area 17875 White
Door Bucks	(In concrete or unpainted walls)
	26295 Grey (not shown)
Door (Access)	Match adjoining surfaces
Door (Exposed)	Match adjoining surfaces
Elevator Shafts	
Passenger:	Walls - unpainted
	Doors - 16081 Grey
	Door hanger covers and fascia plates - 26440
	Grey
	Guide rails and supports - Black
Freight:	Walls - unpainted
	Doors - 26280 Grey
	Guide rails and supports - Black
Electrical Cabinets and Boxes	Match adjoining surfaces
Floors (concrete)	Finished and unpainted

**EXHIBIT 5-B - "INTERIOR PAINT AND COLOR SCHEME"**

Door Frames (steel)	27886 - Off-white
Door Frames in Painted Walls	Match adjoining surfaces
Interior Doors Between Rooms	Use Quadrant color
Exterior and Core Wall Doors	17886 Off-White
Grilles	Match adjoining surfaces
Louvers	Match adjoining surfaces
Movable Partitions	Match room walls
Pipe Rails	26280 Grey
Telephone Recesses	Match adjoining walls
Refrigerator (Walk-in)	Walls - white; Ceiling - aluminum paint
Shelving (closet)	Match walls
Stairways	Unpainted except for ferrous metals
Subdividing Office Partition	Match room colors
Toilet Partitions and Doors	White baked enamel
Vault Doors and Trim	Match room doors
Ferrous Metals	In unpainted areas 26280 Grey
Perforated A/C Diffusers	16440 Grey

**Special Color Schemes**

**Public Toilets**

Walls above tile	26440
Ceilings	37886
Doors	17875

**Toilet Vestibules, Health Unit, Admin's Kitchen**

Walls	37866
Ceiling	37886
Doors	*

**Freight Lobbies, Locker Rooms, Darkrooms, Retail Store, Lobby, Basement Kitchen, Post Office**

Walls	Unpainted
Ceiling	Acoustic tile
Doors	*

**General Offices, Credit Union, Blind Stand, Library, Basement Offices**

Walls	37886
Ceiling	Acoustic tile
Doors	*

**Elevator Lobbies**

Doors	*
-------	---

**EXHIBIT 5-B - "INTERIOR PAINT AND COLOR SCHEME"**

Cafeteria, Staff Dining Room, Serving Areas

Columns and Walls Above Tiles	27875
Doors	17875

Kitchen, Pantry, Dishwashing

Columns and Walls Above Tiles	17875
Doors	17875

Walk-in Refrigerator and Canwash

Walls	White
Ceiling	Aluminum paint

Corridors and Vending

Columns and Walls	37886
Doors	*

Private Toilets - Walls Above Tile

Ceiling	37886
Doors	*

\*See general color scheme

Exhibit No. 5-C

Subject: Housing and Urban Development Building Original Specifications

Date: April 1, 1965

Description: Section 46, Painting and Finishing Specification, including Standard Detail Sheets 6-50-2K and "General Color Instructions Interior Color Schemes," by Marcel Breuer and Associates and Nolen-Swinburne and Associates.

Source: Original specifications for the projects were found at the Housing and Urban Development Building, Rooms 5162 and B-248, 451 Seventh Street SW, Washington, DC



SECTION 46

PAINTING AND FINISHING  
PART I - ARCHITECTURAL

46-01 GENERAL

a. Work as listed for the following items is included under other sections which should be reviewed for details:

<u>Item</u>	<u>Work</u>
Structural metal	Shop and erection priming
Miscellaneous metal (ferrous)	Shop priming
Ornamental metal (ferrous)	Shop priming
Hollow metal	Prime coat
Sheet metal	Prime coat
Metal covered work	Shop priming
Millwork and finish:	Shop coat (see detailed requirements under WOODWORK)
Wood cabinet work:	Finish complete, or except for field coats, as specified.
Vault door	Prime coat

b. Number of ground and finish coats specified are in addition to priming coat whether required by this Section or specified under other Sections of the specifications. The term paint, as used throughout the specification, shall mean any coating that does not show the grain of wood.

c. Surfaces which are painted shall not show the ground coats through the finish and any additional coats required shall be applied at the Contractor's expense.

d. Items not primed before delivery shall be primed or sealed as specified for similar items before applying ground coats.

e. Where color schedule on drawings lists items as factory finished, under other Sections of the specification, such listing is for the purpose of indicating color, not as requiring field painting, except touching up abrasions.

f. At completion of work of other trades, painted and finished surfaces shall be touched up and restored where damaged or defaced.

#### 46-02 COLOR DESIGNATIONS

a. Numbers given after "color" in color schedules on drawings include full information relating to paint finish and color and are based on Federal Standard No. 595.

#### 46-03 MATERIALS

a. Materials shall meet requirements of referenced Federal Specifications and ASTM Standards and shall be used in accordance with manufacturer's printed directions. Materials shall be products of well-known manufacturers and shall be delivered in original unbroken packages bearing Manufacturer's name and brand.

The following optional paints and enamels may be substituted for specified types of similar use, and as recommended in referenced Federal Specifications and subject to approval by the Service. Primers and undercoaters shall be of the same manufacture as the final coat.

Paint, latex base, interior, flat, white and tints	TT-P-29b
Paint, alkyd, odorless, interior, flat, white and tints	TT-P-30b
Paint, styrene-butadiene and styrene-acrylate solvent type (for exterior masonry)	TT-P-0097a
Paint, styrene-butadiene emulsion, exterior	TT-P-0099a
Paint, oil; titanium-lead-zinc and oil, exterior, ready-mixed, white and light tints	TT-P-102a
Paint, oil; lead free chalk-resistant, exterior, ready-mixed, white and tints	TT-P-00105
Enamel, odorless, alkyd, interior, high gloss, white and light tints	TT-E-505a
Enamel, alkyd, lusterless, quick-drying	TT-E-515
Enamel, alkyd, lusterless	TT-E-527a
Primer, coating, latex base, interior, white (for gypsum wallboard)	TT-P-00650

Other Contractor proposed optional acrylic, polyester, vinyl and epoxy type paints and enamels for similar use as paints and enamels specified in SCHEDULE OF PAINTING AND FINISHING may be considered upon submitting satisfactory evidence to the Service that the paints have been tested by an approved nationally recognized testing laboratory and meet or exceed the minimum qualitative requirements of the substituted referenced paints or enamels. Certificates as specified in Section SAMPLES will be accepted as

satisfactory evidence. Certificates shall include results of tests under accelerated weathering conditions for chalking, washability and abrasion.

b. Color pigments shall be pure, non-fading, 99 percent passing a No. 325 sieve. Color pigments for use on masonry, concrete or plaster surfaces shall be limeproof.

c. Undercoat for colored enamel shall be tinted to approximate color of finish coat.

d. Specular gloss value shall be in accordance with Federal Specification if differing with value noted on Standard Detail.

e. Job mixed aluminum paint shall be used within 4 hours or wasted.

f. Aluminum bituminous paint, ASTM D 1187, for use over bituminous coatings shall prevent stain from bleeding through. The pigment and vehicle shall be delivered in separate containers and mixed on the job. Paint shall cover completely in one coat and dry to a bright aluminum color.

g. Bleaches shall be neutralized before applying finish coats.

h. Cement-Water Paint: Type II for exterior use; either Type I or Type II for interior use. Class A or B as best suited for the purpose. Color pigment shall not be in excess of 4 percent by weight. Paint shall be mixed in quantity for use within 4 hours after mixing. Mixed paint not used in the course of a work period shall be wasted.

i. Pigments for cold water paint shall be added at the factory.

j. Concrete stain shall be penetrating acid or metallic salt solution, sunproof, waterproof; of permanent color.

k. The first coat of exterior oil paint may be thinned with not more than one pint of turpentine or mineral spirits to each gallon, where more than one coat is specified.

l. Zinc sulphate wash shall consist of 2 pounds of zinc sulphate per gallon of water to which a small amount of washing blue of phenolphthalein has been added to produce color. The wash shall be applied liberally and allowed to dry 24 hours before priming.

m. Test reports and certificates of conformance for paint products shall be submitted for approval as specified under Section SAMPLES.

n. Materials shall be stored out of the weather and protected from freezing. Necessary precautions shall be taken to prevent and control fire by: Keeping all stored materials in closed metal containers, storing rags, waste and similar materials in covered metal containers, and providing at least one 2-B fire extinguisher for each 200 square feet of area occupied for paint storage and mixing.

o. Paint and enamel shall be kept free from skins or lumps and well stirred during use.

p. Varnish and lacquer shall not be thinned unless required by Manufacturer's published directions for application.

#### 46-04 COLOR SAMPLES

a. Finished surfaces shall match samples of colors and finishes furnished by the Service. Slight modifications in color may be required without additional cost.

b. Before proceeding with interior painting, one room, space or item of each color scheme, showing selected color, finish, texture and workmanship shall be completed. After approval these items shall serve as a standard for similar work throughout.

c. The Contractor shall submit finished samples approximately 3 by 6 inches, of each kind of woodwork in natural finish. Approved samples will remain on file for comparison until completion and acceptance of the work.

#### 46-05 COLOR SCHEME

a. See exterior and interior paint and color schedule on drawings and standard details for colors and color schemes.

b. Exposed metal accessories in connection with mechanical and electrical work in finished areas, shall be painted the color of the background work, except where safety colors are required.

c. Exposed surfaces of steel and iron items shall be primed and finished in color to match work to which attached.

d. Identification painting and marking of mechanical items are specified in Mechanical and Electrical Equipment Section.

#### 46-06 TYPE FINISHES, INTERIOR

a. Undercoaters, primers and sealers shall be of same brand and of same manufacture as finish coat.

b. The following type finishes are referenced in schedule of Painting and Finishing.

##### SEMI-GLOSS ENAMEL - TYPE 1

Prime/Shop coat	Specified under other sections
First Coat	Undercoater, TT-E-543
Second Coat	Enamel, interior semi-gloss, TT-E-508, TT-E-509a, or TT-E-529a; use TT-P-61d for semi-gloss, black.

SEMI-GLOSS ENAMEL - TYPE 2

Prime/Shop Coat	Specified under other sections
First coat	Undercoater, TT-E-543
Second coat	1/2 Undercoater, TT-E-543 1/2 Enamel, interior semi-gloss, TT-E-508, TT-E-509a or TT-E-529a.
Third coat	Enamel, interior semi-gloss, TT-E-508, TT-E-509a or TT-E-529a; use TT-P-6ld for semi-gloss, black.

SEMI-GLOSS ENAMEL - TYPE 3

First coat	Primer, TT-P-56b
Second coat	Undercoater, TT-E-543
Third coat	Enamel, interior semi-gloss, TT-E-508, TT-E-509a or TT-E-529a; use TT-P-6ld for semi-gloss, black.

EGGSHELL ENAMEL - TYPE 4

Prime/Shop Coat	Specified under other sections
First coat	Undercoater, TT-E-543
Second coat	Mix one part undercoater (TT-E-543) with eight parts enamel, interior semi-gloss, TT-E-508, TT-E-509a or TT-E-529a; use TT-P-6ld for black. Use TT-E-485 for "Rust Inhibiting" coating on metals in severe exposure locations.

EGGSHELL ENAMEL - TYPE 5

Prime/Shop coat	Specified under other sections
First coat	Undercoater, TT-E-543
Second coat	1/2 Undercoater, TT-E-543 1/2 Enamel, interior semi-gloss TT-E-508, TT-E-509a or TT-E-529a.

Third coat

Mix one part undercoater (TT-E-543) with eight parts enamel, interior semi-gloss, TT-E-508, TT-E-509a or TT-E-529a; use TT-P-61d for black.

**EGGSHELL ENAMEL - TYPE 6**

First coat

Primer, TT-P-56b

Second coat

Undercoater, TT-E-543

Third coat

Mix one part undercoater (TT-E-543) with eight parts enamel, interior semi-gloss, TT-E-508, TT-E-509a or TT-E-529a; use TT-P-61d for black.

**GLOSS ENAMEL - TYPE 7**

Prime/Shop coat

Specified under other sections

First coat

Undercoater, TT-E-543

Second coat

Enamel; interior gloss, TT-E-506c or TT-E-491. Use TT-E-489c for pumps, machinery motors, fans, and the like and on metal surfaces exposed to oil.

**GLOSS ENAMEL - TYPE 8**

Prime/Shop coat

Specified under other sections

First coat

Undercoater, TT-E-543

Second coat

1/2 Undercoater, TT-E-543  
1/2 Enamel, interior gloss, TT-E-506c.

Third coat

Enamel; interior gloss, TT-E-506c.

**GLOSS ENAMEL - TYPE 9**

First coat

Primer, TT-P-56b

Second coat

Undercoater, TT-E-543

Third coat

Enamel; interior gloss, TT-E-506c.

LUSTERLESS PAINT - TYPE 10

First coat

Primer, TT-P-56b

Two coats

Paint, Interior Flat, oil,  
TT-P-51e  
or Interior Flat, Alkyd,  
TT-P-30b

LUSTERLESS PAINT - TYPE 11

Two coats

Paint, black; cold-water  
TT-P-23a, Type II, or  
resin-base emulsion,  
TT-P-88a.

LUSTERLESS PAINT - TYPE 12

Two coats

Paint; Resin-base Emulsion,  
TT-P-88a

LUSTERLESS PAINT - TYPE 13

One coat

Paint; non-penetrating flat,  
TT-P-47a

or

Two coats

Paint; Resin-base Emulsion,  
TT-P-88a

46-07 SCHEDULE OF PAINTING AND FINISHING, INTERIOR

Metal Surfaces:

Type Finishes

Ferrous metal not otherwise speci-  
fied including but not restricted  
to exposed structural steel, hol-  
low metal items, recesses, exposed  
piping of convectors, including ex-  
posed risers and connections, plates,  
and floor register faces and their  
frames.

Semi-gloss enamel,  
Type 1.

Unplated steel and iron hardware,  
exposed conduit and fittings, bus  
duct, raceways, cabinets, junc-  
tion boxes and other miscellane-  
ous electrical enclosures.

Type of finish and  
number of coats to  
match surfaces on  
which installed.

Metal surfaces noted eggshell

Eggshell enamel,  
Type 4.

Type finishes

Metal surfaces noted gloss enamel

Gloss enamel, Type 7

Painting of pipe covering and exposed piping and equipment of plumbing, heating and ventilating systems (other than those specified herein)

See Part II, - Mechanical of this Section.

Sheet Metal:

Exposed zinc-coated, terne plate and black sheet surfaces

Clean with benzine  
Semi-gloss enamel,  
Type 1.

Wood Surfaces:

Woodwork not otherwise specified

Semi-gloss enamel,  
Type 2.

Wood surfaces in unfinished spaces, including the inside of exterior doors, windows, sash and frames

Same finish as exterior wood surfaces.

Woodwork noted eggshell

Eggshell enamel,  
Type 5.

Woodwork noted gloss enamel

Gloss enamel,  
Type 8.

Woodwork and wood cabinet work finished natural (to match approved sample).  
Walnut Paneling, Walnut doors and trim, Walnut Shelving.

First coat

Oil hand rubbed, allowed to dry thoroughly and steel woolled.

Second coat

Oil hand rubbed and, while wet, treated with wet sand surfacing, then allowed to dry thoroughly



Type finishes

Third and Fourth coat                      Oil hand rubbed,  
allowed to dry  
thoroughly, and  
steel wooled.

Fifth coat                                      Hand rubbed  
paste wax.

(Oil shall be a deep penetrating oil; steel wool shall  
be a very fine grade.)

Ash paneling, trim and shelving shall have the following finish:

After sanding perfectly smooth with No. 00 sandpaper, thoroughly dust  
and apply one coat of varnish, gloss, thinned with not more than 1/2 pint  
of turpentine per gallon - allow to dry hard, then lightly sand, when  
dry, with No. 6/0 or finer sandpaper. Apply second coat of same varnish,  
sand as above and then apply third coat full flowing, unthinned to a  
satin finish.

Wood items which are shop finished                      After erection,  
touch up all  
marred surfaces.

Unexposed edges of doors                                      Touch up after  
fitting and finish  
same as exposed  
surfaces.

Flooring:

Wood stair risers and nosings                                      Same finish as  
other standing trim.

Plaster:  
Concrete:  
Masonry:

Vertical surfaces not otherwise  
specified    Lusterless paint  
Type 10

Overhead surfaces not otherwise  
specified    Lusterless paint  
Type 12

Vertical and overhead sur-  
faces in toilets, kitchens,  
bathrooms, service closets,  
gear rooms, locker rooms  
and similar spaces    Semi-gloss enamel,  
Type 3.

Type finishes

Vertical and overhead sur-  
faces noted eggshell

Eggshell enamel,  
Type 6.

Vertical and overhead sur-  
faces noted gloss enamel

Gloss enamel,  
Type 9.

Vertical and overhead sur-  
faces in boiler rooms, stor-  
age rooms vaults, inside  
mailing vestibule (Concrete  
and masonry only)

Lusterless paint,  
Type 13.

Miscellaneous:

Elevator shafts, penthouses,  
machine rooms, except floors

Lusterless paint,  
Type 13

46-08 SCHEDULE OF PAINTING AND FINISHING, EXTERIOR

Metal:

Ferrous metal

Prime coat, TT-P-615h,  
type suitable 2 coats  
exterior oil paint,  
TT-P-81d.

Zinc-coated metal

1 coat zinc dust-zinc  
oxide primer, TT-P-  
641b, 2 coats exterior  
oil paint, TT-P-81d.

Miscellaneous:

Glazing compound (exterior  
and interior wood and steel  
sash)

Type of paint or  
enamel and number  
coats to match  
adjacent work.

Sheet Metal:

Exposed copper and lead-  
coated copper

2 coats exterior oil  
paint, TT-P-81d.

Zinc-coated metal

1 coat zinc dust-zinc  
oxide primer, TT-P-  
641b, 2 coats exterior  
oil paint, TT-P-81d.

Aluminum

1 coat zinc yellow  
primer, TT-P-666a.  
2 coats exterior  
oil paint, TT-P-81d.

Woodwork (paint finish):

Type finishes  
1 coat primer, TT-P-25a  
2 coats exterior oil  
paint, TT-P-8ld.

Woodwork (natural finish):

1 coat stain,  
TT-S-706, if required.  
1 coat filler,  
TT-F-336b,  
on open grain woods.  
2 coats spar var-  
nish, TT-V-12le.

#### 46-09 SURFACE PREPARATION

- a. Surfaces shall be clean, dry and free from dust.
- b. Woodwork shall be smooth and free from raised grain and surface imperfections. Knots and pitch streaks shall be washed with mineral spirits and shellacked before painting. Nail holes, cracks and similar blemishes shall be puttied and sanded smooth after priming or staining and before ground or finish coats are applied. Putty shall be colored to match stained work.
- c. Masonry, concrete and Portland cement plaster surfaces shall have grease and oil spots removed with cleaning compound and rinsed with clean water. Efflorescence shall be removed by washing with a 5 to 10 per cent solution of muriatic acid. When effervescing ceases remove acid by rinsing with clean water. Surfaces of concrete shall be washed with zinc sulphate solution. Slick or glazed areas of concrete shall be sand-blasted, or scrubbed with wire brushes, and washed clean.
- d. Aluminum shall be cleaned with a mild solution of phosphoric acid containing degreasing compound, rinsed with clean water and allowed to dry before painting.
- e. Ferrous metal shall be cleaned of all foreign materials, including rust and mill scale.
- f. Zinc-coated metal shall be cleaned of all contaminants and grease with mineral spirits.
- g. All surfaces of plaster finish that are to be painted shall age at least sixty calendar days. Surfaces receiving latex type paints may be painted after the aging period. Surfaces receiving oil-base type paints shall be tested, prior to painting, using one of the following methods:
  1. Electric moisture meter.
  2. Apply on the plaster surfaces at various spots a drop of one percent phenolphthalein solution in alcohol. If spots turn deep pink immediately, the surfaces are not sufficiently dry to be painted with oil-base paint.

3. Apply on Portland cement plaster surfaces a three foot square sample of the prime coat, tinted to a medium green with chrome green deep. If the painted squares are undamaged and not discolored at the end of three days, painting may be started.

If the moisture test methods indicate that moisture exists to a degree that would result in damage to oil-base paint, an additional thirty-day curing period shall be allowed and the moisture tests repeated. Painting may proceed when surfaces are determined, to the satisfaction of the Construction Engineer, to be cured to condition to receive oil-base paint. The use of zinc sulphate solution wash will be at the discretion of the Construction Engineer.

h. Water shall not be used for cleaning woodwork and wood floors.

i. Concrete floors shall be washed with 1 part hydrochloric acid and 9 parts water, to remove surface traces of non-dusting treatment, then rinsed with clean water.

#### 46-10 APPLICATION

a. Adjacent surfaces shall be protected against spatters, stains or soiling. Each coat of primer, paint, or varnish shall be evenly spread, without skips, runs, sags and clogging and allowed to dry before next coat is applied. Each coat of paint shall vary in tint from preceding coat. Finish painted surfaces shall be free of clouding due to non-coverage of ground coats or surfaces to which applied. Wet film thickness of paint applied shall be not less than three mils for each coat, or the equivalent spreading of not more than 535 square feet to each gallon of paint at normal brush application. Finish coat shall match approved color samples. Edges adjoining other materials or colors shall be true without overlapping. Each coat shall be applied to ornamental work in a manner which will not obscure ornament and texture.

b. Paint shall not be applied when temperature is below 50 degrees F. Varnish and enamel shall not be applied when temperature is below 70 degrees F.

c. Interior spaces shall be protected from dust, dirt and drafts during painting and finishing.

d. Paint containing turpentine shall not be used in telephone equipment and telephone switchboard rooms. Mineral spirits shall be used as thinner in such areas.

e. Enamel, varnish or lacquer undercoats on wood shall be lightly sanded or rubbed smooth.

f. Fillers and sealers shall be applied in accordance with manufacturer's printed directions.

g. Sealer shall be natural color, except first coat shall have sufficient stain to correct marked variations in color of wood. Allow each coat to

dry, then buff to a smooth flat finish with a single disk electric floor polisher with wheels free of floor. No traffic shall be allowed during finishing. Finished areas shall be protected by coverings until final acceptance by the Government.

h. First coat of rubber-base paint for concrete surfaces shall be thinned with 1 quart of thinner per gallon of paint. Second and third coats shall be applied without thinning. Allow to dry 48 hours between coats.

#### 46-11 COMPLETION

a. Finished areas shall be clean, free of dust, debris, or defects. Glass and hardware shall be free of paint.

J.H.M.  
 10-11-63  
 "AB"  
 10-11-63  
 "AE"  
 R.S.J. 9/10/63  
 "DB"  
 10-11-63  
 "ME"  
 10-11-63  
 "S"  
 GSA WASH DC 64-5301

GENERAL COLOR INSTRUCTIONS

(These apply, unless otherwise scheduled or noted)

ALCOVES: Match adjoining spaces  
 BASE: (Painted on) 5-5/8 inches high. Match door  
 BASE: (Cement, Wood or Metal) Match door  
 BEAMS: Match ceiling  
 BOOKCASES: Painted or natural finish as required to match walls  
 CABINETS: Match adjoining surfaces, inside and outside  
 CELLS: Benches, Grilles and Frames; match walls  
 CEILINGS: White. (See closets for modification)  
 CHAIR RAILS: Match wainscot  
 CHUTES: 26280  
 CLOSETS: Coat, Linen and Supply; walls and ceilings to match wall of adjoining spaces  
 COLUMNS: Match wall  
 CONDUITS: Exposed; match adjoining surfaces  
 CONVEYORS: Housing, hangers, supports, etc.-26280  
 CORNICES & COVES: At ceiling; match ceiling  
 COUNTERS: Painted to match door unless natural finish is required  
 COUNTERS (P.O. Lobby): Workroom side only; 23531  
 DOOR CHECKS: Match adjoining surfaces  
 DOORS (Unless otherwise scheduled): Match wall  
 DOOR TRIM (in walls with wainscot): Match wall  
 DOOR TRIM (in walls without wainscot): Match wall  
 DOORS, ACCESS: Match adjoining surfaces  
 DRESSING ROOMS: Match adjoining spaces  
 DUCTS: Exposed; Match adjoining surfaces  
 DUMBWAITER SHAFTS:  
     Walls, white  
     Doors and trim, shaft side; match room side  
     \*Guide rails and other ferrous metal work; black  
 ELEVATOR SHAFTS:  
     Passenger: Walls, white  
                 Doors, shaft side; match lobby side  
                 Hanger covers, fascias, toe guards,  
                 dust aprons; 26440  
                 \*Guide rails and supports; black  
                 Cast iron sills; oiled  
     Freight: Walls, white  
                 Doors, shaft side; 26280  
                 \*Guide rails and supports; black  
                 Exposed ferrous metal work; 26280

FILE NO.		GENERAL COLOR INSTRUCTIONS INTERIOR COLOR SCHEMES	Sheet 1 of 1	
DATE			DWG. NO.	6-50-2K
REVISED	10-15-63	PUBLIC BUILDINGS SERVICE GENERAL SERVICES ADMINISTRATION		STANDARD DETAIL

GENERAL COLOR INSTRUCTIONS

(Continued)

ELECTRICAL CABINETS, JUNCTION BOXES, ETC. (Exposed): Match adjoining surfaces

FACE BRICK: Unpainted

FACTORY FINISHED ITEMS: See specifications

FLOORS (Concrete): The following rooms or spaces with finished concrete floors shall be painted 26280

Elevator machine rooms and secondary levels

Locker Rooms

Mechanical equipment rooms

\*\*Stairs; floors, platforms, treads and risers

Switchboard rooms and wire closets

Toilet Rooms

Transformer Rooms

All other concrete floors shall be unpainted unless scheduled or noted otherwise

FUEL ROOMS: Walls, ceiling and floors; unpainted

Doors, trim and ferrous metal; match adjacent spaces

GRILLES: Match adjoining surfaces

INSECT SCREEN FRAMES: Match window trim

LOOKOUT GALLERY & SHAFTS (P.O.): All inside surfaces, black; outside walls, match walls of room; underside of lookout, white

LOUVERS: Match adjoining surfaces

MAILING VESTIBULES (P.O.): Match P.O. workroom

MECHANICAL EQUIPMENT: See specifications

MECHANICAL EQUIPMENT FOUNDATIONS: Match equipment

MOVABLE PARTITIONS AND DOORS: Match walls of room

NICHES: Match adjoining surfaces

NON-FERROUS METALS: Unpainted

OVERHEAD SOFFITS: White

PASSAGES: Match adjoining spaces

PICTURE MOLD: Match wall

PIPE RAILS: 26280

PIPES (exposed): Match adjoining surfaces (unless colored for identification)

RADIATORS (cast iron): Match adjoining surfaces

RADIATORS (cast iron behind enclosures): Black

RECESSES: Match adjoining spaces

RECESSES, TELEPHONE (hardpressed fiberboard): Match color of adjoining spaces

FILE NO.		GENERAL COLOR INSTRUCTIONS INTERIOR COLOR SCHEMES	Sheet 2 of 4	
DATE			DWG. NO.	6-50-2K
REVISED	10-15-63	PUBLIC BUILDINGS SERVICE GENERAL SERVICES ADMINISTRATION		STANDARD DETAIL

GENERAL COLOR INSTRUCTIONS

(Continued)

J.H.M.  
 10-11-63  
 "AB"  
 10-11-63  
 "AE"  
 10-11-63  
 "DB"  
 10-11-63  
 "ME"  
 10-11-63  
 "S"

REFRIGERATORS, WALK-IN: Walls white; Ceiling aluminum paint  
 REGISTER FACES: Match adjoining surfaces  
 SCUTTLES: Match ceiling  
 SHELVING (closet): Match walls  
 SKYLIGHT AREA, INCLUDING SASH AND FRAMES: Match ceiling of room  
 STAIRS:

Soffits (cement or plaster): White  
 Soffits (metal): Match door color  
 Ferrous metals: Match door color  
 Wood handrails: Natural finish

\*\*Concrete floors, platforms, treads and risers: 26280  
 SUBDIVIDING OFFICE PARTITIONS: Match color scheme of room  
 TOILET ENCLOSURE PARTITIONS AND DOORS: Match room door color

TRANSOM SASH: Match trim  
 TRAP DOORS IN CEILINGS: Match ceiling  
 VAULT DOORS AND TRIM (inside and outside): Match outside room doors

VAULT VESTIBULE: Match door  
 WAINSCOTS, PAINTED-ON: In stairways, boiler rooms, mechanical equipment rooms, etc., where scheduled: Color of door

WINDOW GRILLES, WIRE MESH PARTITIONS (P.O.): Match doors  
 WINDOW GRILLES, WIRE MESH PARTITIONS: Match walls  
 WORK ROOMS (P.O.):

Counter (workroom side): 23531  
 Lock Boxes (inside workroom): Blank panels, back and inside of lock boxes, wood panels above, all trim: 23531

Observation Units: Match adjoining surfaces  
 Screenline Counter Cabinets (old type with wickets, remodeling or repainting only): Match wainscot

Wainscots, face brick: Unpainted  
 Wainscots, (surfaces other than face brick): Painted wainscot 4'-5 3/8" high to match door color

Walls, at screenline (old type with wickets, remodeling or repainting only):

From top of screenline to floor: Match wainscot  
 From top of screenline to ceiling: Match upper wall

\* Except contact surfaces of operating parts.

\*\* No paint on tread surfaces with non-slip aggregate.

NOTE: If doors are natural finish, items called for as matching door shall match wall.

FILE NO.		GENERAL COLOR INSTRUCTIONS INTERIOR COLOR SCHEMES	Sheet 3 of
DATE			DWG. NO.
REVISED	10-15-63	PUBLIC BUILDINGS SERVICE GENERAL SERVICES ADMINISTRATION	STANDARD DETAIL



		TYPES OF FINISHES					
SPACES	ITEMS	*GLOSS ENAMEL	SEMI-GLOSS ENAMEL	*EGGSHELL	LUSTERLESS	**RUBBED DULL FINISH	
Toilets, Kitchens, Bath Rooms, Steam Rooms, Service Closets, Gear Rooms, and Similar Spaces	Plaster Walls		X				
	Plaster Ceilings		X				
	Wood Work		X				
	Metal Work		X				
	Concrete or Masonry Walls and ceilings		X				
Lookout Galleries & Shafts Acoustic Walls or Ceilings except new factory finished units	All Painted Work				X		
	All Painted Work				X		
All Other Spaces	Plaster Walls				X		
	Plaster Ceilings				X		
	Wood Work		X			*	
	Metal Work		X				
	Concrete or Masonry Walls				X		
	Concrete or Masonry Ceilings				X		
	Painted-on Wainscot and Base		X				
<p>* Items specifically noted or specified.                  ** Grained wood (natural finish which shows grain of wood). Colors of grained wood, and number of coats required, shall be in accordance with approved samples.</p>							
60° SPECULAR GLOSS VALUES							
Gloss Enamel.....70		Eggshell..... 6 to 30					
Semi-gloss Enamel.....30 to 70		Lusterless.....2 to 6					
<p>NOTES:</p> <ol style="list-style-type: none"> <li>Items such as grilles louvers, register faces, fascia plates, and similar unimportant elements of design, shall have the same color as the surface within which they occur.</li> <li>White for ceilings shall be pure and untinted, and shall be carried down to the picture mold, if any; white for other surfaces shall be tinted very slightly as specified to eliminate the appearance of chalkiness.</li> <li>Rooms and spaces for which no color instructions have been given or scheduled shall be painted in the same interior Color Scheme as for spaces used for similar purposes.</li> </ol>							
FILE NO.		GENERAL COLOR INSTRUCTIONS			Sheet 4 of 4		
DATE		INTERIOR COLOR SCHEMES			DWG. NO.	6-50-2K	
REVISED	10-15-63	PUBLIC BUILDINGS SERVICE GENERAL SERVICES ADMINISTRATION			STANDARD DETAIL		

Exhibit No. 5-D

Subject: Housing and Urban Development Building

Date: 1994

Description: Color Chips of Recommended Finish Colors  
[Note: Munsell Color Chips will be inserted here in two original copies of report furnished to General Services Administration]

Source: Munsell System of Color Notation, Macbeth Color, PO Box 230, Newburgh, NY 12551-0230 (1-800-MACBETH)