

APPENDIX NO. 2
ENVIRONMENTAL SURVEY

Asbestos Survey & Hazardous Materials Assessment

July 26, 2002

Dyess AFB
Family Housing,
Phase 3
Abilene, Texas 79606

Asbestos Survey & Hazardous Materials Assessment 011131.063

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EXECUTIVE SUMMARY

Carter & Burgess, Inc. (Carter & Burgess) was retained by the United States Army Corps of Engineers to document the presence of hazardous and regulated materials and to conduct an asbestos survey of 11 types of family housing at Dyess Air Force Base in Abilene, Texas. Due to the difficulty of sampling occupied units, only vacant units were sampled. The housing types sampled therefore only included types 11, 14, 15, 18, 20, and 23. Due to imminent occupancy, a visual survey of housing types 17, 19, 22, and 24 was performed. Housing type 21 was not available for sampling or visual observation due to 100% occupancy of this unit type. Carter & Burgess collected 216 samples (336 samples, when including layers) from various suspect building materials in housing types 11, 14, 15, 18, 20, and 23. Based on the analytical results, Carter & Burgess identified the following asbestos-containing materials:

- **Housing Type 11**

- 12" x 12" Resilient Floor Tile & Associated Mastic (Kitchen)

- Cementitious Fiberboard Panel (Utility Closet)

- **Housing Type 14**

- 12" x 12" Resilient Floor Tile & Associated Mastic (Kitchen)

- Cementitious Fiberboard Panel (Utility Closet)

- **Housing Type 15**

- 12" x 12" Resilient Floor Tile & Associated Mastic (Kitchen)

- Cementitious Fiberboard Panel (Utility Closet)

- **Housing Type 18**

- Interior Storm Window Caulk (Typical Application)

- Cementitious Fiberboard Panel (Utility Closet)

- **Housing Type 20**

12" x 12" Resilient Floor Tile & Associated Mastic (Kitchen)

Cementitious Fiberboard Panel (Utility Closet)

- **Housing Type 23**

12" x 12" Resilient Floor Tile & Associated Mastic (Kitchen)

Cementitious Fiberboard Panel (Utility Closet)

White wall texture and white joint compound in housing types 11, 14, 18, 20, and 23 were found to contain 2% asbestos using PLM analysis. These results were verified by point counting in accordance with the Asbestos NESHAP Revision Final Rule (40 CFR 61.141). According to the point counting laboratory results, the wall texture and joint compound contained <1% asbestos. The EPA, OSHA and TDH consider a material to be "asbestos-containing" only if it contains more than one percent asbestos.

Materials that contain trace amounts of asbestos (less than one percent) are not currently subject to EPA and TDH regulations. These materials, however, may still be subject to OSHA regulations when their disturbance may elevate the concentration of airborne fibers above the eight-hour time weighted average (TWA) permissible exposure limit (PEL) of 0.1 fibers per cubic centimeter of air (f/cc) or the 30-minute short term excursion limit (STEL) of 1.0 f/cc. It should be noted, despite the limits established by OSHA, that no "safe" level of asbestos exposure has been determined.

The interior survey was limited to one side (dwelling unit) of the duplex. The exterior survey included the entire duplex building. The following hazardous and regulated materials were identified in each interior survey area:

- One florescent light fixture was observed in each kitchen. This fixture may have ballasts that contain PCBs. The florescent light tubes may also contain mercury.
- Air-cooled air conditioning systems were observed in each unit. This system consists of an exterior pad-mounted condenser and an interior fan unit located in the

utility closet. These systems were reported to be operable and should be assumed to contain refrigerants.

- One mercury switch thermostat was observed in each unit.

The following hazardous and regulated materials were identified in each exterior survey area:

- One to two pole-mounted transformers were observed within 100 feet of each unit. Until the contents can be verified, the observed transformers should be considered to contain PCBs.
- Treated wood was used for landscaping at various units. The use of the treated wood appeared to be by individual tenant choice, and therefore was not homogenous in use, placement, or extent.

The locations of the above materials can be found on the **Sample Locations** maps in the appendices.

Investigation of lead-based paint was not included in this assessment. According to the Statement of Work (DACA63-02-D-0001/T.O.0008/POO) provided by Client, lead-based paint is assumed to be present and therefore worker protection requirements will be included in specifications for demolition.

Carter & Burgess recommends the following actions (see **Section 3.0: Recommendations** for details):

- Tenants, employees, maintenance personnel, contractors and others who could potentially disturb asbestos during the course of their work activities should be notified of the presence and location of asbestos in accordance with TDH and OSHA regulations, 25 TAC 295.34(b)(2) and 29 CFR 1926.1101, respectively.
- Prior to performing any demolition and/or renovation activities that may disturb asbestos-containing materials, the affected materials should be removed by a properly licensed abatement contractor in accordance with applicable regulations.
- Any asbestos-containing materials remaining in the building should be maintained in good condition until they are removed from the building.

- Perform appropriate analyses to determine asbestos content prior to disturbing any suspect materials that were not included in this survey.
- All materials assumed to be hazardous (florescent light fixtures, refrigerants, mercury switches, PCBs, and treated wood) should be verified and handled in accordance with applicable local, state, and federal regulations.

1.0 INTRODUCTION

1.1 *Scope of Work*

Carter & Burgess, Inc. (Carter & Burgess) was retained by the United States Army Corps of Engineers to conduct an asbestos survey of 11 types of family housing at Dyess Air Force Base in Abilene, Texas. Due to the difficulty of sampling occupied units, only vacant units were sampled. The housing types sampled therefore only included types 11, 14, 15, 18, 20, and 23. Due to imminent occupancy, a visual survey of housing types 17, 19, 22, and 24 was performed. Housing type 21 was not available for sampling or visual observation due to 100% occupancy of this unit type. This survey was intended to identify reasonably observable and accessible materials that were suspected of containing asbestos and to provide analytical data from samples collected during the survey. This survey was also intended to document the presence of hazardous and regulated materials including florescent light tubes/ballasts, refrigerants, mercury switches, PCBs, and treated wood.

1.2 *Limitations*

The accuracy of this survey is limited to reasonably accessible and observable materials present on the specific day of physical inspection. All other materials or sources of asbestos are excluded from responsibility of detection by representatives of Carter & Burgess. Carter & Burgess does not warrant or guarantee the accuracy of data generated by others, including but not limited to vendors and subcontractors, or certify the property as completely free of other environmentally detrimental conditions.

Carter & Burgess prepared this report for the exclusive use and benefit of Dyess Air Force Base and the United States Army Corps of Engineers. Any use by entities other than Dyess Air Force Base and the United States Army Corps of Engineers is prohibited without prior written permission from Carter & Burgess.

1.3 *Regulatory Summary*

Brief summaries of asbestos regulations promulgated by the U.S. Environmental Protection Agency (EPA) and the Texas Department of Health (TDH) are provided below. The summaries primarily address demolition related issues and are intended as clarification for the reader. They should not be considered comprehensive nor should they be considered a replacement for the complete codified regulations.

State and federal regulations require a survey to be performed prior to initiating demolition or renovation activities. Samples must be collected from suspect components and analyzed using polarized light microscopy (PLM). Friable materials may be reanalyzed using an objective method called point counting. When the results obtained from point counting and the standard PLM method differ, the point counting result shall take precedent. Materials determined to contain greater than one percent (>1%) asbestos exceed the regulatory threshold and are considered an asbestos-containing material. When the asbestos content of a material is not known, the material should be assumed to contain asbestos until such time as the asbestos content is verified through analytical testing.

Key concepts of the survey are determining not only the asbestos content of a material, but also its relative condition and friability. In the case of non-friable materials, these factors can determine whether a material would be considered regulated and possibly subject to removal in a demolition situation.

When renovating a building or intentionally disturbing building materials, the asbestos materials that will likely be disturbed must first be removed using proper techniques and trained/licensed personnel. Precautions must be implemented to protect not only the workers removing the material but also to protect people and other areas of the building that are not otherwise impacted by the work being conducted. Exceptions to this requirement are rarely encountered and only permitted by the governing regulatory agencies in extreme cases.

There are limited circumstances in federal and state regulations that allow asbestos materials to remain in-place during total demolition of a structure. They do not apply to removing or "gutting" activities, which are considered renovation activities. Circumstances that allow asbestos to remain during total building demolition are essentially two-fold; 1) a building is declared to be structurally unsound and in danger of imminent collapse, or 2) regulated materials are removed, leaving only certain non-friable materials in place. A more detailed discussion of each option follows.

According to NESHAP [40CFR61.145(a)(3)], a building may be demolished with friable and non-friable asbestos materials in-place "if the facility is being demolished under an order of a State or local government agency, issued because the facility is structurally unsound and in danger of imminent collapse." TAHPR similarly states in 25 TAC 295.61(i), "The judgment that a structure is in danger of imminent collapse or that it is unsafe for anyone to enter shall

be made by a professional engineer, registered architect, or government official” and as such the building would no longer meet the requirements of a public building [25 TAC 295.32(74)(F)]. The result of this determination means that all materials containing asbestos, regardless of the amount of asbestos or a material’s friability, may be left in-place during demolition. However, this situation requires the use of wet demolition techniques and proper disposal of all the resulting debris as asbestos waste. This option typically applies to dilapidated structures that have been condemned for structural reason where the building is on the verge of collapsing.

A building may also be demolished with asbestos remaining in-place without being structurally unsound under the following conditions. All materials that are friable or may become friable during demolition must be removed prior to initiating demolition activities [40 CFR 61.145(a)(1) and 25 TAC 295.34(a)]. These materials are referred to as regulated asbestos-containing materials (RACM). Materials that may remain in-place include gaskets, packings, resilient floor coverings, and asphalt roofing materials that are not friable and are not in poor condition (Category I Non-Friable ACM), as well as other non-friable materials (Category II Non-Friable ACM) that do not have a high probability of becoming or have not already become crumbled, pulverized, or reduced to powder by forces expected to act on the material in the course of demolition operations.

1.4 Terminology

The following terms are presented for clarification and may be referenced throughout the report:

<u>ACM</u>	- Asbestos-Containing Material.
<u>AHERA</u>	- The Asbestos Hazard Emergency Response Act (40 CFR 763), promulgated by the U.S. Environmental Protection Agency.
<u>Asbestos</u>	- Defined by OSHA to include chrysotile, amosite, crocidolite, tremolite, actinolite, anthophyllite, and any of these minerals that have been chemically treated and/or altered. For purposes of the OSHA standard, PACM is also considered to be asbestos.

<u>Asbestos-Containing Material</u>	- Defined by TDH as materials or products that contain more than one percent of any kind or combination of asbestos.
<u>Category I Non-Friable ACM</u>	- Defined by NESHAP as packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than one percent asbestos.
<u>Category II Non-Friable ACM</u>	- Defined by NESHAP as any material, excluding Category I Non-Friable ACM, containing more than one percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
<u>Demolition</u>	- The wrecking or taking out of any building component, system, finish, or assembly of a facility together with any related handling operations.
<u>EPA</u>	- U.S. Environmental Protection Agency.
<u>Friable</u>	- Defined by TDH as a material that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
<u>Miscellaneous Material</u>	- Defined by AHERA as a material on structural components, structural members or fixtures, such as floor and ceiling tiles, and does not include surfacing material or thermal system insulation.
<u>NESHAP</u>	- The National Emission Standard for Hazardous Air Pollutants (40 CFR 61) was promulgated by the U.S. Environmental Protection Agency.
<u>Non-Friable</u>	- A material that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
<u>OMP</u>	- Operations & Maintenance Plan.
<u>Operations & Maintenance Plan</u>	- Document intended to provide procedures and practices for long term management of asbestos-containing materials. This document includes

procedures for handling asbestos materials, personnel training, and worker/ tenant notification.

OSHA

- U.S. Department of Labor, Occupational Safety and Health Administration, promulgated worker protection standards as cited in 29 CFR 1926.1101.

PACM

- Presumed Asbestos-Containing Material (i.e., materials which cannot be accessed or otherwise sampled).

PLM

- Polarized Light Microscopy.

Point Counting

- An analytical method used to obtain objective analytical results for certain materials with <10% asbestos as determined by PLM. Analytical data derived from this method supercedes PLM data.

RACM

- Regulated Asbestos-Containing Material.

Regulated Asbestos-

Containing Material

- Defined by NESHAP as (a) friable ACM, (b) Category I Non-Friable ACM that has become friable, (c) Category I Non-Friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II Non-Friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by forces expected to act on the material in the course of demolition or renovation operations.

Renovation

- Defined by TDH as additions to or alterations for purposes of restoration by removal, repairing, and rebuilding.

Surfacing Material

- Defined by AHERA as a material that is sprayed-on, troweled-on, or otherwise applied to surfaces such as acoustical plaster on ceilings and fireproofing material that is applied to structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes.

<u>TAHPR</u>	- Texas Asbestos Health Protection Rules (25 TAC 295.31–295.73) codified by the Texas Department of Health.
<u>TDH</u>	- Texas Department of Health.
<u>Thermal System Insulation</u>	- Defined by AHERA as a material applied to pipes, fittings, boilers, breechings, tanks, ducts, or other structural components to prevent heat loss or gain, or water condensation, or for other purposes.
<u>TSI</u>	- Thermal System Insulation.

2.0 SURVEY FINDINGS

2.1 Findings of Previous Asbestos Surveys

No previous asbestos survey documentation was provided to Carter & Burgess for inclusion in this report.

2.2 Findings of This Investigation

Samples were collected on July 11 & 12, 2002 by Darius D. Parker (TDH Asbestos Consultant License #10-5074) of Carter & Burgess. The subject housing units were unoccupied at the time of inspection. The survey was performed in accordance with the Texas Asbestos Health Protection Rules (TAHPR), 25 TAC 295.34(c), therefore, no less than three samples for each homogeneous material were collected.

Materials observed and sampled during the site visit included, but were not limited to resilient floor tiles, covebase, exterior soffit panels, roofing felt, roof shingles, pipe insulation and covering, cementitious fiberboard, wall texture, joint compound, drywall material, ceramic wall tile with associated thin set mortar & grout, ceramic floor tile with associated grout & mortar, caulk, and flooring mastic. Materials observed but not suspected of containing asbestos were not sampled. The non-sampled materials included fiberglass insulation, metal products, glass materials, plastic products, and wood materials (see **Section 1.2: Limitations** for additional information). A total of 216 samples (336 samples, when including layers) were collected during this investigation.

White paint wall texture and white joint compound in housing types 11, 14, 18, 20, and 23 were found to contain 2% asbestos using PLM analysis. These results were verified by point counting in accordance with the Asbestos NESHAP Revision Final Rule (40 CFR 61.141). According to point count analysis, the wall texture and joint compound contained <1% asbestos. The EPA, OSHA and TDH consider a material to be "asbestos-containing" only if it contains more than one percent asbestos.

Materials that contain trace amounts of asbestos (less than one percent) are not currently subject to EPA and TDH regulations. These materials, however, may still be subject to OSHA regulations when their disturbance may elevate the concentration of airborne fibers above the eight-hour time weighted average (TWA) permissible exposure limit (PEL) of 0.1 fibers per cubic centimeter of air (f/cc) or the 30-minute short term excursion limit (STEL) of 1.0 f/cc. It should be noted, despite the limits established by OSHA, that no "safe" level of asbestos exposure has been determined.

The interior survey was limited to one side (dwelling unit) of the duplex. The exterior survey included the entire duplex building. The following hazardous and regulated materials were identified in each interior survey area:

- One florescent light fixture was observed in each kitchen. This fixture may have ballasts that contain PCBs. The florescent light tubes may also contain mercury.
- Air-cooled air conditioning systems were observed in each unit. This system consists of an exterior pad-mounted condenser and an interior fan unit located in the utility closet. These systems were reported to be operable and should be assumed to contain refrigerants.
- One mercury switch thermostat was observed in each unit.

The following hazardous and regulated materials were identified in each exterior survey area:

- One to two pole-mounted transformers were observed within 100 feet of each unit. Until the contents can be verified, the observed transformers should be considered to contain PCBs.

- Treated wood was used for landscaping at various units. The use of the treated wood appeared to be by individual tenant choice, and therefore was not homogenous in use, placement, or extent.

The locations of the above materials can be found on the **Sample Locations** drawings in the appendices.

Investigation of lead-based paint was not included in this assessment. According to the Statement of Work (DACA63-02-D-0001/T.O.0008/POO) provided by Client, lead-based paint is assumed to be present and therefore worker protection requirements will be included in specifications for demolition.

2.2.1 Housing Type 11

Housing type 11 was viewed at 102 Oklahoma. A total of 33 bulk samples were collected at this location. **Appendix 1: Housing Type 11** includes drawings that show the sample collection locations, photographs reflecting the location of positive results, a summary of the sampling data, and the analytical results. Based on the analytical results, the following asbestos-containing materials were identified in the survey area:

- Two layers each of **White with Black & Brown Flecks 12" x 12" Resilient Floor Tile and Associated Mastic** were found in the kitchen area. The resilient floor tiles, a Category I non-friable material, and associated mastic, a Category II non-friable material, were observed to be in good condition. The bottom layer of tile and mastic was reported to contain 5-7% and 10-15% asbestos, respectively. Approximately 85 square feet of each of these materials was estimated to be in the survey area.
- **White Paint Wall Texture** was found on walls throughout the unit. This material was observed to be in good condition and was reported to contain 2% asbestos (<1% by point count analysis). In its present condition, this material would not be considered friable. However, if this material is disturbed, OSHA regulations may required the use of engineering controls to protect workers from exposure to airborne asbestos above the permissible exposure limit. Approximately 1700 square feet of this material was estimated to be in the survey area.
- **White Joint Compound** was found on walls throughout the unit. This Category II non-friable material was observed to be in good condition and was reported to

contain 2% asbestos (<1% asbestos by point count analysis). In its present condition, this material would not be considered friable. However, if this material is disturbed, OSHA regulations may required the use of engineering controls to protect workers from exposure to airborne asbestos above the permissible exposure limit. Approximately 1700 square feet of this material was estimated to be in the survey area.

- One **Gray Cementitious Fiberboard Panel** was found in the utility closet. This Category II non-friable material was observed to be in good condition and was reported to contain 20% asbestos. Approximately 10 square feet of this material was estimated to be in the survey area.

2.2.2 Housing Type 14

Housing type 14 was viewed at 103 Oklahoma. A total of 33 bulk samples were collected in this area. **Appendix 2: Housing Type 14** includes drawings that show the sample collection locations, photographs reflecting the location of positive results, a summary of the sampling data, and the analytical results. Based on the analytical results, the following asbestos-containing materials were identified in the survey area:

- **White Paint Wall Texture** was found on walls throughout the unit. This Category II non-friable material was observed to be in good condition and was reported to contain 2% asbestos (<1% asbestos by point count analysis). In its present condition, this material would not be considered friable. However, if this material is disturbed, OSHA regulations may required the use of engineering controls to protect workers from exposure to airborne asbestos above the permissible exposure limit. Approximately 1700 square feet of this material was estimated to be in the survey area.
- **White Joint Compound** was found on walls throughout the unit. This Category II non-friable material was observed to be in good condition and was reported to contain 2% asbestos (<1% asbestos by point count analysis). In its present condition, this material would not be considered friable. However, if this material is disturbed, OSHA regulations may required the use of engineering controls to protect workers from exposure to airborne asbestos above the permissible exposure limit. Approximately 1700 square feet of this material was estimated to be in the survey area.

- **White with Black & Brown Flecks & Streaks 12" x 12" Resilient Floor Tile and Associated Mastic** was found in the kitchen area. The resilient floor tiles, a Category I non-friable material, and associated mastic, a Category II non-friable material, were observed to be in good condition. The mastic was reported to contain 10-15% asbestos. The resilient floor tile was not reported to contain asbestos. However, because the two materials cannot be completely separated, the floor tile is assumed to contain asbestos. Approximately 85 square feet of each of these materials was estimated to be in the survey area.
- One **Gray Cementitious Fiberboard Panel** was found in the utility closet. This Category II non-friable material was observed to be in good condition and was reported to contain 15% asbestos. Approximately 10 square feet of this material was estimated to be in the survey area.

2.2.3 Housing Type 15

Housing type 15 was viewed at 109 Oklahoma. A total of 42 bulk samples were collected in this area. **Appendix 3: Housing Type 15** includes drawings that show the sample collection locations, photographs reflecting the location of positive results, a summary of the sampling data, and the analytical results. Based on the analytical results, the following asbestos-containing materials were identified in the survey area:

- **White with Black & Brown Flecks & Streaks 12" x 12" Resilient Floor Tile and Associated Mastic** was found in the kitchen area. The resilient floor tiles, a Category I non-friable material, and associated mastic, a Category II non-friable material, were observed to be in good condition. The mastic was reported to contain 10-15% asbestos. The resilient floor tile was not reported to contain asbestos. However, because the two materials cannot be completely separated, the floor tile is assumed to contain asbestos. Approximately 85 square feet of each of these materials was estimated to be in the survey area.
- One **Gray Cementitious Fiberboard Panel** was found in the utility closet. This Category II non-friable material was observed to be in good condition and was reported to contain 15% asbestos. Approximately 10 square feet of this material was estimated to be in the survey area.

2.2.4 Housing Type 18

Housing type 18 was viewed at 111 New York. A total of 39 bulk samples were collected in this area. **Appendix 4: Housing Type 18** includes drawings that show the sample collection locations, photographs reflecting the location of positive results, a summary of the sampling data, and the analytical results. Based on the analytical results, the following asbestos-containing materials were identified in the survey area:

- **White Paint Wall Texture** was found on walls throughout the unit. This Category II non-friable material was observed to be in good condition and was reported to contain 2% asbestos (<1% asbestos by point count analysis). In its present condition, this material would not be considered friable. However, if this material is disturbed, OSHA regulations may required the use of engineering controls to protect workers from exposure to airborne asbestos above the permissible exposure limit. Approximately 1700 square feet of this material was estimated to be in the survey area.
- **White Joint Compound** was found on walls throughout the unit. This Category II non-friable material was observed to be in good condition and was reported to contain 2% asbestos (<1% asbestos by point count analysis). In its present condition, this material would not be considered friable. However, if this material is disturbed, OSHA regulations may required the use of engineering controls to protect workers from exposure to airborne asbestos above the permissible exposure limit. Approximately 1700 square feet of this material was estimated to be in the survey area.
- **Gray Caulk** was found on the perimeter of the windows. This Category II non-friable material was observed to be in good condition and was reported to contain 8% asbestos. Approximately 20 linear feet of this material was estimated to be in the survey area.
- One **Gray Cementitious Fiberboard Panel** was found in the utility closet. This Category II non-friable material was observed to be in good condition and was reported to contain 45% asbestos. Approximately 10 square feet of this material was estimated to be in the survey area.

2.2.5 Housing Type 20

Housing type 20 was viewed at 120 Oklahoma. A total of 36 bulk samples were collected in this area. **Appendix 5: Housing Type 20** includes drawings that show the sample collection locations, photographs reflecting the location of positive results, a summary of the sampling data, and the analytical results. Based on the analytical results, the following asbestos-containing materials were identified in the survey area:

- **White Paint Wall Texture** was found on walls throughout the unit. This Category II non-friable material was observed to be in good condition and was reported to contain 2% asbestos (<1% asbestos by point count analysis). In its present condition, this material would not be considered friable. However, if this material is disturbed, OSHA regulations may required the use of engineering controls to protect workers from exposure to airborne asbestos above the permissible exposure limit. Approximately 1700 square feet of this material was estimated to be in the survey area.
- **White Joint Compound** was found on walls throughout the unit. This Category II non-friable material was observed to be in good condition and was reported to contain 2% asbestos (<1% asbestos by point count analysis). In its present condition, this material would not be considered friable. However, if this material is disturbed, OSHA regulations may required the use of engineering controls to protect workers from exposure to airborne asbestos above the permissible exposure limit. Approximately 1700 square feet of this material was estimated to be in the survey area.
- **White with Black & Brown Flecks & Streaks 12" x 12" Resilient Floor Tile and Associated Mastic** was found in the kitchen area. The resilient floor tiles, a Category I non-friable material, and associated mastic, a Category II non-friable material, were observed to be in good condition. The mastic was reported to contain 10-15% asbestos. The resilient floor tile was not reported to contain asbestos. However, because the two materials cannot be completely separated, the floor tile is assumed to contain asbestos. Approximately 85 square feet of each of these materials was estimated to be in the survey area.
- One **Gray Cementitious Fiberboard Panel** was found in the utility closet. This Category II non-friable material was observed to be in good condition and was reported to contain 20% asbestos. Approximately 10 square feet of this material was estimated to be in the survey area.

2.2.6 Housing Type 23

Housing type 23 was viewed at 103 New York. A total of 33 bulk samples were collected in this area. **Appendix 6: Housing Type 23** includes drawings that show the sample collection locations, photographs reflecting the location of positive results, a summary of the sampling data, and the analytical results. Based on the analytical results, the following asbestos-containing materials were identified in the survey area:

- **White with Black & Brown Flecks & Streaks 12" x 12" Resilient Floor Tile and Associated Mastic** was found in the kitchen area. The resilient floor tiles, a Category I non-friable material, and associated mastic, a Category II non-friable material, were observed to be in good condition. The mastic was reported to contain 10% asbestos. The resilient floor tile was not reported to contain asbestos. However, because the two materials cannot be completely separated, the floor tile is assumed to contain asbestos. Approximately 85 square feet of each of these materials was estimated to be in the survey area.
- One **Gray Cementitious Fiberboard Panel** was found in the utility closet. This Category II non-friable material was observed to be in good condition and was reported to contain 20% asbestos. Approximately 10 square feet of this material was estimated to be in the survey area.
- **White Paint Wall Texture** was found on walls throughout the unit. This Category II non-friable material was observed to be in good condition and was reported to contain 2% asbestos (<1% asbestos by point count analysis). In its present condition, this material would not be considered friable. However, if this material is disturbed, OSHA regulations may required the use of engineering controls to protect workers from exposure to airborne asbestos above the permissible exposure limit. Approximately 1700 square feet of this material was estimated to be in the survey area.
- **White Joint Compound** was found on walls throughout the unit. This Category II non-friable material was observed to be in good condition and was reported to contain 2% asbestos (<1% asbestos by point count analysis). In its present condition, this material would not be considered friable. However, if this material is disturbed, OSHA regulations may required the use of engineering controls to protect workers from exposure to airborne asbestos above the permissible exposure limit.

Approximately 1700 square feet of this material was estimated to be in the survey area.

2.2.7 Visually Surveyed Units

Four other housing types were viewed but were not sampled due to imminent occupancy.

The viewed units included the following:

- 102 Maryland, Housing Type 17
- 130 Virginia, Housing Type 19
- 105 Kansas, Housing Type 22
- 109 Florida, Housing Type 24

The materials used for construction at these housing types appeared to be homogenous and similar to the building materials used at the sampled units. Only two exceptions were noted:

- Suspect **White with Tan Flecks 12" x 12" Resilient Floor Tile and Associated Mastic** was present in the kitchen area at 102 Maryland. The resilient floor tiles, a Category I non-friable material, and associated mastic, a Category II non-friable material, were observed to be in good condition. Although no samples were taken, these materials are considered to contain asbestos. Approximately 85 square feet of each of these materials was estimated to be in the survey area.
- Suspect **Tan with Brown Streaks 12" x 12" Resilient Floor Tile and Associated Mastic** was present in the kitchen area at 105 Kansas. The resilient floor tiles, a Category I non-friable material, and associated mastic, a Category II non-friable material, were observed to be in good condition. Although no samples were taken, these materials are considered to contain asbestos. Approximately 85 square feet of each of these materials was estimated to be in the survey area.

2.3 Analytical Methodology

Samples were delivered to EcoSystems Environmental, Inc. (ESEI) of Carrollton, Texas while maintaining custody records. ESEI is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) and licensed as an Asbestos Laboratory (#30-0117) by the Texas Department of Health (TDH).

Analysis of bulk material samples was completed using polarized light microscopy (PLM) in accordance with EPA Method 600/R-93/116 and methodology cited in the Asbestos Hazard Emergency Response Act. Samples were mounted on slides and analyzed for the presence of asbestiform fibers (amosite, chrysotile, crocidolite, actinolite, tremolite, and anthophyllite), as well as other fibrous and non-fibrous non-asbestos constituents. Common fibrous non-asbestos materials include glass, mineral wool, cellulose, paper, and synthetic materials. Common non-fibrous non-asbestos materials include binders, mica, quartz, and clays. During this procedure, the microscopist examines the sample and visually estimates the percentage of each constituent relative to the total sample.

The National Emission Standards for Hazardous Air Pollutants Asbestos NESHAP Revision Final Rule states that regulated asbestos-containing materials (as defined in 40 CFR 61.141) containing less than 10% asbestos (including the samples that contain a trace or less than 1% asbestos which are considered by the EPA as asbestos-containing materials if analyzed by PLM) may be verified by point counting. If a result obtained by point counting is different from a result obtained by visual estimation, the point count result will supercede the PLM results.

Point counting for the quantitation of asbestos is conducted in accordance with the procedure outlined in the United States Environmental Protection Agency: 40 Code of Federal Regulations Chapter I (01/01/87 Edition) Part 763, Sub-Part F, Appendix A. An ocular reticule (cross hair) is used to visually superimpose a point or points on the microscope field of view. The number of points positioned directly above each kind of particle or fiber of interest is recorded. Only points directly over asbestos fibers or non-asbestos material are scored. Point counting provides a quantitative visual determination of the area percent of asbestos.

3.0 RECOMMENDATIONS

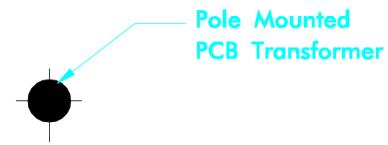
Based on analytical data and site observations, Carter & Burgess recommends the following actions:

- Employees, maintenance personnel, contractors and others who could potentially disturb asbestos during the course of their work activities should be notified of the presence and location of asbestos in accordance with TDH and OSHA regulations, 25 TAC 295.34(b)(2) and 29 CFR 1926.1101, respectively.

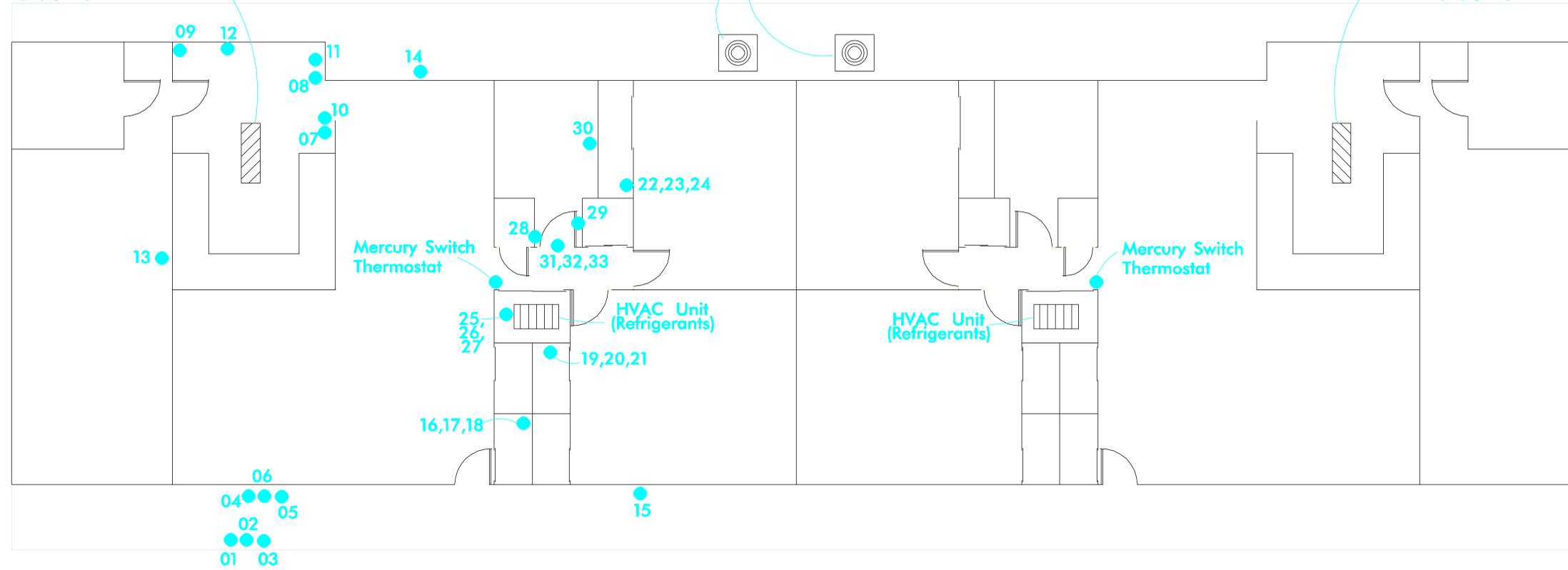
- Any asbestos-containing materials remaining in the building should be maintained in good condition (do not disturb or damage the asbestos materials) until a licensed asbestos abatement contractor removes them from the building. An Asbestos operations and maintenance plan (OMP) is a key element to assist with managing asbestos materials if in-house personnel will be used in the management process. If in-house personnel will be used to maintain the materials and respond to fiber releases, then proper procedures should be followed. Only properly licensed/registered workers may handle asbestos materials.
- Prior to performing any demolition and/or renovation activities that may disturb asbestos-containing materials, the affected materials should be removed by a properly licensed abatement contractor in accordance with applicable regulations. TDH regulations require asbestos abatement specifications to be prepared by a licensed asbestos consultant and abatement monitoring to be conducted by a licensed asbestos consultant agency.
- Perform appropriate analyses to determine asbestos content prior to disturbing any suspect materials that were not included in this survey.
- All materials assumed to be hazardous (florescent light fixtures, refrigerants, mercury switches, PCBs, and treated wood) should be verified and handled in accordance with applicable local, state, and federal regulations.

APPENDIX 1

HOUSING TYPE 11



1'x 4' Florescent Light
Tube/Ballast &
Possible PCB
Transformer



LEGEND

- 61 Sample Number and Location
- Roof Overhang
- No Treated Wood Was Present



REVISIONS	
PROJECT NO.	07/13/06.3.0008
DRAWN BY	CDH
APPROVED BY	DDP
DATE	07/20/02

SAMPLE LOCATIONS
102 Oklahoma, Housing Type 11
Dyess Air Force Base
Abilene, Texas

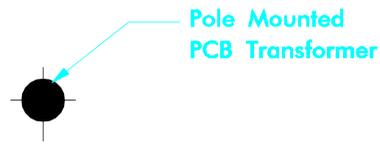


SHEET
 1
 OF 5 SHEETS

General Material Type Material Description Sample Location(s)	ACM Photo ID	Sample Number	% Asbestos/ Type	Material Type	Friable	Condition	Damage Type	Accessibility	Assessment Code	Min. Response	Estimated Extent
Roof Felt Black Roof Above Front Porch Roof Above Front Porch Roof Above Front Porch		11-01 11-02 11-03	0% 0% 0%								
Exterior Soffit Panels Off-White Front Porch Ceiling Front Porch Ceiling Front Porch Ceiling		11-04 11-05 11-06	0% 0% 0%								
12"x12" Resilient Floor Tile White with Black & Brown Flecks, Layer 1 Kitchen Kitchen Kitchen		11-07A 11-08A 11-09A	0% 0% 0%								
Flooring Mastic Yellow, Associate with Above Kitchen Kitchen Kitchen		11-07B 11-08B 11-09B	0% 0% 0%								
12"x12" Resilient Floor Tile White with Black & Brown Flecks, Layer 2 Kitchen Kitchen Kitchen	1	11-07C 11-08C 11-09C	5% Chrysotile 7% Chrysotile 7% Chrysotile	M	N Cat 1	G	--	L	5	3	85 SF
Flooring Mastic Black, Associate with Above Kitchen Kitchen Kitchen	1	11-07D 11-08D 11-09D	10% Chrysotile 15% Chrysotile 15% Chrysotile	M	N Cat 2	G	--	L	5	3	85 SF
Covebase Brown Kitchen Kitchen Kitchen		11-10A 11-11A 11-12A	0% 0% 0%								
Covebase Mastic Brown Kitchen Kitchen Kitchen		11-10B 11-11B 11-12B	0% 0% 0%								
Caulk Brown Exterior of Carport/Kitchen Window Exterior of Den Window Exterior of Front Bedroom Window		11-13 11-14 11-15	0% 0% 0%								
Wall Texture White Front Entrance Hall Closet Front Bedroom Closet Back Bedroom Closet	2	11-16 11-19 11-22	*<1% Chrysotile *<1% Chrysotile *<1% Chrysotile								1700 SF
Joint Compound White Front Entrance Hall Closet Front Bedroom Closet Back Bedroom Closet	2	11-17 11-20 11-23	*<1% Chrysotile *<1% Chrysotile *<1% Chrysotile								1700 SF
Wallboard White Drywall Material Front Entrance Hall Closet Front Bedroom Closet Back Bedroom Closet		11-18 11-21 11-24	0% 0% 0%								
Fiberboard Panels Gray, Cementitious Utility Closet Utility Closet Utility Closet	3	11-25 11-26 11-27	20% Chrysotile Positive Stop Positive Stop	M	N Cat 2	G	--	M	5	3	10 SF
Ceramic Tile 2" x 2" White Wall Tile Bathroom Bathroom Bathroom		11-28A 11-29A 11-30A	0% 0% 0%								

APPENDIX 2

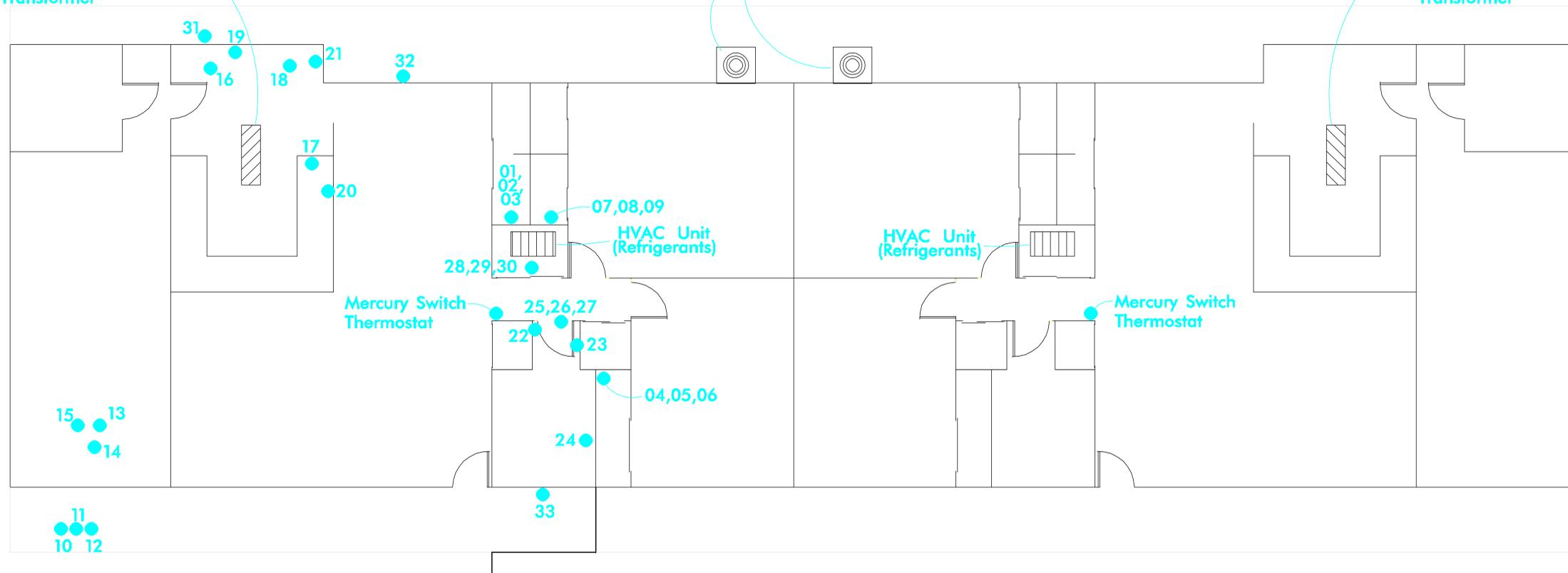
HOUSING TYPE 14



1'x 4' Florescent Light Tube/Ballast & Possible PCB Transformer

Condenser Unit (Refrigerants)

1'x 4' Florescent Light Tube/Ballast & Possible PCB Transformer



LEGEND

- 61 Sample Number and Location
- Roof Overhang
- Treated Wood

REVISIONS

PROJECT NO.	DRAWN BY	APPROVED BY	DATE
01113106.3.0008	CDH	DDP	07/20/02

SAMPLE LOCATIONS
103 Oklahoma, Housing Type 14
Dyess Air Force Base
Ablene, Texas

Carter=Burgess

SHEET
 2
 OF 5 SHEETS

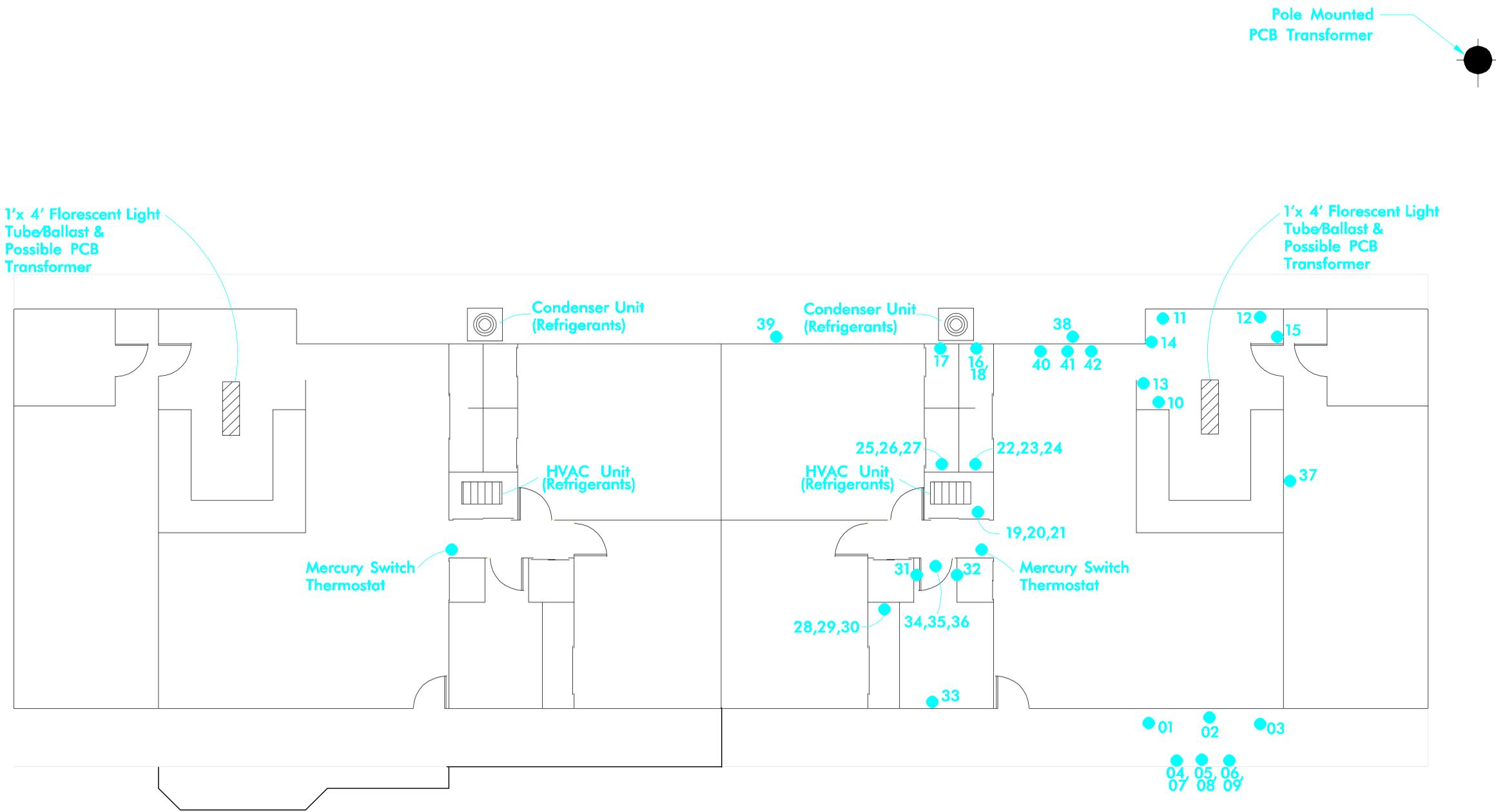
Project Name: 103 OK, Housing Type 14, Dyess AFB Family Housing

Project No: 011131.063

General Material Type Material Description Sample Location(s)	ACM Photo ID	Sample Number	% Asbestos/ Type	Material Type	Friable	Condition	Damage Type	Accessibility	Assessment Code	Min. Response	Estimated Extent
Wall Texture White Den Closet Back Bedroom Closet Front Bedroom Closet	4	14-01 14-04 14-07	*<1% Chrysotile *<1% Chrysotile *<1% Chrysotile								1700 SF
Joint Compound White Den Closet Back Bedroom Closet Front Bedroom Closet	4	14-02 14-05 14-08	*<1% Chrysotile *<1% Chrysotile *<1% Chrysotile								1700 SF
Wallboard White Drywall Material Den Closet Back Bedroom Closet Front Bedroom Closet		14-03 14-06 14-09	0% 0% 0%								
Roof Felt Black Carport Roof Carport Roof Carport Roof		14-10 14-11 14-12	0% 0% 0%								
Exterior Soffit Panels Off-White Carport Ceiling Carport Ceiling Carport Ceiling		14-13 14-14 14-15	0% 0% 0%								
12"x12" Resilient Floor Tile White with Black & Brown Flecks & Streaks Kitchen Kitchen Kitchen		14-16A 14-17A 14-18A	0% 0% 0%								
Flooring Mastic Black Kitchen Kitchen Kitchen	5	14-16B 14-17B 14-18B	10% Chrysotile 10% Chrysotile 15% Chrysotile	M	N Cat 2	G	--	L	5	3	85 SF
Covebase Brown Kitchen Kitchen Kitchen		14-19A 14-20A 14-21A	0% 0% 0%								
Covebase Mastic Brown Kitchen Kitchen Kitchen		14-19B 14-20B 14-21B	0% 0% 0%								
Ceramic Tile White 2" x 2" Wall Tile Bathroom Bathroom Bathroom		14-22A 14-23A 14-24A	0% 0% 0%								
Thin Set on Ceramic Tile Tan Associated with Above Bathroom Bathroom Bathroom		14-22B 14-23B 14-24B	0% 0% 0%								
Ceramic Tile Grout Gray Associated with Above Bathroom Bathroom Bathroom		14-22C 14-23C 14-24C	0% 0% 0%								
Ceramic Tile 1" x 1" Cream Floor Tile Bathroom Bathroom Bathroom		14-25A 14-26A 14-27A	0% 0% 0%								
Ceramic Tile Grout Gray Associated with Above Bathroom Bathroom Bathroom		14-25B 14-26B 14-27B	0% 0% 0%								

APPENDIX 3

HOUSING TYPE 15

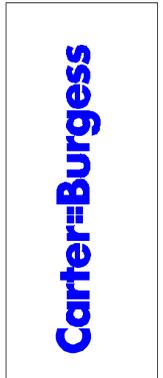


LEGEND

- 61 Sample Number and Location
- Roof Overhang
- Treated Wood

REVISIONS			
PROJECT NO.	0113106.3.0008	CDH	
DRAWN BY		DJP	
APPROVED BY			07/202
DATE			

SAMPLE LOCATIONS
 109 Oklahoma, Housing Type 15r
 Dyess Air Force Base
 Abilene, Texas



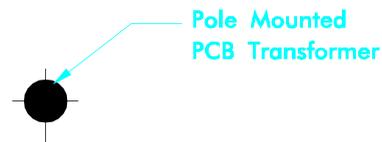
Project Name: 109 OK, Housing Type 15, Dyess AFB Family Housing

Project No: 011131.063

General Material Type Material Description Sample Location(s)	ACM Photo ID	Sample Number	% Asbestos/ Type	Material Type	Friable	Condition	Damage Type	Accessibility	Assessment Code	Min. Response	Estimated Extent
Exterior Soffit Panels Off-White Front Porch Ceiling Front Porch Ceiling Front Porch Ceiling		15-01 15-02 15-03	0% 0% 0%								
Roof Felt Black Roof of Front Porch Roof of Front Porch Roof of Front Porch		15-04 15-05 15-06	0% 0% 0%								
Asphalt Roof Shingles Black Roof of Front Porch Roof of Front Porch Roof of Front Porch		15-07 15-08 15-09	0% 0% 0%								
12"x12" Resilient Floor Tile White with Black & Brown Flecks & Streaks Kitchen Kitchen Kitchen		15-10A 15-11A 15-12A	0% 0% 0%								
Flooring Mastic Black Associated with Above Kitchen Kitchen Kitchen	7	15-10B 15-11B 15-12B	15% Chrysotile 15% Chrysotile 20% Chrysotile	M	N Cat 2	G	--	L	5	3	85 SF
Covebase Brown Kitchen Kitchen Kitchen		15-13A 15-14A 15-15A	0% 0% 0%								
Covebase Mastic Brown Associated with Above Kitchen Kitchen Kitchen		15-13B 15-14B 15-15B	0% 0% 0%								
Pipe Insulation Yellow Den Closet Back Bedroom Closet Den Closet		15-16A 15-17A 15-18A	0% 0% 0%								
Pipe Insulation Cover Den Closet Back Bedroom Closet Den Closet		15-16B 15-17B 15-18B	0% 0% 0%								
Fiberboard Panels Gray, Cementitious Utility Closet Utility Closet Utility Closet	8	15-19 15-20 15-21	15% Chrysotile Positive Stop Positive Stop	M	N Cat 2	G	--	M	5	3	10 SF
Wall Texture White Den Closet Back Bedroom Closet Front Bedroom Closet		15-22 15-25 15-28	0% 0% 0%								
Joint Compound White Den Closet Back Bedroom Closet Front Bedroom Closet		15-23 15-26 15-29	0% 0% 0%								
Wallboard White Drywall Material Den Closet Back Bedroom Closet Front Bedroom Closet		15-24 15-27 15-30	0% 0% 0%								
Ceramic Tile White 2" x 2" Wall Tile Bathroom Bathroom Bathroom		15-31A 15-32A 15-33A	0% 0% 0%								

General Material Type Material Description Sample Location(s)	ACM Photo ID	Sample Number	% Asbestos/ Type	Material Type	Friable	Condition	Damage Type	Accessibility	Assessment Code	Min. Response	Estimated Extent
Thin Set on Ceramic Tile Tan Associated with Above Bathroom Bathroom Bathroom		15-31B 15-32B 15-33B	0% 0% 0%								
Ceramic Tile Grout Gray Associated with Above Bathroom Bathroom Bathroom		15-31C 15-32C 15-33C	0% 0% 0%								
Ceramic Tile 1" x 1" Cream Floor Tile Bathroom Bathroom Bathroom		15-34A 15-35A 15-36A	0% 0% 0%								
Ceramic Tile Grout Gray Associated with Above Bathroom Bathroom Bathroom		15-34B 15-35B 15-36B	0% 0% 0%								
Mortar Dark Gray Associated with Above Bathroom Bathroom Bathroom		15-34C 15-35C 15-36C	0% 0% 0%								
Caulk Brown Exterior of Kitchen/Carport Window Exterior of Den Window Exterior of Back Bedroom Window		15-37 15-38 15-39	0% 0% 0%								
Mastic/Adhesive Black, Under Glossy Wood Flooring Floor Area Near Den Windows Floor Area Near Den Windows Floor Area Near Den Windows		15-40 15-41 15-42	0% 0% 0%								

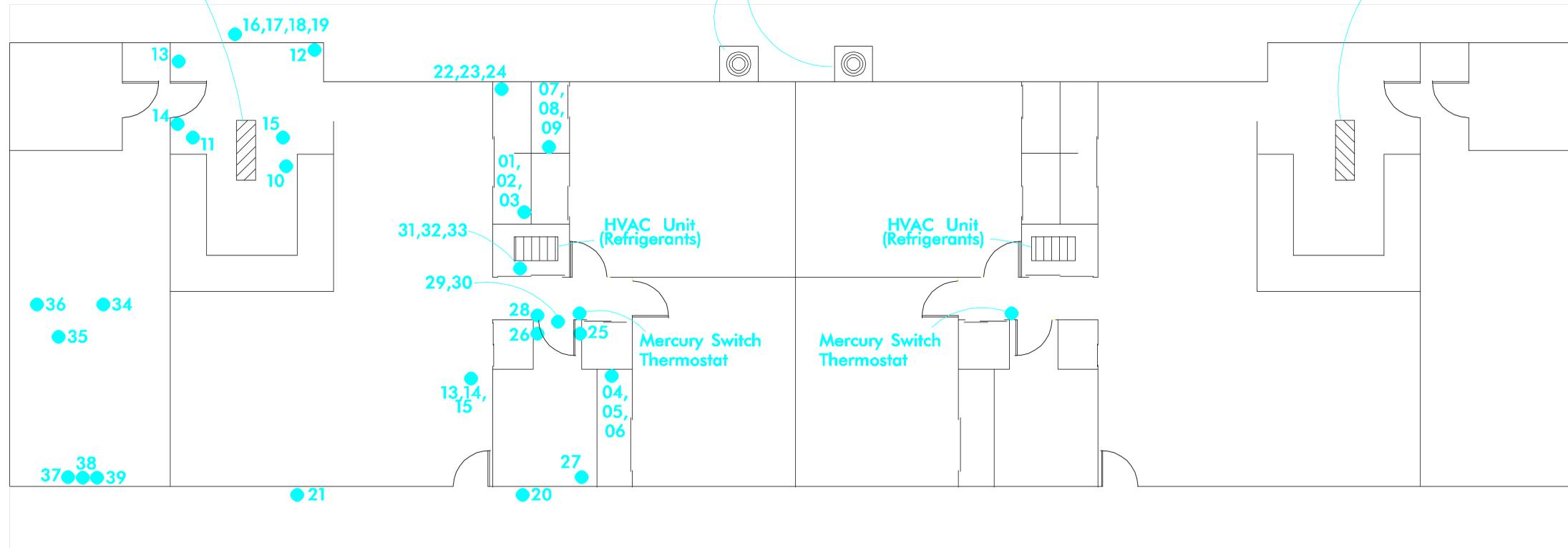
APPENDIX 4
HOUSING TYPE 18



1'x 4' Florescent Light
Tube/Ballast &
Possible PCB
Transformer

Condenser Unit
(Refrigerants)

1'x 4' Florescent Light
Tube/Ballast &
Possible PCB
Transformer



LEGEND

● 61 Sample Number and Location

— Roof Overhang

No Treated Wood Was Present



REVISIONS			
PROJECT NO.	01113106.3.0008	DATE	07/2002
DRAWN BY	CDH	APPROVED BY	DDP

SAMPLE LOCATIONS
 111 New York, Housing Type 18
 Dyess Air Force Base
 Abilene, Texas

Carter=Burgess

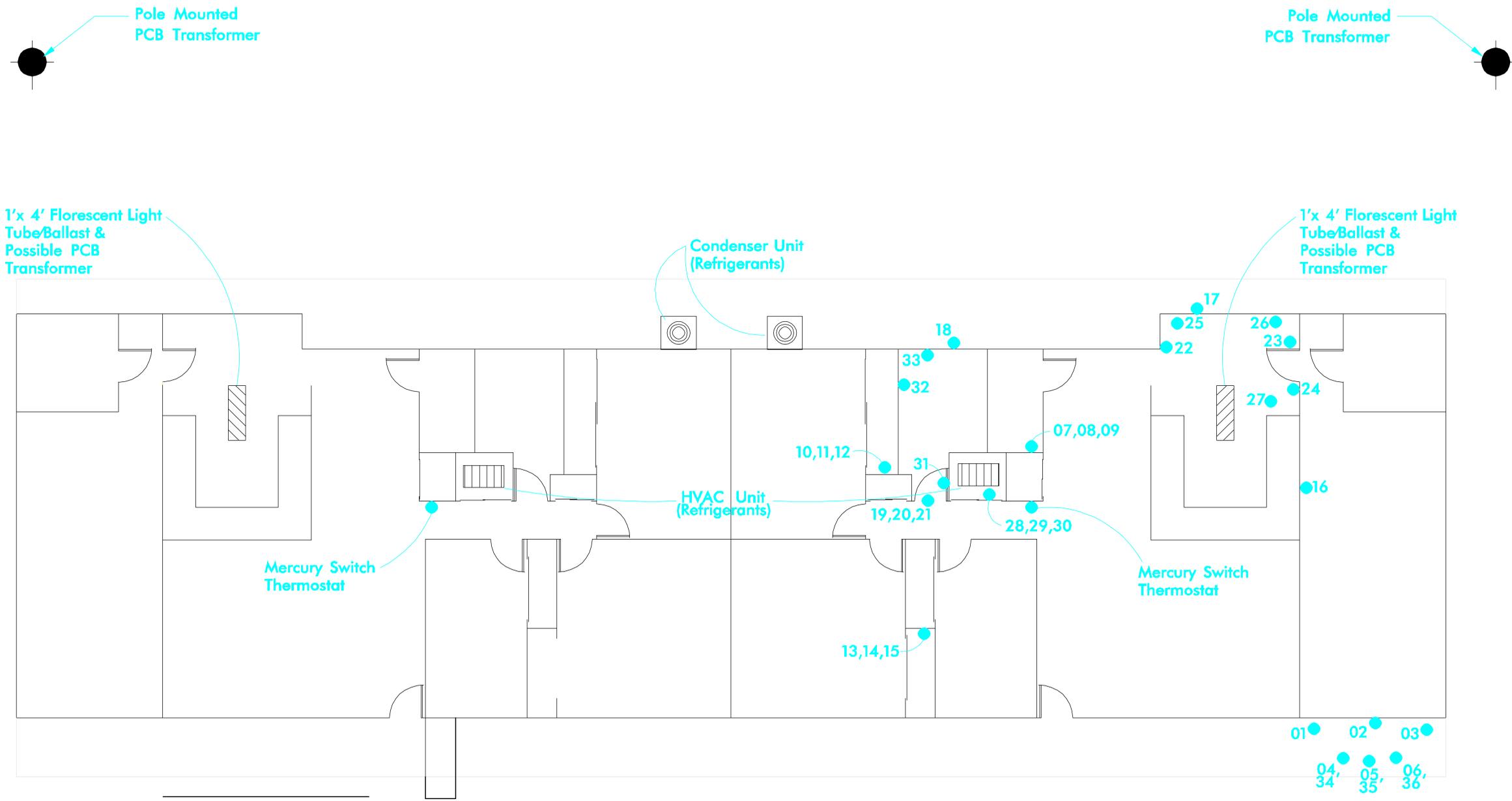
SHEET
 4
 OF 5 SHEETS

General Material Type Material Description Sample Location(s)	ACM Photo ID	Sample Number	% Asbestos/ Type	Material Type	Friable	Condition	Damage Type	Accessibility	Assessment Code	Min. Response	Estimated Extent
Wall Texture White Den Closet Front Bedroom Closet Back Bedroom Closet	9	18-01 18-04 18-07	*<1% Chrysotile *<1% Chrysotile *<1% Chrysotile								1700 SF
Joint Compound White Den Closet Front Bedroom Closet Back Bedroom Closet	9	18-02 18-05 18-08	*<1% Chrysotile *<1% Chrysotile *<1% Chrysotile								1700 SF
Wallboard White Drywall Material Den Closet Front Bedroom Closet Back Bedroom Closet		18-03 18-06 18-09	0% 0% 0%								
12"x12" Resilient Floor Tile White with Tan Flecks Kitchen Kitchen Kitchen		18-10A 18-11A 18-12A	0% 0% 0%								
Flooring Mastic Yellow Associated with Above Kitchen Kitchen Kitchen		18-10B 18-11B 18-12B	0% 0% 0%								
Covebase Brown Kitchen Kitchen Kitchen		18-13A 18-14A 18-15A	0% 0% 0%								
Covebase Mastic Tan Kitchen Kitchen Kitchen		18-13B 18-14B 18-15B	0% 0% 0%								
Caulk Gray, On Interior Storm Window Rear Kitchen Window Rear Kitchen Window Rear Kitchen Window	10	18-16 18-17 18-18	8% Chrysotile Positive Stop Positive Stop	M	N Cat 2	D	W	L	6	2	20 LF
Caulk Brown, Exterior Panelling of Window Rear Kitchen Window Rear Kitchen Window Rear Kitchen Window		18-19 18-20 18-21	0% 0% 0%								
Pipe Insulation Orange Closet in Den Closet in Den Closet in Den		18-22A 18-23A 18-24A	0% 0% 0%								
Pipe Insulation Cover White Sealant on Cover Closet in Den Closet in Den Closet in Den		18-22B 18-23B 18-24B	0% 0% 0%								
Ceramic Tile 2" x 2" White Wall Tile Bathroom Bathroom Bathroom		18-25A 18-26A 18-27A	0% 0% 0%								
Thin Set on Ceramic Tile Tan Associated with Above Bathroom Bathroom Bathroom		18-25B 18-26B 18-27B	0% 0% 0%								
Ceramic Tile Grout Gray Associated with Above Bathroom Bathroom Bathroom		18-25C 18-26C 18-27C	0% 0% 0%								

General Material Type Material Description Sample Location(s)	ACM Photo ID	Sample Number	% Asbestos/ Type	Material Type	Friable	Condition	Damage Type	Accessibility	Assessment Code	Min. Response	Estimated Extent
Ceramic Tile 1" x 1" Cream Floor Tile Bathroom Bathroom Bathroom		18-28A 18-29A 18-30A	0% 0% 0%								
Ceramic Tile Grout Gray Associated with Above Bathroom Bathroom Bathroom		18-28B 18-29B 18-30B	0% 0% 0%								
Mortar Dark Gray Associated with Above Bathroom Bathroom Bathroom		18-28C 18-29C 18-30C	0% 0% 0%								
Fiberboard Panels Gray, Cementitious Utility Closet Utility Closet Utility Closet	11	18-31 18-32 18-33	45% Chrysotile Positive Stop Positive Stop	M	N Cat 2	G	--	M	5	3	10 SF
Exterior Soffit Panels Off-White Carport Ceiling Carport Ceiling Carport Ceiling		18-34 18-35 18-36	0% 0% 0%								
Roof Felt Black Carport Roof Carport Roof Carport Roof		18-37 18-38 18-39	0% 0% 0%								

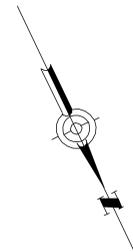
APPENDIX 5

HOUSING TYPE 20



LEGEND

- 61 Sample Number and Location
- Roof Overhang
- Treated Wood



REVISIONS			
PROJECT NO.	0113106.3.0008	DATE	07/2/02
DRAWN BY	CDH	APPROVED BY	DJP

SAMPLE LOCATIONS
 120 Oklahoma, Housing Type 20
 Dyess Air Force Base
 Abilene, Texas



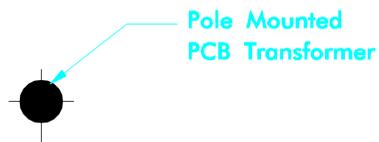
Project Name: 120 OK, Housing Type 20, Dyess AFB Family Housing

Project No: 011131.063

General Material Type Material Description Sample Location(s)	ACM Photo ID	Sample Number	% Asbestos/ Type	Material Type	Friable	Condition	Damage Type	Accessibility	Assessment Code	Min. Response	Estimated Extent
Exterior Soffit Panels Off-White Carport Ceiling Carport Ceiling Carport Ceiling		20-01 20-02 20-03	0% 0% 0%								
Roof Felt Black Carport Roof Carport Roof Carport Roof		20-04 20-05 20-06	0% 0% 0%								
Wall Texture White Den Closet Back Bedroom Closet Large Front Bedroom	12	20-07 20-10 20-13	*<1% Chrysotile *<1% Chrysotile *<1% Chrysotile								1700 SF
Joint Compound White Den Closet Back Bedroom Closet Large Front Bedroom	12	20-08 20-11 20-14	*<1% Chrysotile *<1% Chrysotile *<1% Chrysotile								1700 SF
Wallboard White Drywall Material Den Closet Back Bedroom Closet Large Front Bedroom		20-09 20-12 20-15	0% 0% 0%								
Caulk Brown Exterior of Carport/Kitchen Window Exterior of Den Window Exterior of Bathroom Window		20-16 20-17 20-18	0% 0% 0%								
Ceramic Tile 1" x 1" Cream Floor Tile Bathroom Bathroom Bathroom		20-19A 20-20A 20-21A	0% 0% 0%								
Ceramic Tile Grout Gray Associated with Above Bathroom Bathroom Bathroom		20-19B 20-20B 20-21B	0% 0% 0%								
Mortar Dark Gray Associated with Above Bathroom Bathroom Bathroom		20-19C 20-20C 20-21C	0% 0% 0%								
Covebase Brown Kitchen Kitchen Kitchen		20-22A 20-23A 20-24A	0% 0% 0%								
Covebase Mastic Brown Associated with Above Kitchen Kitchen Kitchen		20-22B 20-23B 20-24B	0% 0% 0%								
12"x12" Resilient Floor Tile White with Black & Brown Flecks & Streaks Kitchen Kitchen Kitchen		20-25A 20-26A 20-27A	0% 0% 0%								
Flooring Mastic Black Associated with Above Kitchen Kitchen Kitchen	13	20-25B 20-26B 20-27B	15% Chrysotile 15% Chrysotile 10% Chrysotile	M	N Cat 2	G	--	H	5	3	85 SF
Fiberboard Panels Gray, Cementitious Utility Closet Utility Closet Utility Closet	14	20-28 20-29 20-30	20% Chrysotile Positive Stop Positive Stop	M	N Cat 2	G	--	M	5	3	10 SF

APPENDIX 6

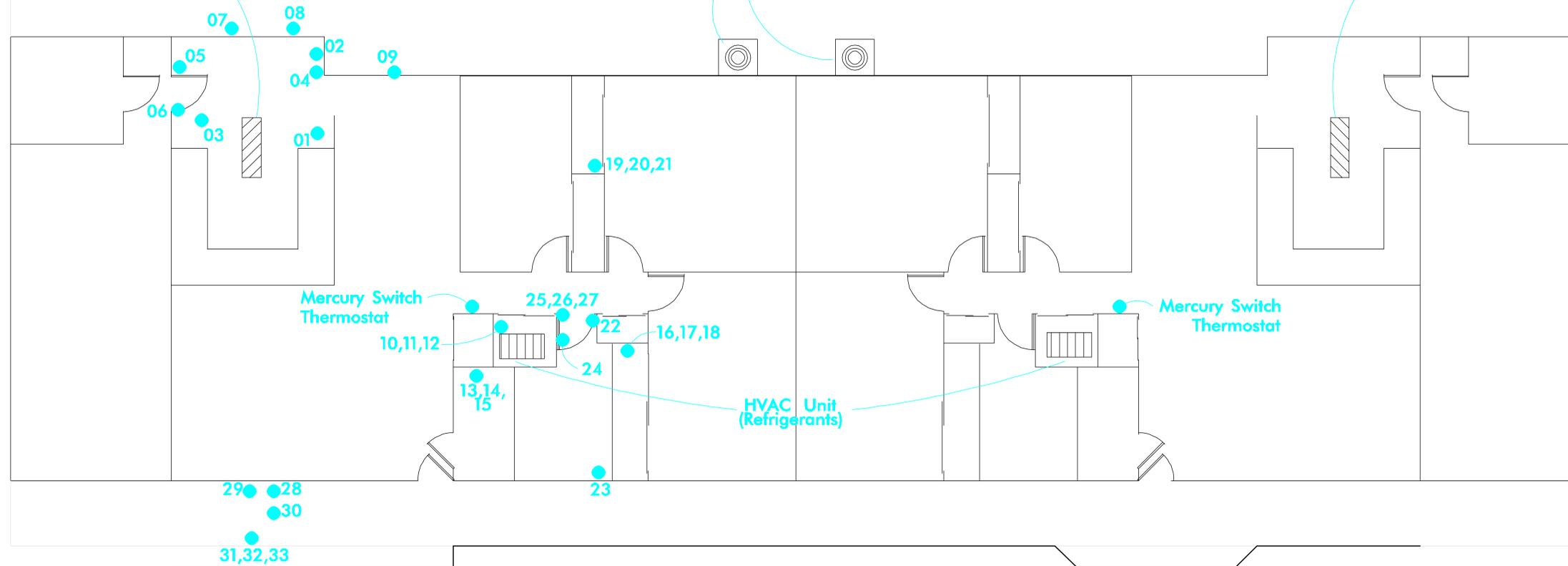
HOUSING TYPE 23



1'x 4' Florescent Light Tube/Ballast & Possible PCB Transformer

Condenser Unit (Refrigerants)

1'x 4' Florescent Light Tube/Ballast & Possible PCB Transformer

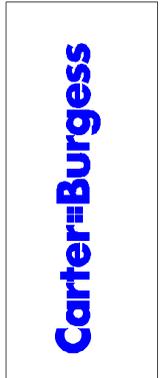


LEGEND

- 61 Sample Number and Location
- Roof Overhang
- Treated Wood

REVISIONS	
PROJECT NO.	0113106.3.0008
DRAWN BY	CDH
APPROVED BY	DDP
DATE	07/2002

SAMPLE LOCATIONS
103 New York, Housing Type 23
Dyess Air Force Base
Ablene, Texas



SHEET
 6
 OF 5 SHEETS

General Material Type Material Description Sample Location(s)	ACM Photo ID	Sample Number	% Asbestos/ Type	Material Type	Friable	Condition	Damage Type	Accessibility	Assessment Code	Min. Response	Estimated Extent
12"x12" Resilient Floor Tile White with Black & Brown Flecks & Streaks Kitchen Kitchen Kitchen		23-01A 23-02A 23-03A	0% 0% 0%								
Flooring Mastic Black Kitchen Kitchen Kitchen	15	23-01B 23-02B 23-03B	10% Chrysotile 10% Chrysotile 10% Chrysotile	M	N Cat 2	G	--	L	5	3	85 SF
Covebase Brown Kitchen Kitchen Kitchen		23-04A 23-05A 23-06A	0% 0% 0%								
Covebase Mastic Black Kitchen Kitchen Kitchen		23-04B 23-05B 23-06B	0% 0% 0%								
Caulk Brown Exterior of Rear Kitchen Window Exterior of Rear Kitchen Window Exterior of Rear Den Window		23-07 23-08 23-09	0% 0% 0%								
Fiberboard Panels Gray, Cementitious Utility Closet Utility Closet Utility Closet	16	23-10 23-11 23-12	15% Chrysotile Positive Stop Positive Stop	M	N Cat 2	G	--	M	5	3	10 SF
Wall Texture White Front Entrance Closet Front Bedroom Closet Large Back Bedroom Closet	17	23-13 23-16 23-19	*<1% Chrysotile *<1% Chrysotile *<1% Chrysotile								1700 SF
Joint Compound White Front Entrance Closet Front Bedroom Closet Large Back Bedroom Closet	17	23-14 23-17 23-20	*<1% Chrysotile *<1% Chrysotile 0%								1700 SF
Wallboard White Drywall Material Front Entrance Closet Front Bedroom Closet Large Back Bedroom Closet		23-15 23-18 23-21	0% 0% 0%								
Ceramic Tile 2" x 2" White Wall Tile Bathroom Bathroom Bathroom		23-22A 23-23A 23-24A	0% 0% 0%								
Thin Set on Ceramic Tile Tan Associate with Above Bathroom Bathroom Bathroom		23-22B 23-23B 23-24B	0% 0% 0%								
Ceramic Tile Grout Gray Associated with Above Bathroom Bathroom Bathroom		23-22C 23-23C 23-24C	0% 0% 0%								
Ceramic Tile 1" x 1" Cream Floor Tile Bathroom Bathroom Bathroom		23-25A 23-26A 23-27A	0% 0% 0%								
Ceramic Tile Grout Gray Associated with Above Bathroom Bathroom Bathroom		23-25B 23-26B 23-27B	0% 0% 0%								



Plate 1: A view of the asbestos-containing material 12" x 12" Resilient Floor Tile and Associated Mastic in the kitchen. (Housing Type 11)



Plate 2: A view of the (<1% asbestos) Wall Texture and underlying Joint Compound in the den. (Housing Type 11)



Plate 3: A view of the asbestos-containing Fiberboard Panel in the water heater closet.
(Housing Type 11)



Plate 4: A view of the (<1% asbestos) Wall Texture and underlying Joint Compound in the den. (Housing Type 14)



Plate 5: A view of the asbestos-containing material 12" x 12" Resilient Floor Tile and Associated Mastic in the kitchen. (Housing Type 14)



Plate 6: A view of the asbestos-containing Fiberboard Panel in the water heater closet. (Housing Type 14)



Plate 7: A view of the asbestos-containing material 12" x 12" Resilient Floor Tile and Associated Mastic in the kitchen. (Housing Type 15)



Plate 8: A view of the asbestos-containing Fiberboard Panel in the water heater closet. (Housing Type 15)



Plate 9: A view of the (<1% asbestos) Wall Texture and underlying Joint Compound in the den. (Housing Type 18)



Plate 10: A view of the asbestos-containing Caulk on the interior storm windows. (Housing Type 18)



Plate 11: A view of the asbestos-containing Fiberboard Panel in the water heater closet. (Housing Type 18)

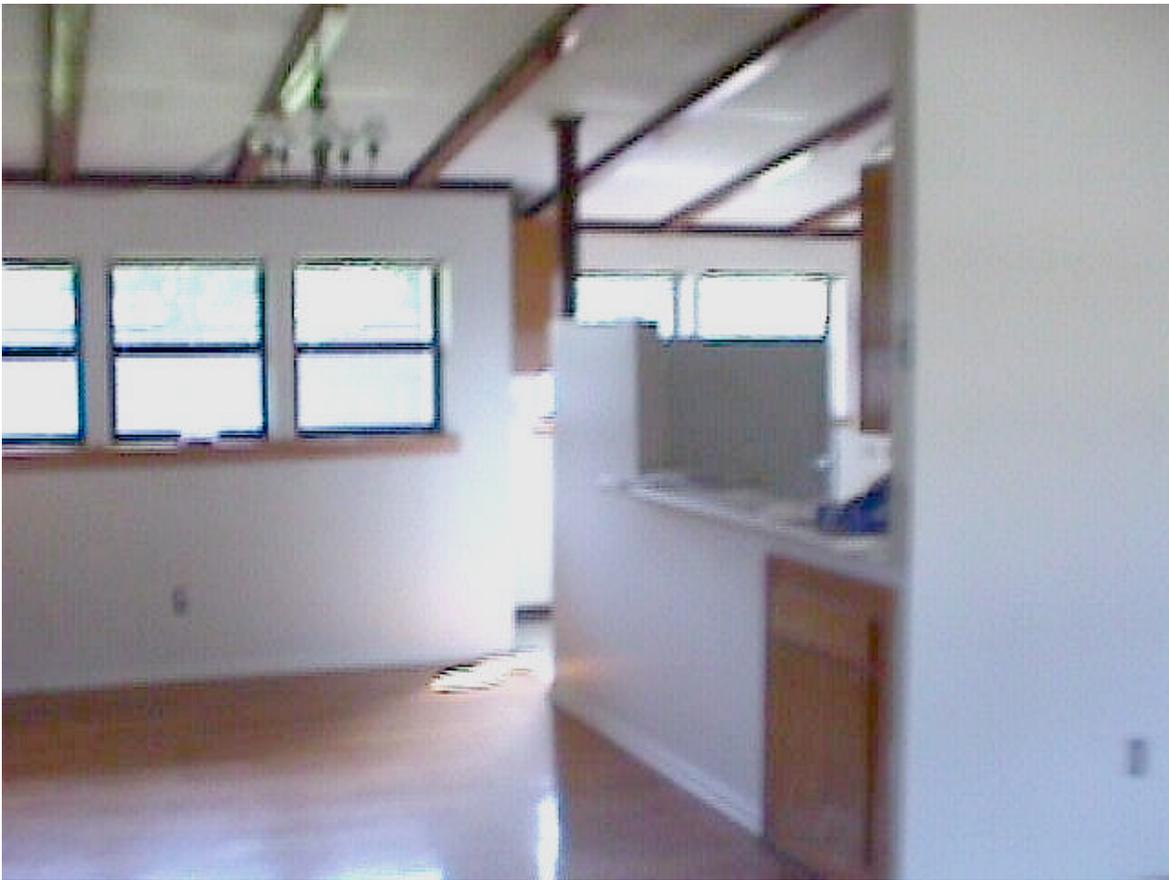


Plate 12: A view of the (<1% asbestos) Wall Texture and underlying Joint Compound in the den. (Housing Type 20)



Plate 13: A view of the asbestos-containing material 12" x 12" Resilient Floor Tile and Associated Mastic in the kitchen. (Housing Type 20)



Plate 14: A view of the asbestos-containing Fiberboard Panel in the water heater closet.
(Housing Type 20)



Plate 15: A view of the asbestos-containing material 12" x 12" Resilient Floor Tile and Associated Mastic in the kitchen. (Housing Type 23)



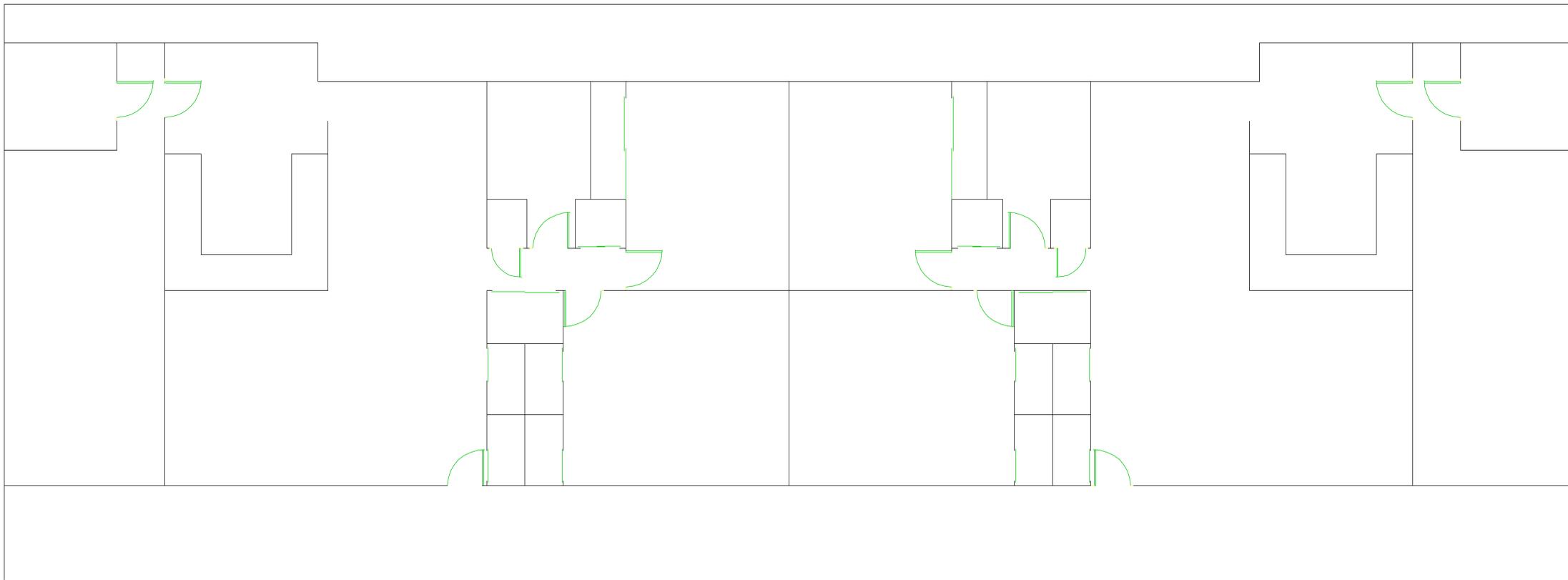
Plate 16: A view of the asbestos-containing Fiberboard Panel in the water heater closet. (Housing Type 23)



Plate 17: A view of the (<1% asbestos) Wall Texture and underlying Joint Compound in the den. (Housing Type 23)

APPENDIX 7

OTHER HOUSING TYPES

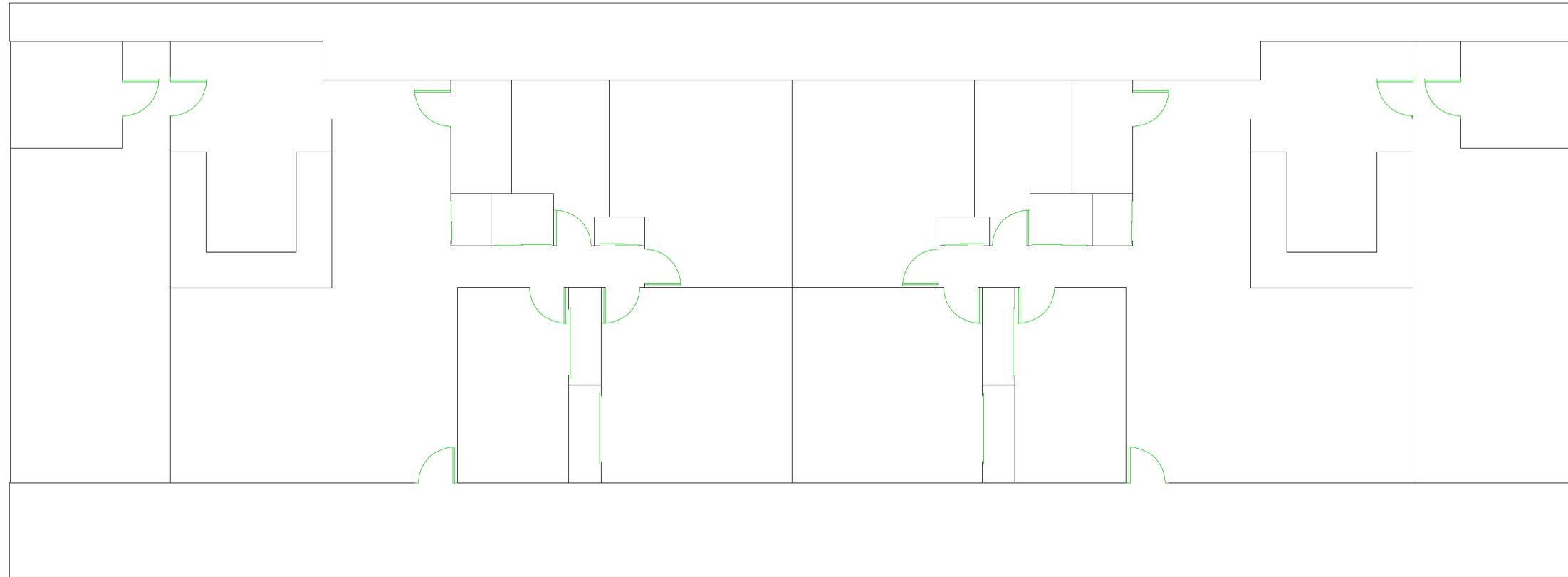


**SAMPLE LOCATIONS
TYPE 17
Dyess Air Force Base
Abilene, Texas**



SHEET
1
OF 5 SHEETS

PROJECT NO.	0113106.3.0008	REVISIONS
DRAWN BY	CDH	
APPROVED BY	DDP	
DATE	07/202	

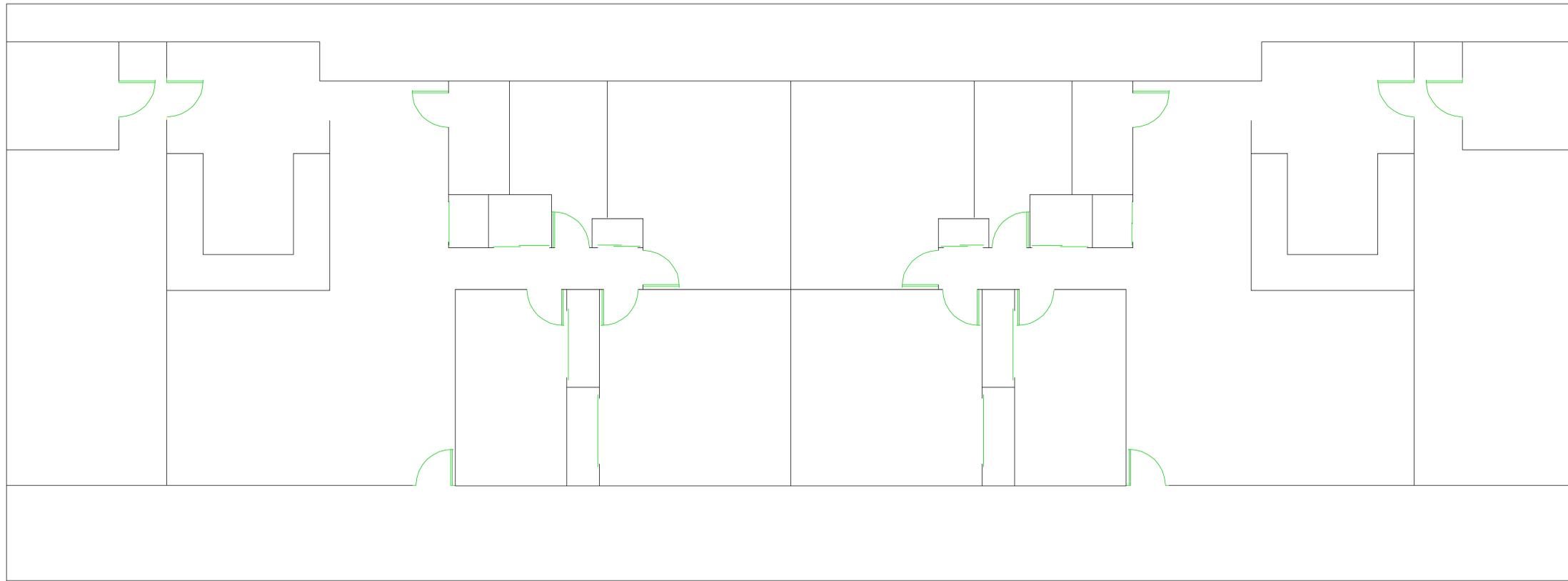


**SAMPLE LOCATIONS
TYPE 19
Dyess Air Force Base
Abilene, Texas**

PROJECT NO.	0113106.3.0008	REVISIONS
DRAWN BY	CDH	
APPROVED BY	DDP	
DATE	07/202	



SHEET
2
OF 5 SHEETS

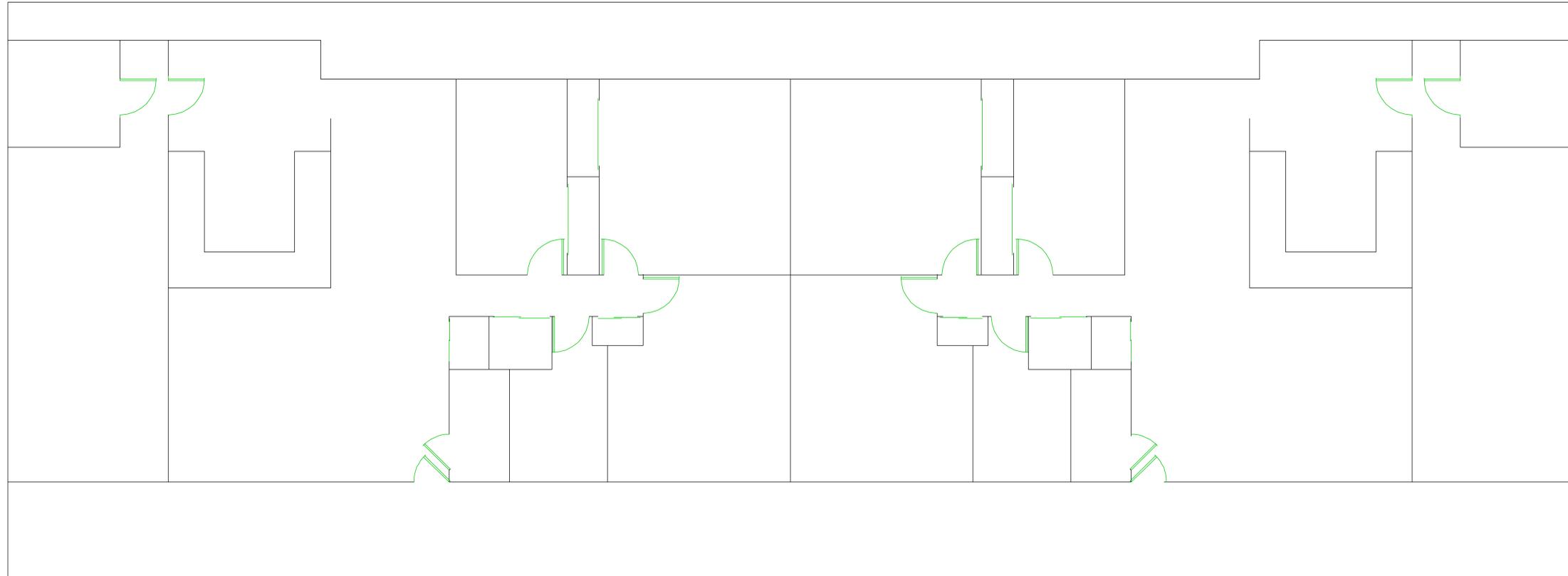


**SAMPLE LOCATIONS
TYPE 21
Dyess Air Force Base
Abilene, Texas**



SHEET
3
OF 5 SHEETS

PROJECT NO.	0113106.3.0008	REVISIONS
DRAWN BY	CDH	
APPROVED BY	DDP	
DATE	07/20/02	



**SAMPLE LOCATIONS
TYPE 22
Dyess Air Force Base
Abilene, Texas**



SHEET

4

OF 5 SHEETS

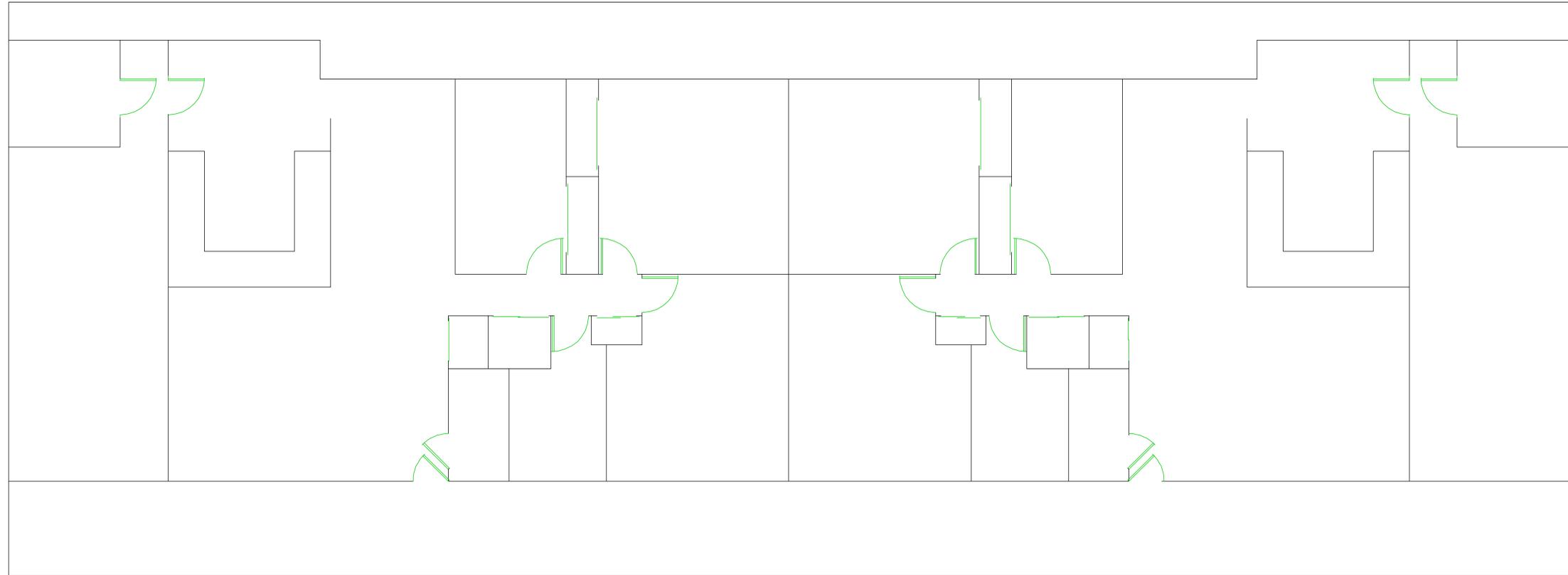
REVISIONS

PROJECT NO. 0113106.3.0008

DRAWN BY CDH

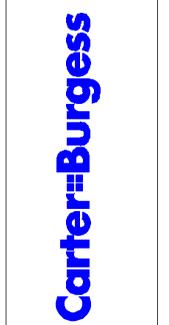
APPROVED BY DDP

DATE 07/20/02



**SAMPLE LOCATIONS
TYPE 24
Dyess Air Force Base
Abilene, Texas**

PROJECT NO.	0113106.3.0008	REVISIONS
DRAWN BY	CDH	
APPROVED BY	DDP	
DATE	07/202	



SHEET
5
OF 5 SHEETS

APPENDIX NO. 3

**DYESS DESIGN TECHNICAL
LETTER NUMBER 2 (DDTL)**

CEC

DYESS DESIGN TECHNICAL LETTER (DDTL) NO. 2

ARCHITECTURAL AND LANDSCAPE GUIDELINES

FOR

**DYESS AIR FORCE BASE
ABILENE, TEXAS**

26 JUN 95

1ST REVISION 25 APR 96

2ND REVISION 24 JUL 98

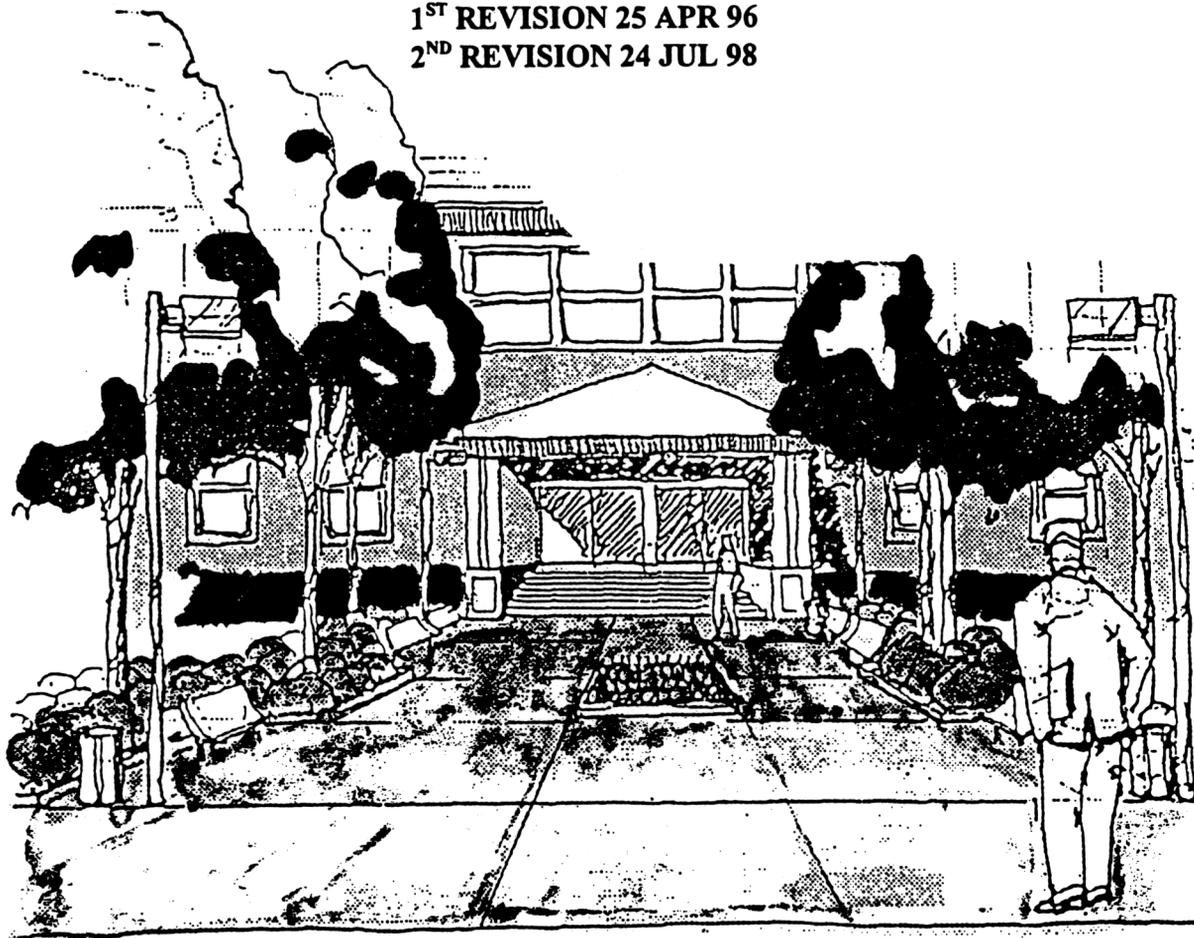


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INTRODUCTION

The overall intent of this guideline is to establish architectural standards and landscape standards for an orderly, consistent, and uniform development of Dyess AFB.

These guidelines focus on the functional and physical patterns of use of land; the determination of architectural and landscape elements and open spaces which respect and build upon the features and direction of the existing facility; and with the development of appropriate, identifiable boundaries and buffers defining Dyess AFB.

It should be pointed out that the planning process is ever changing, and any plan must be flexible to allow for changes in policy, values, and the many interests from within and outside Dyess AFB. Periodic review and updating of this guideline is a necessity for continued progress and success.



EXECUTIVE SUMMARY

While Dyess AFB has done much in organizing its physical and visual environment, these guidelines are being established to ensure compatibility of all future projects with the architecture of the Base.

These guidelines provide specific direction in unifying the physical and visual environment. In doing so, Dyess AFB will continue to move toward a consistent physical character of higher quality which is appropriate to its setting and mission; an environment that is functional and attractive and will benefit military, civilian personnel, and visitors alike.

Dyess AFB has already accomplished major efforts aimed at achieving architectural compatibility and good land use planning. In 1984, "Architectural Design Guidelines" were prepared. This new architectural and landscape guideline supersedes the 1984 report. Further steps were taken in 1986 with the development of the Base Comprehensive Plan (BCP), which addresses land use and "zoning" issues throughout the Base, identifies use zones and sets forth recommendations for future development. The BCP is currently being updated to reflect changes in mission and need over the past eight years.

These efforts have resulted in many positive steps being taken at Dyess to achieve a physically and visually harmonious installation. District zones have been established and given specific character through architectural styles, massing, materials, and color.

Dyess does not have an overall architectural theme. The intent of this guideline is to make the Base compatible and unify it visually by applying a uniform, consistent approach to the use of landscaping, materials, colors, and texture.

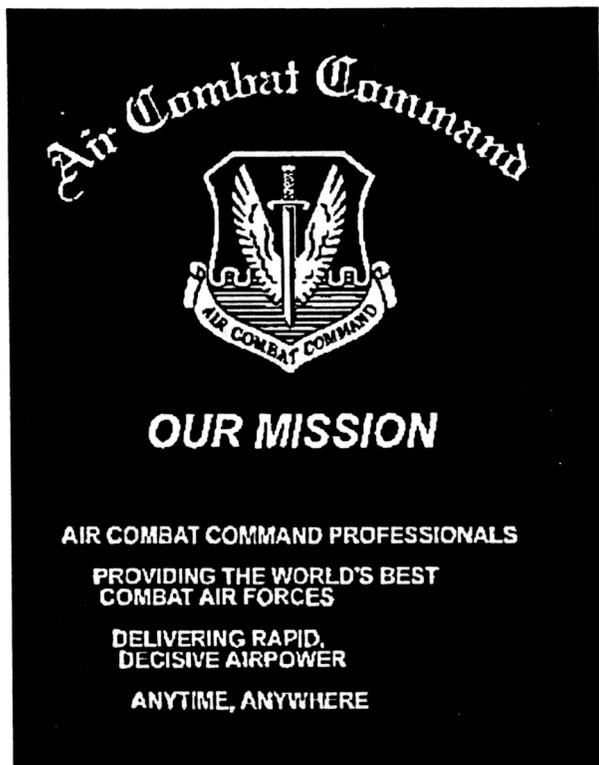
MISSION AND PURPOSE

In July 1952, Congress approved funds for the construction of the Air Base known as Abilene Air Force Base, the SAC Base was dedicated by the city fathers of Abilene on April 25, 1956. Dyess AFB became an ACC Base in 1991.

Dyess AFB operates with the B-1B and C-130 aircraft in addition to several T-38 aircraft which are used for training purposes. The 7th Wing is the only wing at Dyess.

On October 1, 1993, the 96th Wing stood down and assumed the name of the 7th Wing from Carswell, along with its current mission. The 7th Wing flies the B-1B Lancer and C-130 Hercules. Dyess AFB trains all Air Force B-1 crews and is commonly referred to as the "Home of the B-1".

The 7th Wing is comprised of four groups and 22 squadrons. The wing's four groups are: operations, logistics, support, and medical. The mission of the wing is proud people working together, training and exercising to provide the "Best" quality professionals, delivering global power and airlift forces to the theater commander.



REGIONAL SETTING

Dyess AFB is located on the western outskirts of the city of Abilene, Texas.

Located in Taylor County, Abilene is a West Central Texas city about 183 miles west of Dallas and 250 miles north of San Antonio.

It is the center of a 22-county area called Big Country, and considered the economic hub in this part of Texas.

Near the geographic center of the state, Abilene is easily accessible by five major highways - Interstate 20, Highways 80 and 84 east and west, as well as Highways 83 and 277 north and south.

The climate is temperate with average low temperatures of 64.5 Fahrenheit and average highs of 84.1 F. Relatively low humidity keeps the West Texas sun from being too oppressive. Average yearly rainfall is 23.25 inches and the elevation is 1,750 feet.

Abilene is in the Central Time Zone.

The regional character of the area is that of prairie and plains that are dissected by numerous streams and creeks. The Edwards Plateau is the most conspicuous feature. The surface terrain of the rolling plains extends from east to west across the country, and is outlined in most areas by steep escarpments.

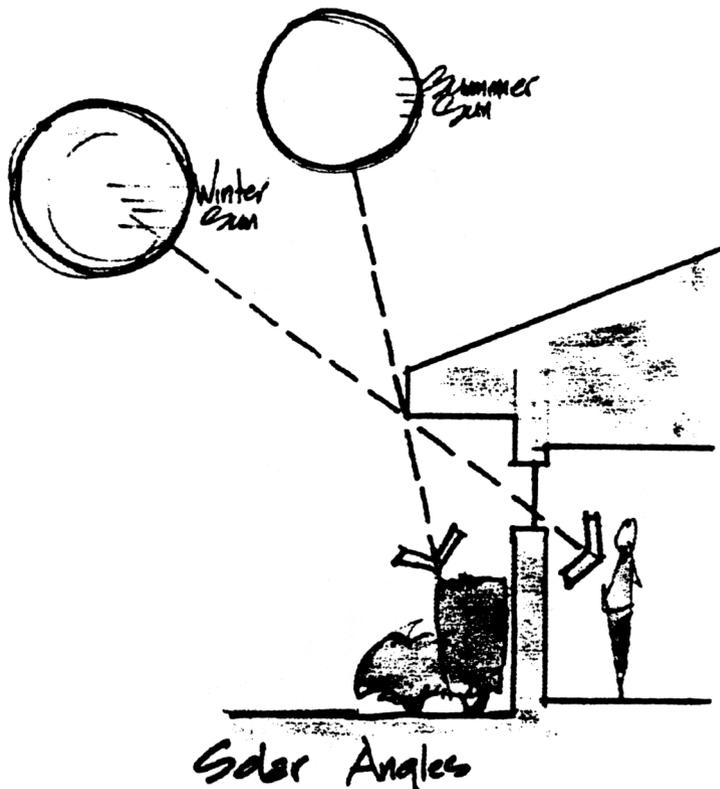


On the Base, soils are predominantly of the Tobosa series, which consists of deep, nearly level to gently sloping, well-drained, clay soils and uplands. Permeability is very slow in these soils. Internal drainage is likewise very slow. For purposes of development, these soils pose some hazard to foundations because of shrink-swell potential. For landscaping purposes, slow permeability and high concentrations of lime (lime limits availability of iron to plants, causing chlorosis) create moderate problems for ornamental plants.

Sun angles range from 36 degrees in the winter to 82 degrees in the summer. In summer, the prevailing winds are southerly, with occasional evening thunderstorms. Winter winds are generally northerly. Snowfall is infrequent.

Solar gain in the west Texas area should be a design consideration that will impact upon the selection of architectural and landscape materials. Solar gain will affect the selection of glazing, window frame types, venetian blinds, site orientation, and selection and placement of foliage.

Careful placement of vegetation can provide shade on buildings and therefore reduce air conditioning loads and reduce energy costs. Shade on the west and south facades are important design considerations for Dyess AFB.



ARCHITECTURAL GUIDELINES

GENERAL INSTRUCTIONS

Three (3) zones on the Base have been identified for purposes of color coding and material selection (See page 7).

Zone 1 is predominantly industrial and medical facilities.

Zones 2 and 3 both have a mixture of administrative and dormitory facilities.

The following guidelines are to apply to these zones, in order to maintain architectural consistency throughout the Base.

Within Zones 1, 2, and 3 - paint any and all visible piping, conduit, ducts, etc., to match adjacent material's color.

Complete painting all buildings within their respective zones, to match the base color scheme.

Continue program to bury overhead power lines.

Remove split rail wood fencing and replace with an allowable standard.

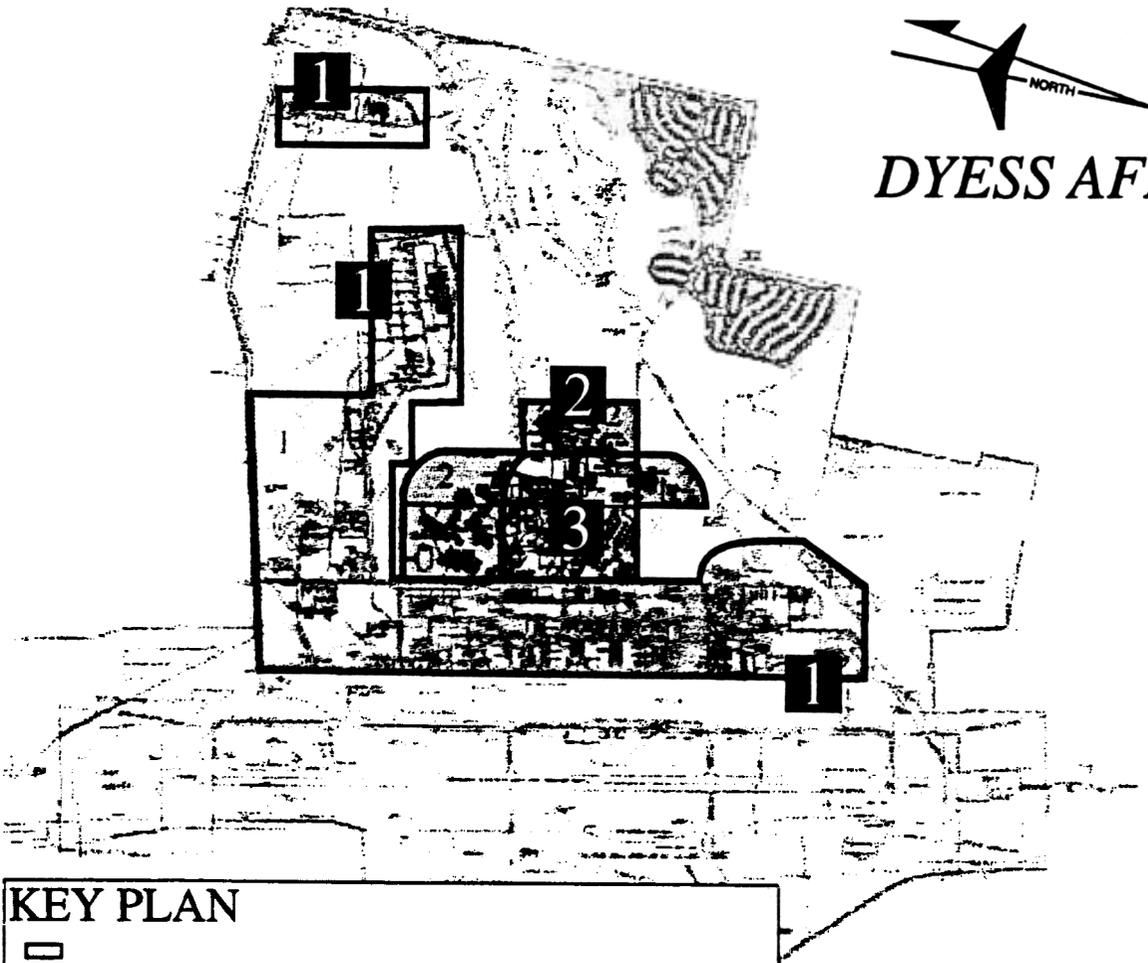
Discontinue the practice of local purchases and installation of metal buildings with 1 on 12 roof slopes.

Use metal buildings only on large, new facilities in the industrial area. Provide a brick base at the bottom (First Floor Level). This defines the base of the building and provides a hard surface in case vehicles back into the building. Smaller buildings should be brick, in keeping with the ACC standards.

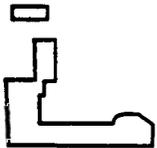
Projects at Dyess AFB must conform to ACC Architectural and Interior Design Guidelines.



DYESS AFB



KEY PLAN



ZONE 1 — INDUSTRIAL AND
MEDICAL FACILITIES



ZONE 2 — ADMINISTRATIVE AND
DORMITORY FACILITIES



ZONE 3 — ADMINISTRATIVE, DORMITORY AND
COMMUNITY FACILITIES

ZONES OF ARCHITECTURAL COMPATIBILITY

ARCHITECTURAL GUIDELINES
ROOFS - GENERAL INFORMATION

It is Dyess AFB policy and Command policy to make all roofs pitched, with a slope of not less than 3 on 12, including all metal buildings.

Where compatible, a standing seam metal roof on metal trusses is preferred.

Metal buildings with roof slopes that are less than 3 on 12 are not permitted. Note that the typical 1 on 12 roof slopes provided by metal building manufacturers require special prior approval.

Mansard roofs do not conform to ACC policy. The existing buildings with mansard roofs were designed and built prior to the establishment of this policy.

Base approval is required for the use of built-up roofing (BUR) in Zone 1 - when no other alternatives exist - for such buildings as large warehouses and large hangars.

Gutters and downspouts are required for all roofs. Copper gutters and downspouts shall be used in Zones 2 and 3. Exposed copper gutters and downspouts shall not be painted.

Roof top equipment is prohibited - unless absolutely necessary and then Base approval will be required.

Vent piping, flues, exhaust fans, etc., penetrating roofs shall be treated as trim material and painted the required trim color.

<u>ZONE</u>	<u>ALLOWABLE ROOF FINISHES</u>
1	a. Asphalt Shingles b. Standing Seam Metal Roof
2	a. Asphalt Shingles b. Concrete Roof Tiles c. Standing Seam Metal Roof
3.	a. Asphalt Shingles b. Concrete Roof Tiles c. Standing Seam Metal Roof

ARCHITECTURAL GUIDELINES

EXTERIOR WALL FINISH - GENERAL INFORMATION

The majority of brick buildings at Dyess AFB, particularly in the area east of Third Street, have been built with Acme - "Cherokee Mingle Brick." This brick is a multi-color brick that includes two shades of red and two shades of charcoal uniformly blended - it is no longer available. Brick nominal size was 4" x 4" x 12" but a few buildings have 4" x 4" x 8" brick. The 4" x 4" x 12" "jumbo" brick is no longer available, modular size brick can be used instead.

New brick construction must match the existing brick as closely as possible. On new stand-alone facilities a blend of brick colorations that closely matches the original brick coloration should be used.

On additions to existing buildings, a very carefully articulated blend should be provided to match existing brick. The original building brick came from different lots and one brick blend will not necessarily satisfactorily match all original brick buildings. Each batch of new brick must be blended separately and a good match is mandatory. Brick shall not be delivered to the job site until sample panels have been compared with existing brick to determine that the match is satisfactory.

The brick of any American manufacturer that can provide a good match is acceptable if it meets the other quality standards. The Eureka Brick Plant in Arkansas has provided most of the brick used recently. Featherlite and Acme have also provided brick.

The architectural guidelines will reference "Acme - Cherokee Mingle" as the brick requirement for Dyess AFB. This requirement is for size, color, shade, and texture of the brick to be used.

Three exterior wall finishes are allowed within Zones 1, 2, and 3, respectively.

<u>ZONE</u>	<u>ALLOWABLE EXTERIOR FINISHES</u>
1	a. Exterior Insulation & Finish System b. Pre-Engineered Metal Buildings
2	Brick Exterior
3	Brick Exterior

ARCHITECTURAL GUIDELINES

WINDOWS - GENERAL INFORMATION

New Construction

Because of the low sun angle in this area, narrow recessed windows with insulated glass, set in thermally broke aluminum frames should be considered where it is cost effective. The glass should be tinted to help reduce the intense glare from the sun. The frames should be bronze anodized. Overhangs and wingwalls can serve to reflect the sun's rays.

Alteration/Renovation/Replacement - Existing Construction

Larger windows scheduled to be replaced should be replaced with sizes to match existing. The new windows should be insulated glass set in thermally broke aluminum frames. The frames should be bronze anodized.

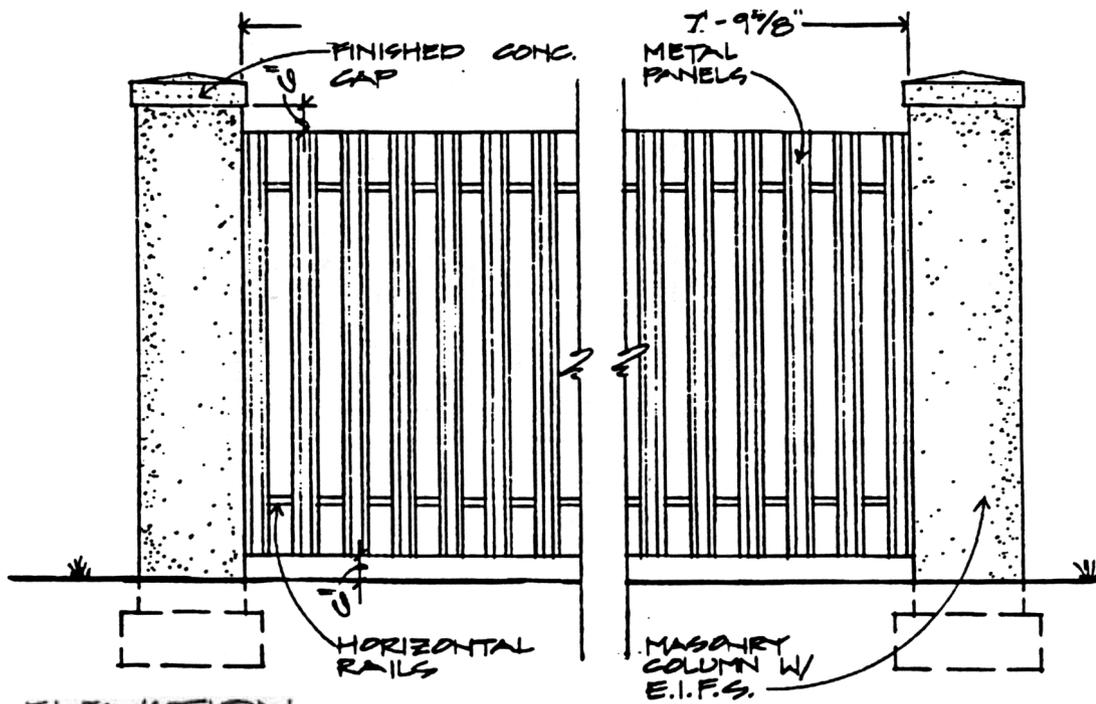
ARCHITECTURAL GUIDELINES

FENCES - GENERAL INFORMATION

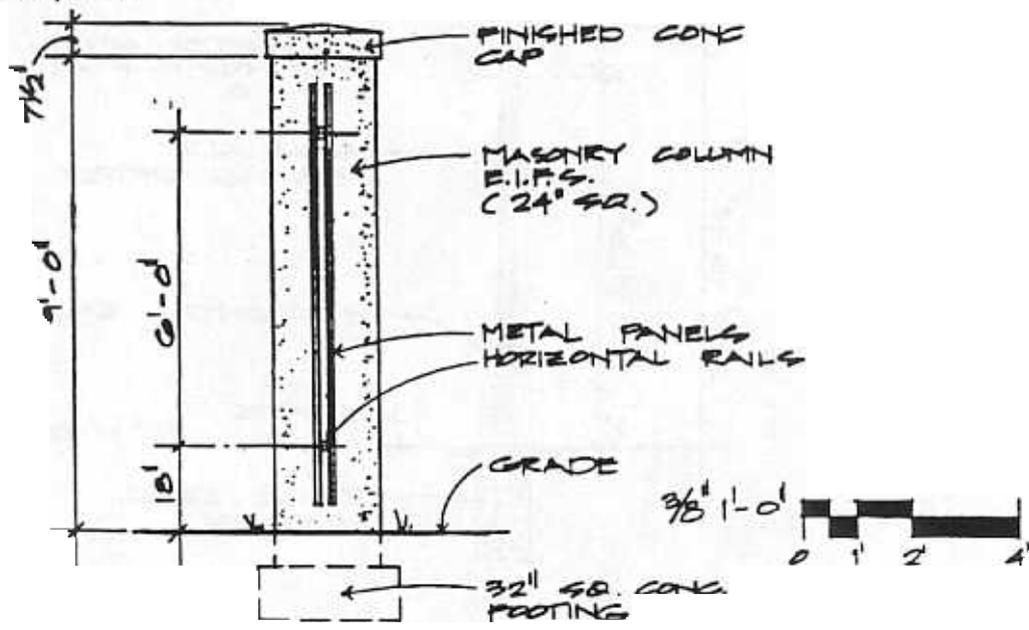
In an effort to unify the varying types of fences throughout the base and to unify the types of fences within each zone - five (5) fence standards have been identified and are to be used within their respective zones. Portions of fence can be replaced in phases, with the ultimate goal of achieving a consistent fence design within each zone.

<u>ZONE</u>	<u>ALLOWABLE FENCE TYPE</u>
2	Type A, Type B, & Type E Type C & Type D
3	Type C & Type D

ARCHITECTURAL COMPATIBILITY REQUIREMENTS



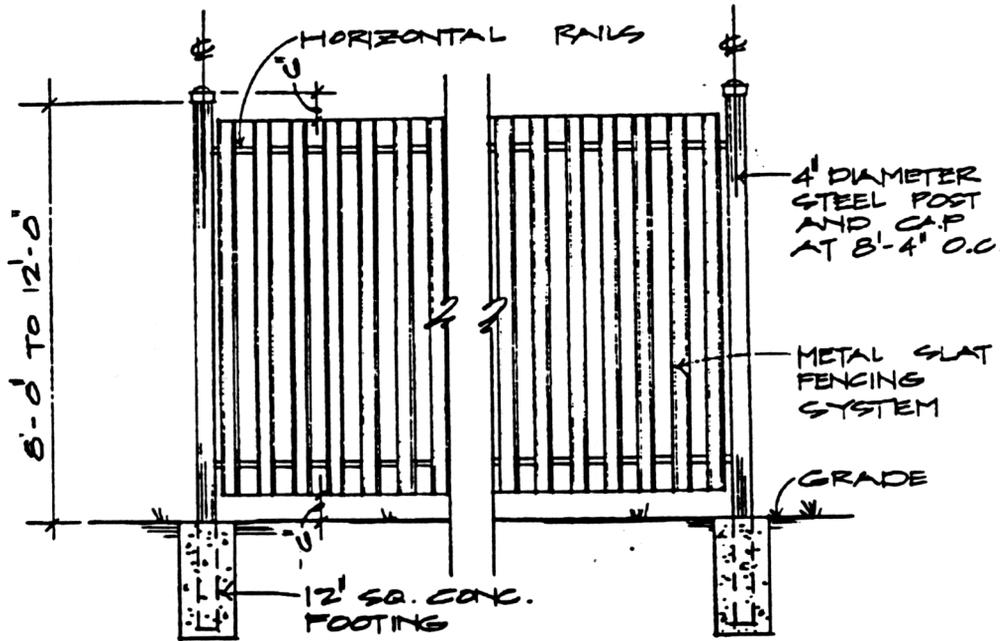
ELEVATION
3/8" = 1'-0"



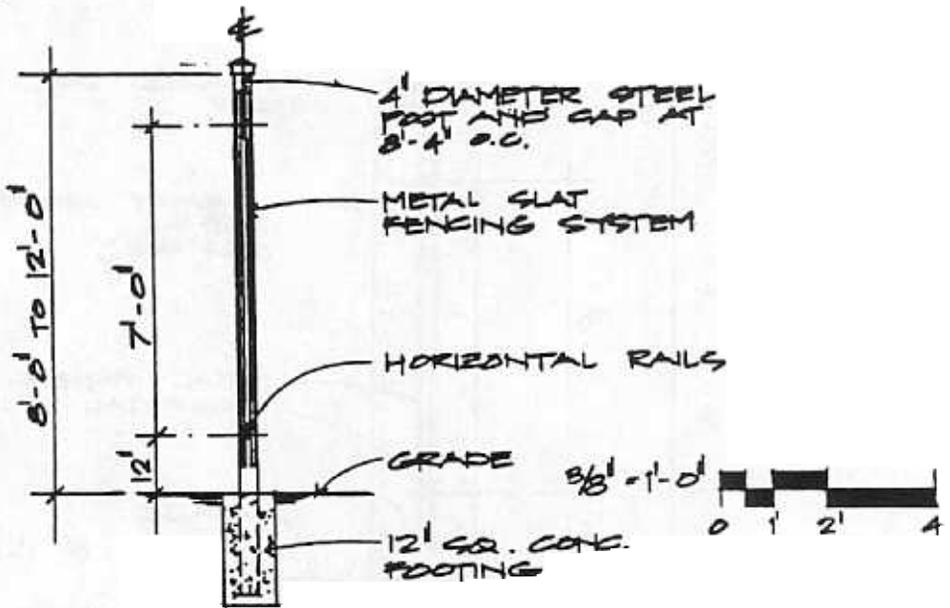
SECTION
3/8" = 1'-0"

FENCE TYPE A

ARCHITECTURAL COMPATIBILITY REQUIREMENTS



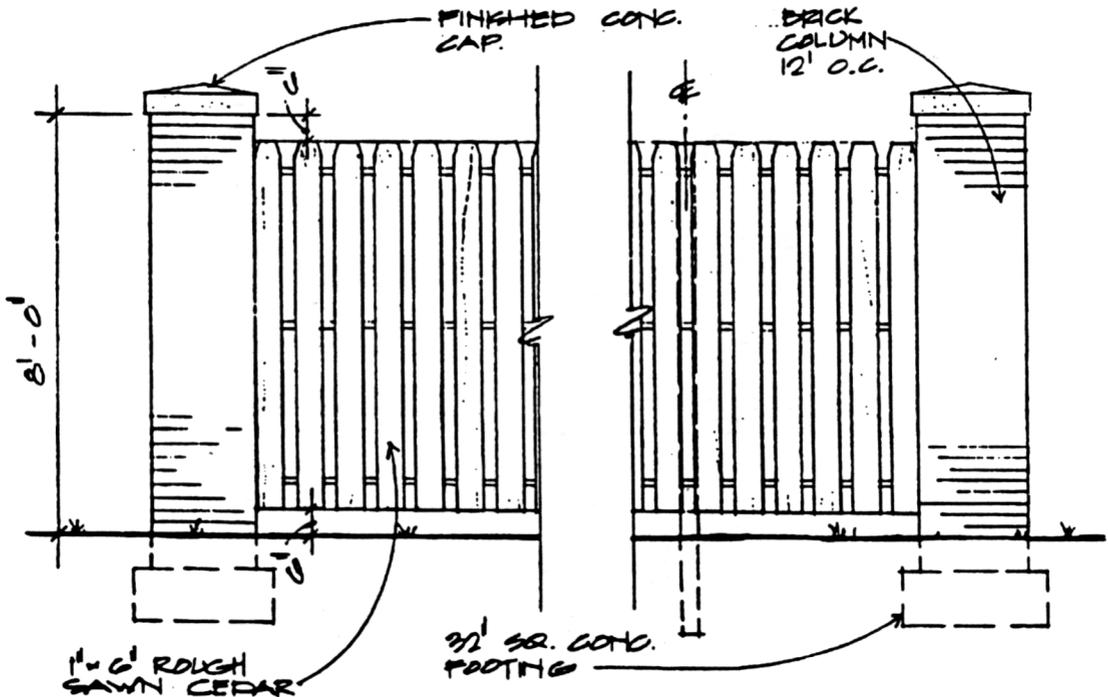
ELEVATION
3/8" = 1'-0"



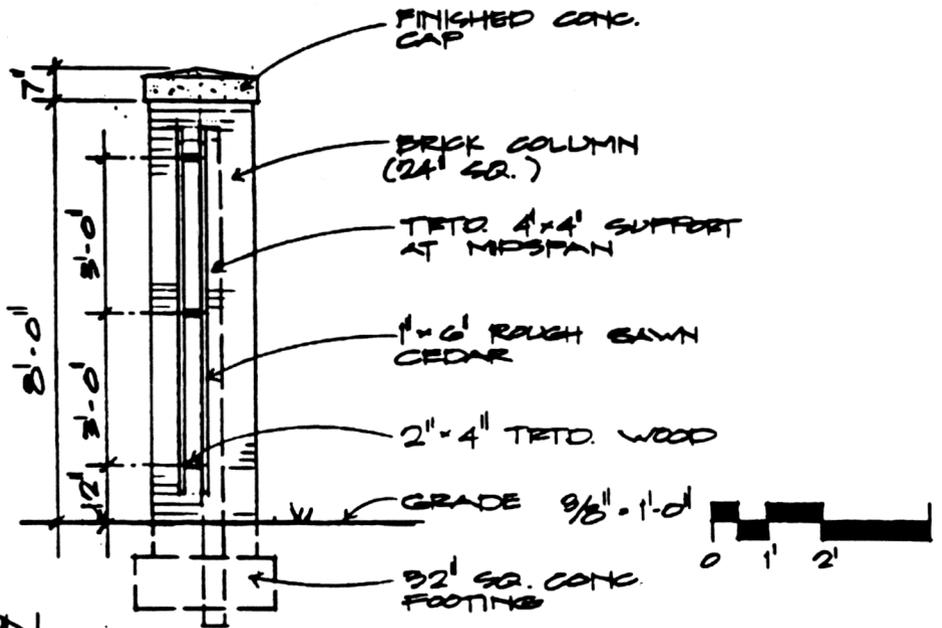
SECTION
3/8" = 1'-0"

FENCE TYPE B

ARCHITECTURAL COMPATIBILITY REQUIREMENTS



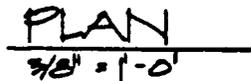
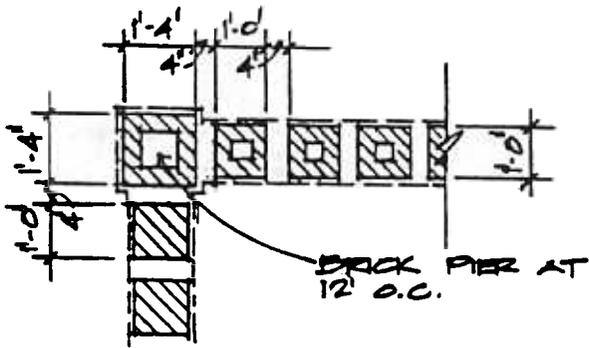
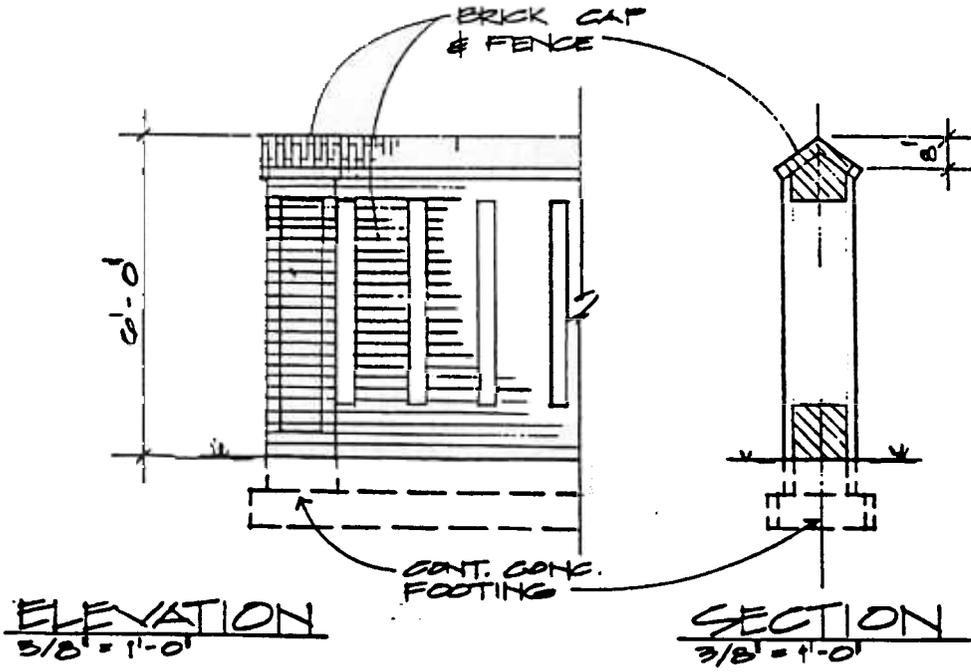
ELEVATION
3/8" = 1'-0"



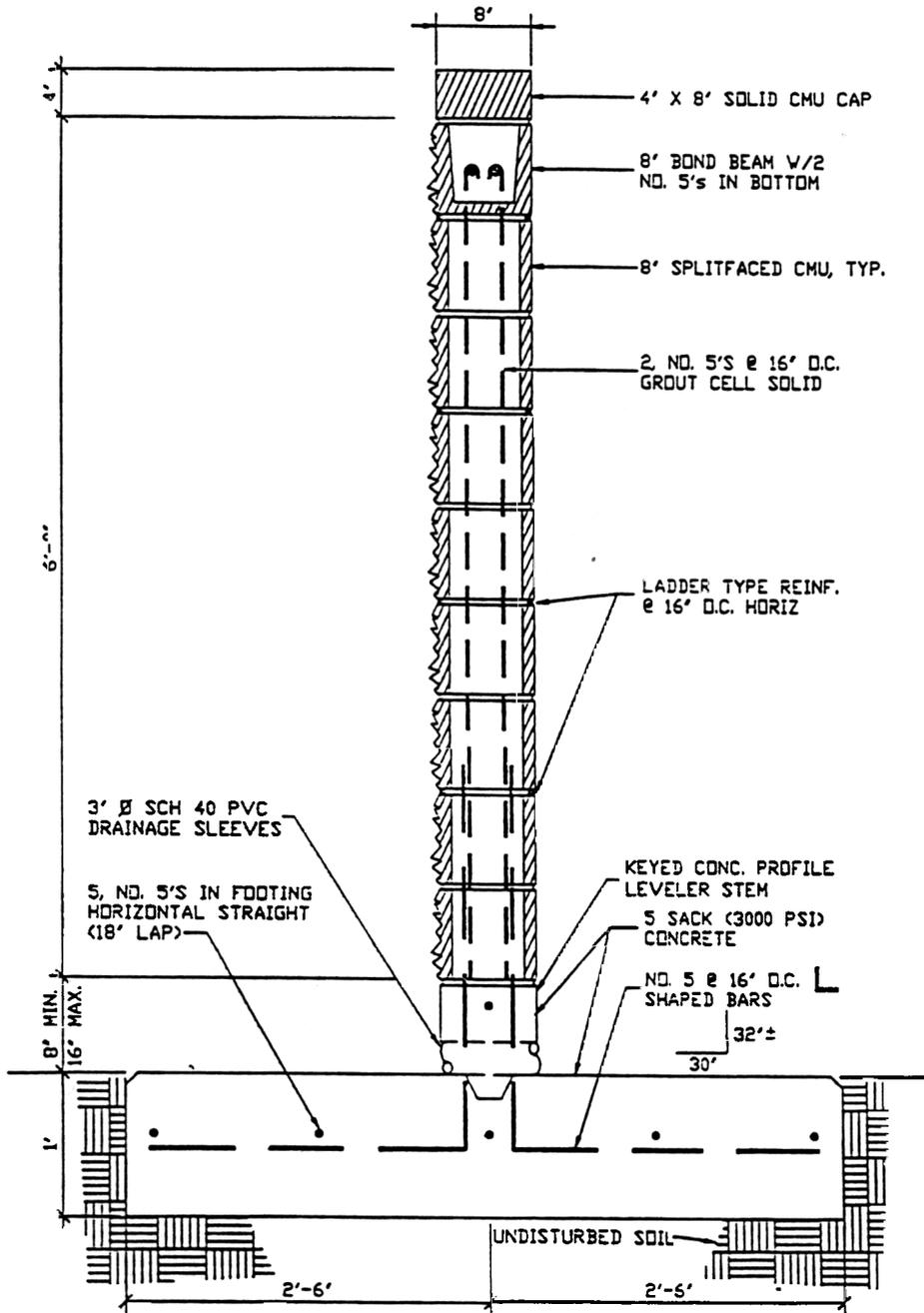
SECTION
3/8" = 1'-0"

FENCE TYPE 'C'

ARCHITECTURAL COMPATIBILITY REQUIREMENTS



FENCE TYPE D'

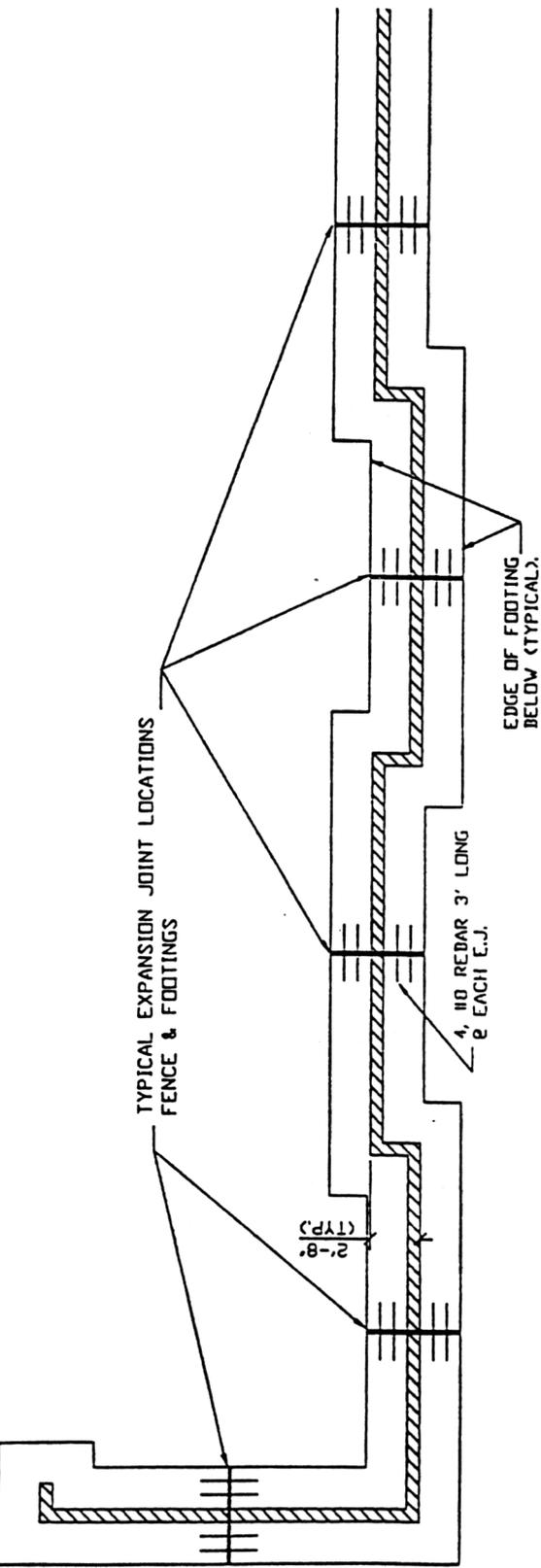


SECTION

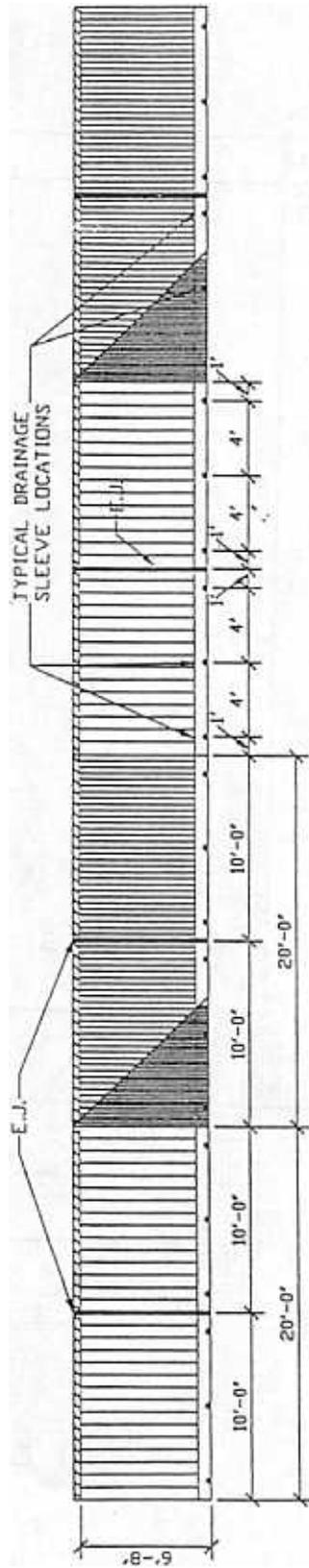
SCALE: 3/4" = 1'-0"

FENCE TYPE "E"

TYPICAL EXPANSION JOINT LOCATIONS
FENCE & FOOTINGS



PLAN
SCALE: 1" = 10'-0"



ELEVATION
SCALE: 1" = 10'-0"

FENCE TYPE E

**ARCHITECTURAL GUIDELINES - FENCES
NEW CONSTRUCTION**

Fence Type A

Fences and Compounds Adjacent to Buildings
Zone 1

Manufacturer:

Rohn
6718 West Plank Road
Peoria, IL 61656

Description

24" x 24" piers at 9'-9 5/8" o. c. with exterior insulation and finish system - to match the adjacent building structure. The fencing material is a metal slat system - Color: Charcoal (FSC 26044)

Fence Type B

Fences and Compounds in Industrial Area
Zone 1

Manufacturer:

Rohn
6718 West Plank Road
Peoria, IL 61656

Description

A metal fence system 8'-0" - 12'-0" high as required. The fencing material is a metal slat system - Color: Charcoal (FSC 26044). This fence type does not require piers.

Model Number

8 ft. hi. panels - PV8; 12 ft. hi. panels - PV12
8 ft. hi. posts - P4E11; 12 ft. hi. posts - P4E15

Fence Type C

Fences and Compounds Adjacent to Buildings
and Along Streets
Zone 2 and Zone 3

Description

24" x 24" piers at 12'-0" o. c. with brick and precast concrete cap - color of cap to match brick. Fencing material is a wood slat 1" x 6" cedar - unpainted and unfinished.

Fence Type D (Option)

Fences/Walls Adjacent to Buildings
Zone 2 and Zone 3

Description

An all brick fence/wall to be used for buildings requiring more ceremonial treatment. This fence type is an option and should be considered for use in more prominent areas of the base.

**ARCHITECTURAL GUIDELINES - FENCES
NEW CONSTRUCTION**

Fence Type E

Description

Fences/Walls Adjacent to Flightline
Zone 1

An all masonry fence/wall to be used as flightline security. This fence type may also be appropriate for use in more prominent areas of the base.

**ARCHITECTURAL GUIDELINES - FENCES
ALTERATION/RENOVATION/REPLACEMENT - EXISTING CONSTRUCTION**

Fence Type A

Fences and Compounds Adjacent to Buildings
Zone 1

Description

Fencing and compounds that need to be replaced should be replaced with Fence Type A. Portions of fence can be replaced in phases.

Fence Type B

Fences and Compounds in Industrial Area
Zone 1

Description

Fencing and compounds that need to be replaced should be replaced with Fence Type B. Portions of fence can be replaced in phases.

Fence Type C

Fences and Compounds Adjacent to Buildings
and Along Streets
Zone 2 and Zone 3

Description

Fencing and compounds that need to be replaced should be replaced with Fence Type C. Portions of fence can be replaced in phases.

Fence Type D

Fences/Walls Adjacent to Buildings
Zone 2 and Zone 3

Description

This fence/wall can replace existing, less ceremonial fencing/walls in prominent areas of the base.

Fence Type E

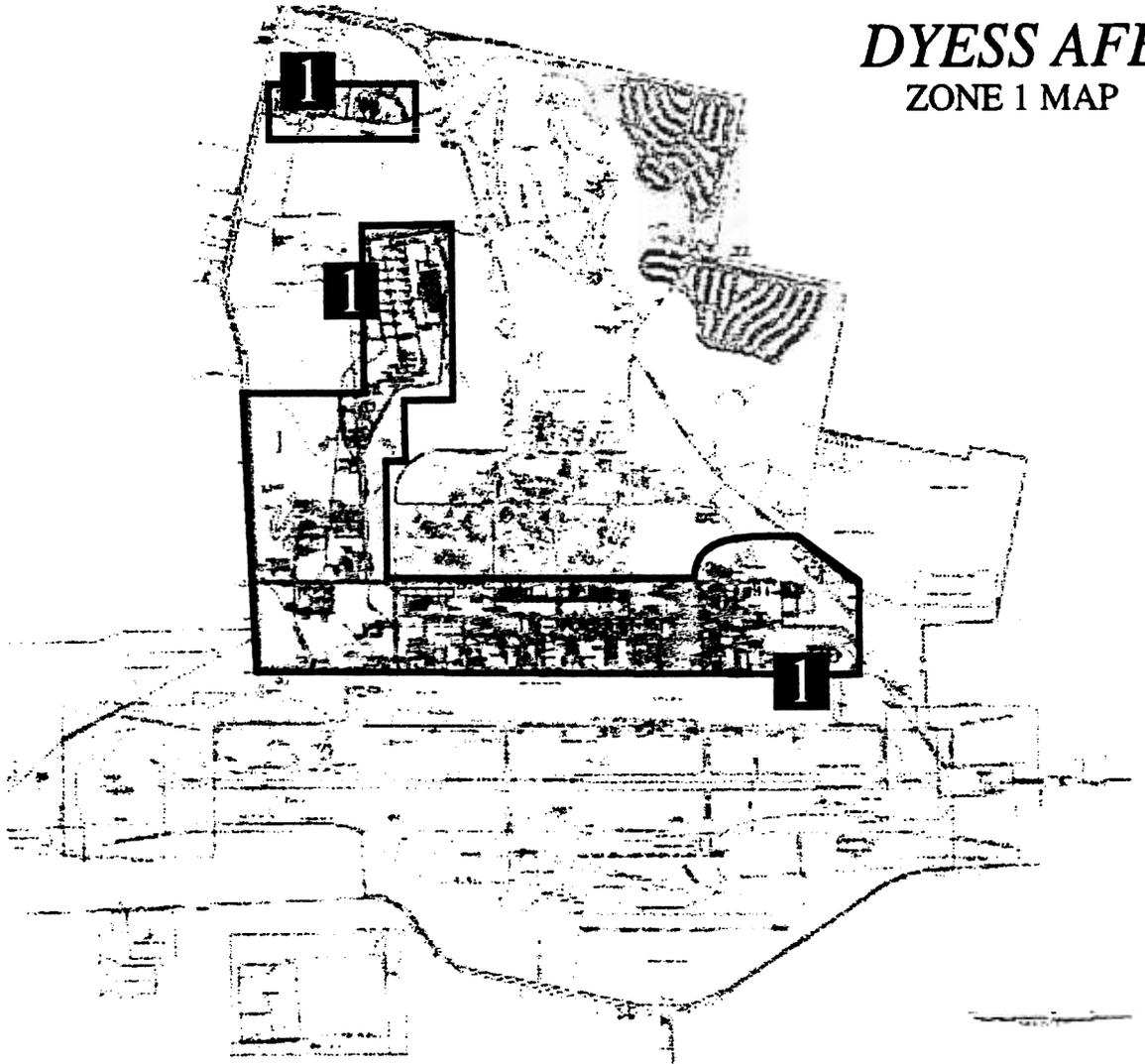
Fences/Walls Adjacent to Flightline
Zone 1

Description

This fence/wall can replace existing, less ceremonial fencing/walls along the flightline in other prominent areas of the base.



DYESS AFB
ZONE 1 MAP



ZONE 1
ARCHITECTURAL
COMPATIBILITY
REQUIREMENTS

ZONE 1 - ARCHITECTURAL COMPATIBILITY REQUIREMENTS
ROOFS - ZONE 1

Sloped-Shingled Roofs (Asphalt Shingles)

Shingle Color: Dark Brown

Manufacturer

Series

Color

Georgia-Pacific
133 Peachtree Street, N.E.
Atlanta, GA 30303

Summit

Acorn

GAF Corp.
1361 Alps Road
Wayne, NJ 07470

Timberline

Cedar Blend

Sloped-Non-Shingled
Standing Seam Metal Roof

Metal Roof Color:
Charcoal (FSC 26044)

Manufacturer

Color

MBCI
P.O. Box 10133
Lubbock, TX 79408

Charcoal Gray
(FSC 26044)
With Dexstar 850 Finish

Varco-Pruden Buildings
6000 Poplar Avenue
Memphis, TN 38119

SSR Patrician Bronze
(FSC 26044)
With KXL Kynar Finish

EXTERIOR WALL FINISH - ZONE 1

Exterior Insulation and Finish System

Color: Sandstone (FSC 23531)
w/Charcoal Trim (FSC 26044)

Manufacturer

Dryvit Systems, Inc.
P.O. Box 1014
One Energy Way
West Warwick, RI 02893

STO Industries, Inc.
P.O. Box 219
Rutland, VT 05701

ZONE 1 - ARCHITECTURAL COMPATIBILITY REQUIREMENTS

ROOFS - ZONE 1 (Cont'd)

Pre-Engineered Metal Building Wall Panels

Manufacturer

**MBCI
P.O. Box 10133
Lubbock, TX 79408**

**Varco-Pruden Buildings
6000 Poplar Avenue
Memphis, TN 38119**

Color

**Sandstone (FSC 23531)
w/Charcoal Trim (FSC 26044)**

**Sandstone (FSC 23531)
w/Charcoal Trim (FSC 26044)**

ZONE 1 - ARCHITECTURAL COMPATIBILITY REQUIREMENTS
WINDOWS - ZONE 1

Aluminum Environmental Control Windows (Thermally Broke Frames)

AAMA Classification
"HC" - Heavy Commercial
Finish - Architectural Class I
AA-M10C22A44 - Dark Bronze
Glass - Tempered
Exterior Lite - Tinted (Bronze)
Interior Lite - Clear
Aluminum Mesh Screens

OR

Baked On Electro-Statically Applied
Enamel Coating of 1.0 +/- .2 mils
Dry Film Thickness - Color Dark
Bronze (FSC 26044)

Manufacturer

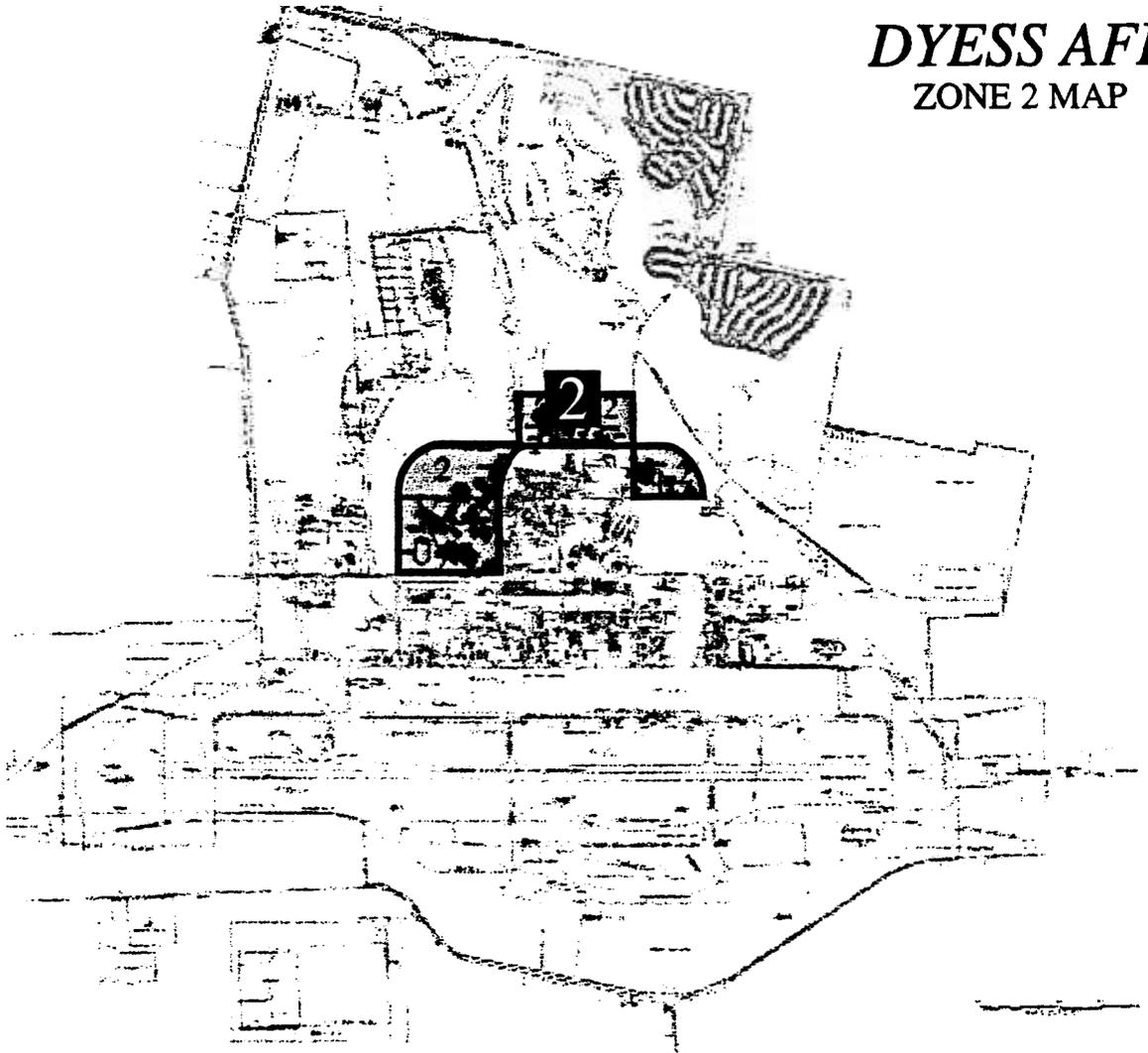
Traco
Cranberry Industrial Park
Box 805
Warrendale, PA 15095

Peerless Products, Inc.
3030 South 24th Street
Kansas City, KS 66106

Efco Corporation
P.O. Box 609
Monett, MO 65708



DYESS AFB
ZONE 2 MAP



ZONE 2
ARCHITECTURAL
COMPATIBILITY
REQUIREMENTS

ZONE 2 - ARCHITECTURAL COMPATIBILITY REQUIREMENTS

ROOFS - ZONE 2

Sloped-Shingled Roofs (Asphalt Shingles)

Shingle Color: Grey

Manufacturer

Series

Color

GAF Corporation
1361 Alps Road
Wayne, NJ 07470

Timberline

Slate Blend

Georgia Pacific
133 Peachtree Street, NE
Atlanta, GA 30303

Summit

Hearthstone Grey
(Subject to Approval)

Sloped/Shingled Roofs (Concrete Roof Tiles)

Shingle Color: Grey

Manufacturer

Series

Color

Lifetile
Boral Concrete Products, Inc.
San Antonio, TX
(512) 626-2771

Lifetile Shake 503

Charcoal Blend

Monier Roof Tile
P.O. Box 14307
1832 S. 51st Avenue
Phoenix, AZ 85063

Shake 400 Series

Charcoal

Sloped/Non-Shingled Standing Seam Metal Roof

Metal Roof Color: Charcoal (FSC26044)

Manufacturer

Color

MBCI
P.O. Box 10133
Lubbock, TX 79408

Charcoal Grey (FSC 26044)
with Dexstar 850 Finish

Varco-Pruden Buildings
6000 Poplar Avenue
Memphis, TN 38119

SSR Patrician Bronze
(FSC 26044)
with KXL Kynar Finish

ZONE 2 - ARCHITECTURAL COMPATIBILITY REQUIREMENTS
EXTERIOR WALL FINISH - ZONE 2

Brick - Cherokee Mingle Brick with Scotchlite Brown Trim (FSC 10091)

Manufacturer

Brick No./Name

Eureka Brick Co.
P.O. Box 379
Clarksville, AR 72830

#310-510-240-260
Velour Modular Face Brick
in Dyess Blend

Acme Brick Co.
P.O. Box 1802
Ft. Worth, TX 76101

Dyess Blend
Velour Modular Brick

Featherlite Building Products
2026 Oak Street
Abilene, TX 79608

Dyess Blend
Velour Modular Brick

ZONE 2 - ARCHITECTURAL COMPATIBILITY REQUIREMENTS

WINDOWS - ZONE 2

Aluminum Environmental Control Windows (Thermally Broke Frames)

AAMA Classification
"HC" - Heavy Commercial
Finish: Architectural Class I
AA-M10C22A44 - Dark Bronze
Glass - Tempered
Exterior Lite - Tinted (Bronze)
Interior Lite - Clear
Aluminum Mesh Screens

OR

Baked On Electro-statically
Applied Enamel Coating of
1.0 +/- .2 mils Dry Film
Thickness - Color - Dark Bronze
(FSC 26044)

Manufacturer

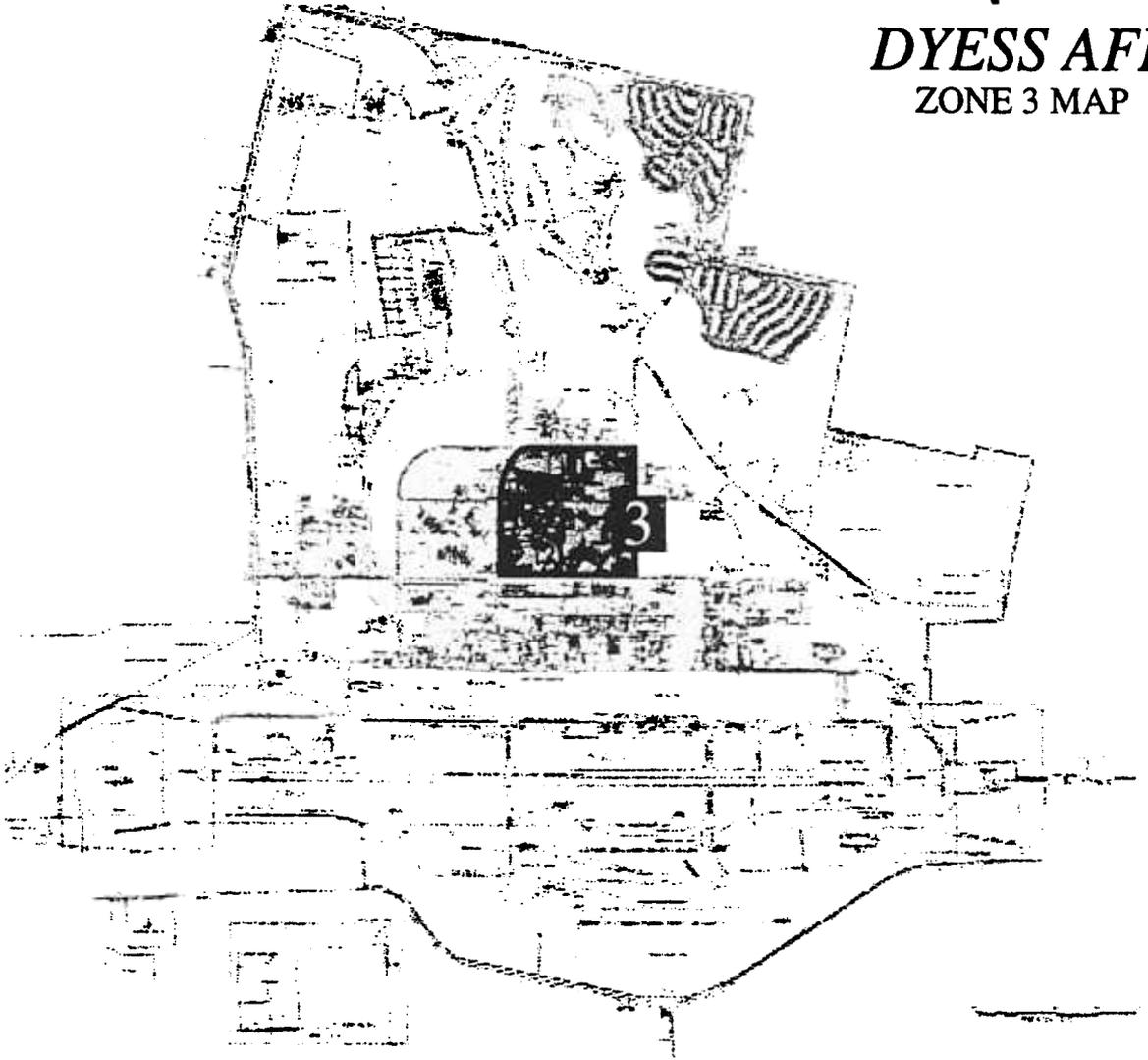
Traco
Cranberry Industrial Park
Box 805
Warrendole, PA 15095

Peerless Products, Inc.
3030 South 24th Street
Kansas City, KS 66106

Efco Corporation
P.O. Box 609
Monett, MO 65708



DYESS AFB
ZONE 3 MAP



ZONE 3
ARCHITECTURAL
COMPATIBILITY
REQUIREMENTS

ZONE 3 - ARCHITECTURAL COMPATIBILITY REQUIREMENTS

ROOFS - ZONE 3

Sloped-Shingled Roofs (Asphalt Shingles)

Shingle Color: Tan

Manufacturer

Series

Color

GAF Corporation
1361 Alps Road
Wayne, NJ 07470

Timberline

Cedar Blend

Georgia Pacific
133 Peachtree Street, NE
Atlanta, GA 30303

Summit

Acorn

Sloped/Shingled Roofs (Concrete Roof Tiles)

Shingle Color: Grey

Manufacturer

Series

Color

Lifetile
Boral Concrete Products, Inc.
San Antonio, TX
(512) 626-2771

Lifetile Shake 503

Charcoal Blend

Monier Roof Tile
P.O. Box 14307
1832 S. 51st Avenue
Phoenix, AZ 85063

Shake 400 Series

Charcoal

Sloped/Non-Shingled Standing Seam Metal Roof

Metal Roof Color: Charcoal (FSC 26044)

Manufacturer

Color

MBCI
P.O. Box 10133
Lubbock, TX 79408

Charcoal Grey (FSC 26044)
with Dexstar 850 Finish

Varco-Pruden Buildings
6000 Poplar Avenue
Memphis, TN 38119

SSR Patrician Bronze
(FSC 26044)
with KXL Kynar Finish

ZONE 3 - ARCHITECTURAL COMPATIBILITY REQUIREMENTS
EXTERIOR WALL FINISH - ZONE 3

Brick - Cherokee Mingle Brick with ScotchliteBrown Trim (FSC 10091)

Manufacturer

Brick No./Name

Eureka Brick Co.
P.O. Box 379
Clarksville, AR 72830

#310-510-240-260
Velour Modular Face Brick
in Dyess Blend

Acme Brick Co.
P.O. Box 1802
Ft. Worth, TX 76101

Dyess Blend
Velour Modular Blend

Featherlite Building Products
2026 Oak Street
Abilene, TX 79608

Dyess Blend
Velour Modular Blend

ZONE 3 - ARCHITECTURAL COMPATIBILITY REQUIREMENTS

WINDOWS - ZONE 3

Aluminum Environmental Control Windows (Thermally Broke Frames)

AAMA Classification

"HC" - Heavy Commercial

OR

Baked On Electro-statically

Applied Enamel Coating of

1.0 +/- .2 mils Dry Film

Thickness - Color - Dark Bronze

(FSC 26044)

Finish: Architectural Class I

AA-M10C22A44 - Dark Bronze

Glass - Tempered

Exterior Lite - Tinted (Bronze)

Interior Lite - Clear

Aluminum Mesh Screens

Manufacturer

Traco

Cranberry Industrial Park

Box 805

Warrendale, PA 15095

Peerless Products, Inc.

3030 South 24th Street

Kansas City, KS 66106

Efco Corporation

P.O. Box 609

Monett, MO 65708

ARCHITECTURAL COMPATIBILITY REQUIREMENTS

DOOR HARDWARE - ALL ZONES

In an effort to unify the appearance and quality of door hardware throughout the Base, the following hardware guidelines are established:

ANSI - American National Standards Institute

BHMA - Builder's Hardware Manufacturers Association

HINGES: EXTERIOR DOORS

Full Mortise Hinges - Heavy weight ball bearing

ANSI A5111 - Stainless Steel

Finish - BHMA 630/US32D - Satin Stainless Steel

HINGES: INTERIOR DOORS

(Use on high use doors& all doors with closures)

ANSI A5112 - Stainless Steel - Ball bearing

Finish - BHMA 630/US32D - Satin Stainless Steel

(Low use doors)

ANSI A5113 - Stainless Steel- Plain Bearing

Finish - BHMA 630/US32D - Satin Stainless Steel

Size hinges according to manufacturer's recommendations.

ARCHITECTURAL COMPATIBILITY REQUIREMENTS
DOOR HARDWARE

DOOR CLOSERS - INTERIOR & EXTERIOR DOORS

Finish: BHMA 689 - Sprayed Aluminum

Grade 1: Surface mounted
 Regular Arm Mount: C02011
 Parallel Arm Mount: C02021

Options: PT4C Closing force adjustment at least 50%
 PT4D Backcheck adjustment
 PT4G Built-in deadstop (exterior doors)
 PT4H Closing force adjustment through a range of size

GRADE 1 - EXIT DEVICES - INTERIOR & EXTERIOR DOORS

Finish: BHMA 630/US32D - Satin Stainless Steel

Typical single door (and pairs of doors with hollow metal frame mullion)

Type 1 (rim exit device) x F08 (key locks or unlocks lever)

Typical pair of doors with no mullion

Type 2 (vertical rod) x F01 (no trim) or F08 (key locks or unlocks lever)

LOCKSETS - INTERIOR & EXTERIOR DOORS

Finish: BHMA 630/US32D - Satin Stainless Steel

ARCHITECTURAL COMPATIBILITY REQUIREMENTS

DOOR HARDWARE.

BHMA Series 4000, Grade 1, knob trim, removable core function as required (see BHMA ANSI Functions F75-F93).

Lever handles to be provided at handicapped requirements.

All parts of lockset (i. e., strike, latchbolt) to match finish of knob/lever.

Miscellaneous Hardware: (Stops, Flushbolts, etc.) Provide in BHMA 630/US32D Satin Stainless Steel. BHMA 626/US26D Satin Chromium Plated is acceptable if item is not manufactured in BHMA 630/US32D.

KEYING: Lock cores shall be removable type keyed in sets or subsets as scheduled. Lock cores shall be seven (7) pin. Cores shall be pinned for an A-3 (.018 differential) type system. Lock cores shall be keyed to existing base master key system in sets or subsets in accordance with the approved schedule. Dyess' existing master key system is by "BEST". Locks shall be furnished with the manufacturer's standard construction cores and key system. Permanent cores and keys including a typewritten key codes/biting schedule shall be sent by the lock manufacturer directly to Dyess Air Force Base by registered mail or other approved means. The address is:

7 CES/CEOL2
Attn: Locksmith
718 Third Street
Dyess AFB TX 79607-1618

Keys for locks shall be stamped with change number and the inscription "U.S. Property - Do Not Duplicate." Dyess uses a "K" and "L" type keyway. Keys shall be supplied as follows:

Locks:	2 change keys each lock
Master keyed sets:	6 keys each set
Construction keys:	6 total
Blank keys:	one per lockset provided
A3 Key kit:	1 kit for each 100 locksets (or fraction thereof)

The keys shall be furnished to the Contracting Officer arranged in a container specifically designed for key control system storage in sets or subsets as scheduled.

Keying Schedule: Before any hardware is delivered, a proposed keying system schedule shall be prepared and submitted to the Contracting Officer for approval (GA). The lock manufacturer and/or their supplier must be furnished by the contractor with this project number, contract number, title, street address, and building number(s) before correct schedule can be developed. The base Locksmith shall be contacted (address above) to secure existing key codes/bitting if necessary to successfully master key new work under this contract.

Locksets and Latchsets: Locksets and latchsets shall meet ANSI A156.2, series 4000, grade 1, bored type with roses. Handles/levers shall be provided on required handicapped accessible doors only. Locksets and latchsets shall be capable of accepting "BEST" removable cores. Other hardware manufacturers ("FALCON") have recently successfully demonstrated full capabilities of providing totally and completely interchangeable cores (round top/unslotted) including pins, springs, etc., with Dyess' existing "BEST" system and can provide locksets and latchsets which accept same.

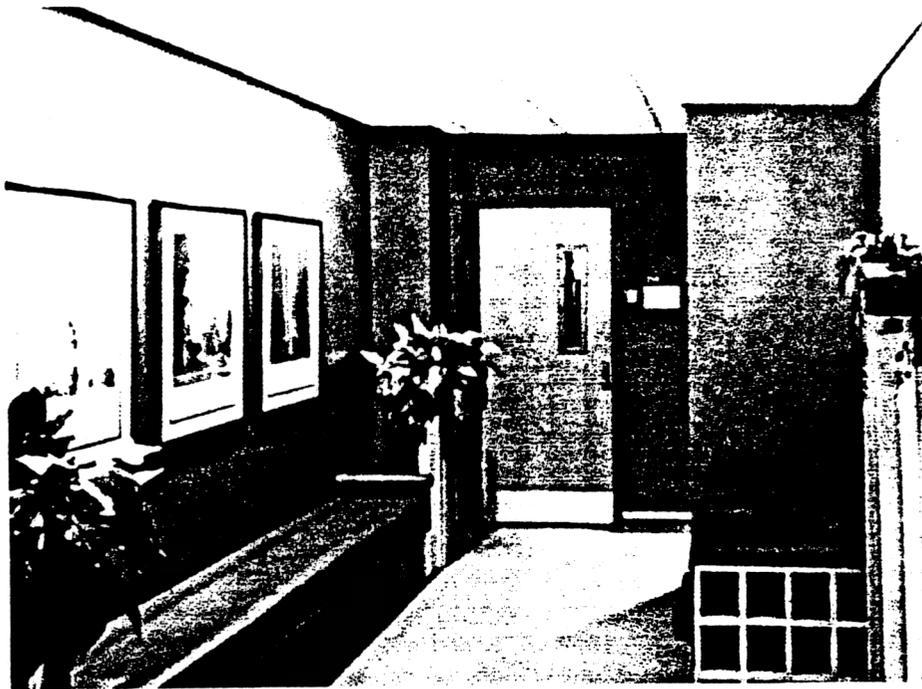
INTERIOR DESIGN GUIDELINES

Command standards require that all permanent finishes be in either brown tone or gray tone neutrals. These neutral shades can be from very light (such as off-white relating to the particular color tone) to a mid-range neutral of this same shade.

SPECIAL NOTE: It is important to choose true neutrals. A true neutral is one that can work in combination with almost any other color in the spectrum. A brown-tone neutral with a pink or yellow base will not work this way nor will a gray-tone neutral with a blue or green base.

Command standards allow non-permanent finishes to be any coloration appropriate to the facility. Most often these finishes will be in mid-range colorations. Very seldom would there be a use for pastel or very bright colors in our facilities. However, primary colors of red, yellow, blue and green may be used in youth centers, child care centers, or bowling centers.

While non-permanent finishes are allowed in various colors, it is highly recommended that in office and other work areas, wall surfaces also be kept in a neutral coloration. Light reflective surfaces are important to a productive work environment. Dark colors absorb light. In other words, for work areas, develop a neutral shell for the interior space with only the carpet, upholstery, and artwork providing the color accent.



INTERIOR DESIGN GUIDELINES

Vinyl Wallcovering should be Type II in most applications. Type I has very limited use in most of our facilities. A vertical texture will help hide seaming.

The use of vinyl wall covering is discouraged at Dyess AFB. Its use should be limited when no other alternative is economically justifiable.

Existing exposed concrete masonry unit (CMU) walls should be furred out with drywall and painted. The other alternative is to apply a cementitious wall coating over the CMU, and paint the coating - to match existing conditions.

Paint: Use a semi-gloss enamel for all painted surfaces. Flat paint is impossible to maintain in our facilities.

Laminates: Laminate surfaces are much more maintainable if the laminate has a flecked, speckled, mottled, textured, or granite look. Soiling and water spotting is not nearly so visible on these surfaces.

Ceilings: In almost all facilities, ceilings (whether painted or ceiling tile) are to be off-white to coordinate with the colortone of all walls. Textured ceiling tiles in two foot squares with a tegular edge are recommended. Bathroom ceilings shall be water-resistant gypsum board and shall be painted with semi-gloss enamel.

Wainscot and Chair Rail: Wainscot is not recommended in most areas. Dark paneling wainscot has the effect of visually reducing the size of small office spaces. In long hallways, wood panel wainscot has a railroading effect. A Type II heavy duty vinyl wallcovering will have a better effect. If paneling is required, cover one accent wall floor to ceiling. The purpose of chair rail is to protect wall surfaces from being marred by chair backs. Therefore, the chair back height must be considered to properly locate the chair rail. It may be stained or painted to coordinate with the other woodwork or doors. Wainscot and chair rail should be no more than 36" high in rooms and no more than 42" high in corridors. Heavy vinyl bumper guards may also be used to protect walls in corridors where needed. They too, should be in coordinating neutrals.

INTERIOR DESIGN GUIDELINES

TOILET PARTITIONS: Toilet partitions shall be ceiling hung, Style B (High impact impregnated plastic resin) as manufactured by:

Santana Products Company, Inc.
P.O. Box 2021
Scranton, PA 18301

Capitol Partitions, Inc.
668 Lofstand Lane
Rockville, MD 20850

Ryno Systems
101 Miles Parkway
Pell City, AL 35125

Vinyl/Rubber Base and Carpet Base: Use vinyl/rubber base in areas where the floor surfaces is vinyl composition tile (VCT) or rubber tile. Base is to be in a coordinating neutral to the floor surface, as near the same shade as possible. Do not use a dark color or accent color for the base. Use a four inch carpet base capped with a dark neutral vinyl/rubber carpet cap in carpeted areas. Use the same carpet for the base as meets the wall in the case of borders. When carpet tile is used for computer floors and areas with systems furniture, it will be necessary to use a vinyl/rubber base. Choose a neutral that will most closely relate to the carpet coloration or wall coloration. With carpet tile a straight base must be used (one without a cove foot) and installed first with the carpet tile butted up to it. In ceramic tile areas, if a base is used it will be a coordinating ceramic tile base.

Ceramic Tile: Use a mottled, flecked, or specked floor tile, if at all possible. Also, be sure to use a dark tone grout which coordinates with the floor tile to avoid a stained or soiled appearance. Tile banding accents or patterns are approved for walls and floors provided the accent is another neutral shade which coordinates with the dominate tile color.

Doors and Door Frames: Depending on the quality of the doors, they may be either stained or painted. If painted, they may be painted an accent color of mid-range hue. Hollow metal door frames are best painted a color close to the wall color or only a shade or two darker.

Wood Doors - Stain Light Oak
Metal Doors - Paint

INTERIOR DESIGN GUIDELINES

Window Blinds: Metal or vinyl blinds may be horizontal or vertical and are best in off-white or light neutrals. Vinyl blinds are to be used in areas of high moisture content. Dust is not as visible on the light colors as on the dark colors, and vertical blinds collect less dust than horizontal ones. Dark blinds that match the anodized finish of the window frames are acceptable, provided the windows are of reflective glass. If the windows are not of reflective glass, dark blinds will radiate a great deal of heat into the building rather than reflecting it as light or off-white blinds do.

Carpet: (See revised ACC Carpet Guidance - dated 7 Oct. 1997). In general, use mainly bold tweed nylon, level-loop carpet of at least 28 oz face weight. Bold tweed means yarns of several different colors, not various shades of the same color. Level-loop is the most hard wearing type of carpet, and bold tweed allows for several upholstery color coordinations in a facility using only one carpet color-way. Again, use a 4" carpet base capped with a vinyl/rubber, dark neutral carpet cap.

Dormitory Carpet: Carpet dormitories by using one carpet pattern per building with a different color-way per floor. Take care to ensure that carpet used in living areas is not the same carpet used in the work areas on base. Do not use drab, dull colors in living areas. Bedspreads and chair upholstery can be coordinated per floor to the carpet color-way. Draperies in these small living areas are best kept in neutral colorations to blend with the walls. This provides a neutral background for personal items of the occupants.

Carpet Borders: Carpet borders may be solid in color. They may be used with either carpet tile or roll goods. Be careful not to over-do borders. In corridors, a border width of 9" is about right. Install field carpet in rectangular shapes and allow border to fill an indentation such as doorways, drinking fountains, etc. Do not use borders in rooms where furniture will cover the border.

Systems/Pre-Wired Workstations/Modular Furniture: All panel fabrics, work surfaces, flipper doors, etc., shall be in either brown tone or gray tone neutrals. Only one type of systems furniture should be used per building in order to allow greater flexibility in reconfiguration as occupants, needs and requirements change and to provide continuity throughout the space. Systems furniture should be installed over carpet tiles. Removal and installation of new carpet in 12 foot widths becomes a major undertaking. A professional team must be hired to dismantle, store, then re-install the systems furniture. This is not efficient or cost effective. Carpet tile will allow for self-help replacement and ease of maneuvering under the systems furniture. Carpet tile will also accommodate flat wiring for electrical and communications under the carpet.

Any of the carpet alternatives may be used with Neutral Schemes I-III (which follow).

INTERIOR DESIGN GUIDELINES

NEUTRAL SCHEME I

All interior design options must be made from one scheme only.

All colors are from FSC595B.

PAINT:

Option 1:	Sherwin Williams color 1016	FS 23531
Option 2:	Sherwin Williams color 1017	FS 23617
Option 3:	Sherwin Williams color 1011	FS 27769

VINYL COVE BASE:

Roppe, Color: Light Gray 895

VINYL COMPOSITION TILE (VCT):

Option 1:	Tarket "Signals Collection" 3863
Option 2:	Forbo "Colorstyle" 4003
Option 3:	Armstrong "Companion Square" 51975 Multi Bisqu

VINYL WALLCOVERING:

Option 1:	Wolf Gordon "Canterbury" CBY 3-9153 Color: Oyster Wolf Gordon Wallcovering 33-00 47th Avenue Long Island City, NY 11101 97180 361-6611
Option 2:	Sherwin-Williams "Titus" SWC 1012 (Pearl)
Option 3:	Sherwin-Williams "Helicon" SWC 2709 (Coral Tower)

CERAMIC WALL TILE:

Option 1:	Dal-Tile K-1266 Tender Gray
Option 2:	American Olean 617 Silver Gray

INTERIOR DESIGN GUIDELINES

NEUTRAL SCHEME I (Cont'd)

FLOOR TILE:

- Option 1: Dal-Tile DK-144 Mot. Light Gray
- Option 2: American Olean A32 Sterling Silver

PLASTIC LAMINATE:

- Option 1: Wilsonart "White Nebula" 4621-8
- Option 2: Formica "Haze Papercraft" 660
- Option 3: Nevamar "Gray Matrix" MR-6-1SK
Stipple Finish

INTERIOR DESIGN GUIDELINES

NEUTRAL SCHEME II

PAINT:

Option 1:	Sherwin Williams color 1005	FS 36595
Option 2:	Sherwin Williams color 1010	FS 36622
Option 3:	Sherwin Williams color 1912	FS 35630

VINYL COVE BASE:

Armstrong, Color: Mineral 14137

VINYL COMPOSITION TILE (VCT):

Option 1:	Tarkett "Collage" Thru-Chip 5214
Option 2:	Forbo "Colorstyle" 4001
Option 3:	Armstrong "Companion Square" 51977 Kaleidoscope White

VINYL WALLCOVERING:

Option 1:	Sherwin Williams "Bismark" SWC 2611 (Granite)
Option 2:	Sherwin Williams "Zeno" SWC 1604 (Polar Bear)

CERAMIC WALL TILE:

Option 1:	Dal-Tile K-1276 CT Ice Gray
Option 2:	Dal-Tile K-1201 Kohler CT White

FLOOR TILE:

Option 1:	Dal-Tile DK-114 Mot. Light Gray
Option 2:	American Olean Egyptstones C17 Empire Gray

PLASTIC LAMINATE:

Option 1:	Wilsonart "Pearl Sand" 4604-50
Option 2:	Formica "Fogdust" 1816-75 Quarry Finish
Option 3:	Nevamar "Black Vortex" VR-6-1T Textured

INTERIOR DESIGN GUIDELINES

NEUTRAL SCHEME III

PAINT:

Option 1:	Sherwin Williams color 1156	FS 26408
Option 2:	Sherwin Williams color 1023	FS 26632
Option 3:	Sherwin Williams color 1024	FS 25630

VINYL COVE BASE:

Armstrong Color: Ash Gray

VINYL COMPOSITION TILE (VCT):

Option 1:	Tarkett "Basics" Architectural Thru-Chip 3037
Option 2:	Tarkett "Collage" Thru-Chip 5211

VINYL WALLCOVERING:

Option 1:	Sherwin Williams "Titus" SWC 1006 (Mocha)
Option 2:	Wolf-Gordon "Canterbury" CBY3-9150 Color: Natural Wolf-Gordon Wallcoverings 33-00 47th Avenue Long Island City, NY 11101 (718) 361-6611
Option 3:	Sherwin Williams "Jayme" SWC 2304 (Prarie)

CERAMIC WALL TILE:

Option 1:	Dal-Tile XX-25 CT. Antique White
Option 2:	American Olean 365 CR. White

FLOOR TILE:

Option 1:	Dal-Tile DK-325 Marble (1)
Option 2:	American Olean C11 Alabaster

PLASTIC LAMINATE:

Option 1:	Nevamar MR-2-5T
Option 2:	Nevamar MR-6-8T
Option 3:	Formica "Stone Dust" 2493

INTERIOR DESIGN GUIDELINES

In the process of making carpet selections, it is the intent of this guideline to the carpet meet the specifications that follow. Selection can be made from other manufacturers than those listed. The GSA numbers listed below are not mandatory and are provided only as a source of information.

CARPET ALTERNATIVE I MANUFACTURER:

J & J Industries
J & J Drive
P. O. Box 1287
Dalton, GA 30722-1287
(404) 241-4585
(800) 241-4585

STYLE: Festival
PATTERN: 2830
COLOR: 518 Imperial
PILE: Antron Legacy Nylon by Dupont
GAUGE: 1/10 in.
PILE HEIGHT: 0.187 inch
FACE WEIGHT: 32 oz.
BACKING: Synthetic
WIDTH: 12 Ft.
GSA CONTRACT: GS-00F-8454A
\$11.55 per sq. yd.

CARPET ALTERNATIVE II MANUFACTURER:

Lees Commercial Carpets
A Division of Burlington Industries, Inc.
3300 W. Friendly Avenue
Box 26027
Greensboro, NC 27420-6027
(800) 523-5647

STYLE: Attribute
PATTERN: DL456
COLOR: 407 Juniper Berry
PILE: Antron Legacy BCF Nylon by Dupont
GAUGE: 1/10 in.
PILE HEIGHT: 0.187 inch
FACE WEIGHT: 26 oz.
BACKING CONSTRUCTION:
Thermobond HB
PRIMARY BACKING:
Reinforced Woven Polypropylene
SECONDARY BACKING:
Reinforced Thermoplastic Composite
WIDTH: 18" x 18" Tiles
GSA CONTRACT: GS-27F-8455A
\$18.10 per sq. yd.

INTERIOR DESIGN GUIDELINES

CARPET ALTERNATIVE III

MANUFACTURER:

Wellco Business Carpet
A Division of Mannington Carpets Inc.
P. O. Box 12281
Calhoun, GA 30703-7004
(404) 629-7301
(800) 241-2262

STYLE: Homage
COLOR: Shadow Box SHBO
PILE: Antron Legacy Nylon by Dupont
GAUGE: 1/10 in.
PILE HEIGHT: 0.187 inch
FACE WEIGHT: 32 oz.
PRIMARY BACKING: 100% Polypropylene
SECONDARY BACKING: Action Bac
WIDTH: 12 Ft.
GSA CONTRACT: GS-27F-8442A
\$16.61 per sq. yd

CARPET ALTERNATIVE IV

MANUFACTURER:

Collins & Aikman
1519-B Hi-Line Drive
Dallas, TX 75207
(214) 749-0663

STYLE: Voyager
COLOR: 20606 Mars
PILE: 25% Antron Legacy by Dupont
75% Solution Dyed Nylon by Dupont
GAUGE: 1/13 in.
PILE HEIGHT: 0.117 inch
FACE WEIGHT: 20 oz.
GSA CONTRACT: GS-00F-8435A
\$15.86 per sq. yd.

CARPET ALTERNATIVE V

MANUFACTURER:

J & J Industries
J & J Drive
P. O. Box 1287
Dalton, GA 30722-1287
(404) 278-4454
(800) 241-4585

STYLE: Festival
PATTERN: 2830
COLOR: 342 Hemlock
PILE: Antron Legacy BCF Nylon by Dupont
GAUGE: 1/10 in.
PILE HEIGHT: 0.187 inch
FACE WEIGHT: 32 oz.
BACKING: Synthetic
WIDTH: 12 ft.
GSA CONTRACT: GS-00F-8454A
\$11.55 per sq. yd.

CARPET ALTERNATIVE VI

MANUFACTURER:

Bentley Mills, Inc.
14641 East Don Julian Road
City of Industry, CA 91746
(800) 423-4709

STYLE: Wallesey Loop
COLOR: WL30B-6205 Cross Hills
PILE: Ultron VIP Continuous Filament
Nylon
GAUGE: 1/10 in.
PILE HEIGHT: 0.187 inch
FACE WEIGHT: 30 oz.
BACKING: Polypropylene
WIDTH: 6 ft. Roll or 18" x 18" Tiles
GSA CONTRACT: GS-00F-0011A
\$11.55 per sq. yd. (Roll)
\$23.56 per sq. yd. (Tiles)

SIGNAGE DESIGN GUIDELINES

Signage requirements for Dyess AFB must adhere to the specifications established in AFP 88-40. The designer shall review AFP 88-40 in its entirety and coordinate with the Dyess sign planner.

All proposals for interior and exterior signage must be submitted for review and must receive approval from 7 CES at Dyess.

Locate all proposed exterior signs on a site plan of the Base, in accordance with distance and placement guidelines.

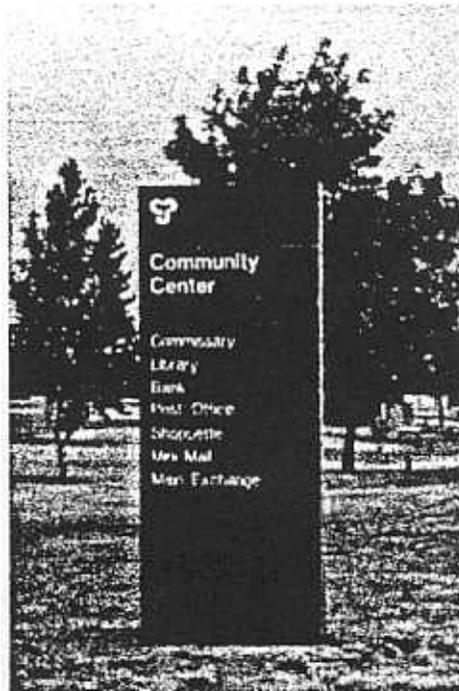
Illustrate on the site plan the sequence of information to be conveyed. Precisely define, locate, and key to all directional and regulatory information.

Provide signs only where a need exists.

Eliminate unnecessary or conflicting signs.

Ensure that the placement of signs relates to their function.

Sign standards should include sign size, location, shape, typeface, symbols, colors, materials, and mounting details.



BASE SIGNS AND RESERVED PARKING POLICY - DYESS AFB

1. The following delineates ACC policies on signs as outlined in ACC Reg 88-1 and ACC Special Interest Item 93-9. *Item number 4 is a base policy and is not included in any ACC policy or regulation.
2. Free-standing, post-mounted organizational/building identification signs are discouraged. Organizational/building identification signs and building numbers have been replaced with *street* address ~~numbers~~ / *facility numbers*.
 - a. Headquarters buildings (Wing, Group) may use monument-type signs or building-mounted, nonferrous letters affixed to the buildings.
 - b. Commercial activities (billeting, exchanges, commissary, etc.) may also use signs mounted on their building. Most already comply with the policy.
 - c. Facilities frequently visited by newly assigned personnel or off-base visitors (billeting, dental clinic, dining facilities, housing office, field training, contracting, personnel, etc.) may use building-mounted, nonferrous letters.
 - d. Administrative/office buildings will have only their street address number displayed on the building at the main entry. The organization may be displayed on the main entrance door using white letters.
 - e. Unoccupied buildings, such as storage buildings, will be identified with their street address only.
3. Main entrance door markings may be completed self-help. White letters can be obtained through private vendors. Do not list individual names (commanders, first sergeants, building managers, etc.) or operating hours. An example of properly marked doors can be seen at the CES Operations Flight (718 Third St.).
4. *Finally, reserved parking spaces are allowed for commanders, first sergeants, colonels, and civilian equivalents at their duty location. Commanders may request (through AF Form 332, Work Request) a limited number of spaces at their buildings for handicapped, visitors, customers, GMV's Gen/Cols, Chief Master Sergeants, etc. All requests will be reviewed/approved on an individual basis by the base civil engineer, who is delegated as the approval authority. Unauthorized reserved parking signs or "home made" reserved parking signs and markings should be removed.

SIGNAGE DESIGN GUIDELINES

INTERIOR SIGNS

The graphics and interior signage shall be provided as a total system and shall be furnished and installed in accordance with AFP 88-40.

Signs shall be clear matte acrylic plastic that is sub-surface printed with both the message and background color in sizes indicated. With more than one door to a space, door numbers shall be alpha-numeric, i.e. 110A, 110B, 110C. Restroom door signs shall be MEN and WOMEN graphic symbols, centered and mounted on the door with the top edge five feet six inches above finished floor.

Height and location of all the signs shall be in accordance with AFP 88-40 unless otherwise specified. Signs shall be mounted using either vinyl tape or adhesive as recommended by the manufacturer for the specific application. Adhesive shall cover the entire back surface of the sign panels. Signs shall be mounted in place after all other interior work in the immediate vicinity has been completed.

SIGNAGE DESIGN GUIDELINES

SIGN TYPE BB2: INTERIOR

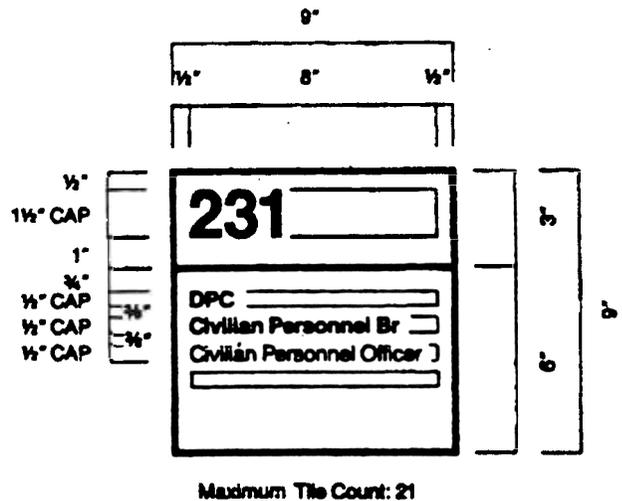
Colors: Header Panel - White numbers on standard brown background;
Insert Panel - black letters on white background

Dimensions: 9" x 9"

Message: Room number - Helvetica Medium, 1 1/2" capital letter height, flush left.

Secondary Information - Upper and lower case Helvetica regular, 1/2" capital letter height, flush left. The insert area for the sign will accommodate four lines with a maximum of 21 tiles or characters per line.

Office Identification Type BB2



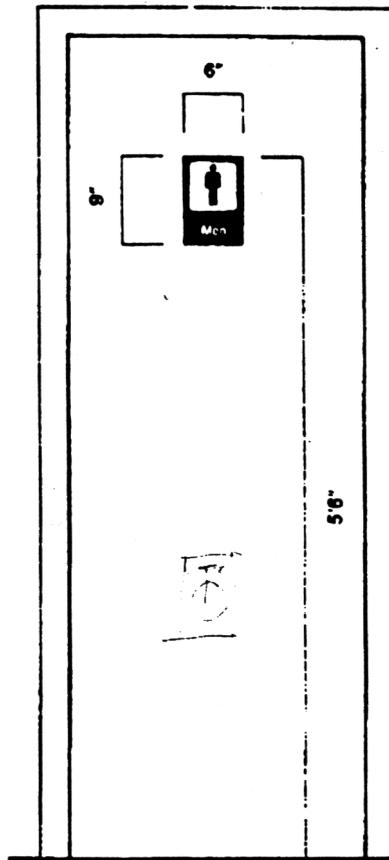
SIGNAGE DESIGN GUIDELINES

SIGN TYPE BB7: INTERIOR

Colors: Symbols - Black symbol with white 5" x 5" background on 6" x 9" standard brown background.

Dimensions: 9" x 6"

Message: Service name - Helvetica Medium upper and lower case, 1" capital letter height, centered. The message line will accommodate a maximum of 7 tiles.



Service Identification
Type BB7

SIGNAGE DESIGN GUIDELINES

HANDICAPPED SIGNS: INTERIOR

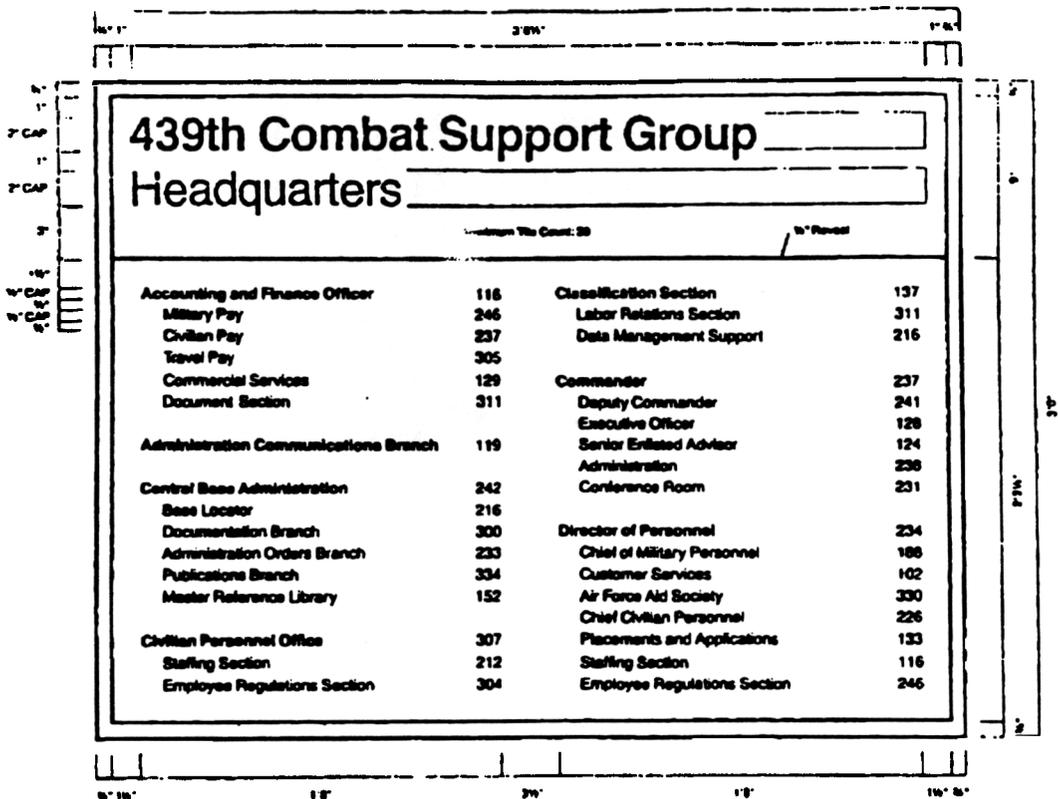
The international wheelchair symbol for the handicapped shall be white on a field of brown. Signs shall be 4 inches x 4 inches in size with the symbol centered. One sign shall be required at each appropriate restroom (centered on the door with the bottom edge 32 inches above the finished floor).



SIGNAGE DESIGN GUIDELINES

DIRECTORY LETTER BOARD: INTERIOR

The directory letter board shall be sliding glass panel style of the type AA2 as shown in AFP 88-40. Frames shall be constructed of 6063 T5 extruded aluminum alloy. Frames shall be secured to wall by means of concealed screws or bolt hangers. Panel shall have precision grooves every 1/4 inch to accept changeable letters. Grooved background shall be vinyl brown. Changeable letters and numbers shall be 1/2 inch Helvetica white molded plastic. Assortment of letters shall include three entire alphabets with emphasis on most used characters and three sets of numbers to 100. Glass is specified in Section: Glass and Glazing. Directories shall be complete with all hardware including tamper-proof cylinder lock. All aluminum and hardware shall have dark bronze anodized finish.



FACILITY DESIGN

As established by ACC sign policy,

AFP 88-40 users of this Architectural and Landscape Compatibility Requirements Guideline are to verify that ACC sign policy, AFP 88-40 is the current edition.

EXTERIOR SIGNS

This publication establishes policy for all exterior signs used on ACC installations. Its purpose is to manage the number of signs on ACC installations and to ensure attractive, professional, well-maintained, and uniform sign standards throughout the installation. Proper use of signs has a major effect on the appearance of our bases and will professionally communicate direction and location of those functions and activities which truly warrant identification. This publication applies to all ACC installations and units. It is applicable to the Air National Guard (ANG) when published in the NGR (AF) 0-2. This publication also applies to US Air Force Reserve (USAFR) units. ACC-gained ANG and USAFR units are encouraged to comply with this publication when possible.

SUMMARY OF CHANGES

This regulation requires each installation to manage the number of signs and to adopt/ensure uniform sign standards across the base. It does away with building number signs and implements street addressing. It limits the number of building/organization identification signs to one except for commercial service facilities and provides guidelines on the type of sign to be used. Under this regulation, pressure sensitive lettering should be used on glass entry ways to identify most buildings. The number of freestanding signs will be held to an absolute minimum and will be designed in accordance with AFP 88-40, Sign Standards.

1. General

The number of signs on each installation will be held to the minimum required for identification and customer service. Color policy for individual lettering attached to buildings, structures, monuments, or entry way glass is white, beige, or metallic (brass, aluminum, bronze, etc.). Color policy for other types of exterior signs is white letters on brown background and brown posts with exception of signs relating to safety and governed by national standards applicable to the USAF. Such exceptions include traffic control signs governed by the Manual of Uniform Traffic Control Devices (MUTCD) and signs governed by OSHA. Examples include regulatory and warning traffic control signs (speed limit signs, stop signs, yield signs, etc.) and hazard/danger signs required by OSHA. Such special signs mandated by national standards must be of the required colors and design. Earth tone is not allowed. All signs regardless of color shall be of the required size, attractive, well-maintained, and professional in appearance. Use AFP 88-40 for sign guidance except that color shall be white letters on brown background and posts shall be brown.

2. Materials

a. Construction/Mounting Materials

Materials utilized should consider life cycle cost of the sign. Typically, aluminum or galvanized steel and nonferrous materials should be used for sign stock and hardware to resist weathering and prevent rust streaking. When wood stock is used, it should be treated with a preservative in accordance with American Wood Preservers Bureau standards.

b. Shields

HQACC will consolidate base requirements and order MAJCOM shields for exterior signs twice per year. See AFR 6-1/ACC Sup. 1. Bases will submit their MAJCOM shield requirements to ACC CES/ESPD by 15 July and 15 January. The following information will be provided with the order:

- (1) Quantity of shields by size
- (2) Point of contact and phone number.
- (3) Shipping address including building number.
- (4) Receiving point of contact if different from b(2) above.

3. Sign Standards

Each installation shall adopt standards for each type sign used to ensure uniformity throughout the installation. Attention to detail is essential for an attractive and uniform sign program that portrays a professional image. Poor quality of unprofessional signs, including stenciled signs, are unacceptable.

4. ACC Tenant Units

ACC units at a base of another command are encouraged to follow this regulation as much as possible.

5. Sign Definitives

HQ ACC/CE maintains and updates ACC definitive designs for various exterior signs. Designs are available for base entrance/monument type signs, base marquee signs, and street name signs. Contact ACC CES/ESPD to request sign definitives. Sign definitives are for guidance. Conservative signs showing regional influence are acceptable.

6. Base Entrance Signs

Main base entrances provide ACC visitors with their first impression. Entrance signs should portray a high professional image of the installation, mission, and command. Typical entrance signs would be monument mounted and include shields conveying the mission and command. An ACC base entrance sign definitive is available.

7. Base Marquee Sign

Use of a marquee sign just inside Bases main gates is an effective way to welcome distinguished visitors and to announce coming events. An ACC definitive marquee sign is available.

8. Traffic Control Signs

a. Warning and Regulatory Traffic Control Signs

These traffic control signs shall be as specified in the Manual of Uniform Traffic Control Devices (MUTCD). Reflectivity requirements for traffic control signs are provided in the MUTCD. Colors adopted by the MUTCD for these special signs are mandatory. Earth tone is not allowed.

b. Directional Signs

Directional signs should display only those places frequently used by off-base visitors (hospital, billeting, clubs, etc.). Places generally used only by the base population should not be identified on directional signs (library, bowling alley, gym, exchange, bank, etc.). Directional signs should have no more than four entries displayed. Do not place directional signs near organizational or building identification signs unless absolutely necessary. Use AFP 88-40 Directional Sign Type D2 to design these signs, except that color shall be white letters on brown background and posts shall be brown.

c. Street Name Signs

ACC color policy for street name signs is brown background with white letters and brown posts. Use ACC shields on street name signs. An ACC definitive for street name signs is available.

9. Organization/Building Identification Signs

Only one sign may be used per building except for customer service facilities such as CBPO's, TMO's, etc. Commander and first sergeant names will not be included. These signs will include the street address number. ^{ACC} Building numbers will not be posted on buildings or signs. ~~Building number signs should be removed as soon as practical after street addresses are posted.~~ Preferred types of signs include pressure sensitive white, beige, or metallic colored (brass, aluminum, bronze, etc.) letters affixed to entry way glass; individual white, beige, or metallic colored nonferrous letters attached to the walls/structure; monument mounted signs with white or metallic colored letters; and sign types typical of individual commercial activities. ACC policy discourages the use of freestanding post-mounted signs due to their high cost of construction and maintenance. Use previously described sign types when possible. If post-mounted signs are used, design them in accordance with AFP 88-40, Military Facility Type B2 or B3, except use white letters on brown background and brown posts. When using Type B2 signs with shields, the only shields that may be used are the ACC and wing shields. When using Type B3 sign, show street address in lower left corner as shown for Type B2. Use the following as a guide to select the appropriate sign:

a. Headquarters Buildings (MAJCOM, NAF, Wing, Group, etc.)

These buildings may be identified with monument type signs or building mounted nonferrous letters affixed to the building structure. These signs should be held to a minimum. Not all headquarters or prestigious locations need such signs. The decision to use such signs should be approved by the installation commander.

b. Commercial Activities (Billeting, Libraries, Exchange, Commissary, Self-Help Stores, Snack Bars, etc.)

These typically use building mounted signs or individual letters as is their custom, except that AAFES signs and logo will be beige and brown.

c. Administrative/Offices

Signs for these buildings help direct a limited number of people to offices or functions. The great majority of the buildings on an installation fall into this category. First, seriously consider the need for any signage. Where signs are needed, use pressure sensitive lettering on the entrance glass at the main entry when possible.

Such lettering should show the organization (example: HQ ACC/Operations) and the street address (number only). As a guide, use letters 1 inch tall per 25 feet of viewing distance to determine the maximum size. From this, a standard can be established based on average door size and average view distance. Helvetica letter style is recommended. The letter type and style shall be as uniform as possible throughout the installation. Use white, beige, or metallic colored letters for maximum visibility and contrast.

d. Obscure Buildings

Obscure buildings such as well houses, sewage lift stations, etc., should be identified by no more than a street address.

e. Historical Buildings

Historical buildings are a special category of building. These buildings require preservation. Avoid attaching signs to these buildings so as not to deface the structure. Pressure sensitive letters may be used on entrance glass, or small freestanding signs may be constructed to match the facility.

10. Water/POL Tanks

Shields may be included on prominent tanks in high visibility areas. Tanks in low visibility areas should simply be painted in earth tone colors.

11. Other

AFP 88-40 provides additional details on signs. Use of these standards is optional but will not override policy in this regulation. When AFP 88-40 signs are selected, use white letters on brown background in lieu of white letters on blue background and use brown posts.

SIGNAGE DESIGN GUIDELINES

EXTERIOR SIGNS

The graphics and exterior signage shall be provided as a total system and shall be furnished and installed in accordance with AFP 88-40.

EXTERIOR WALL MOUNTED LETTERS:

Letters shall be of 3/4" thick cast aluminum. Threaded studs at least 1/4" thick in diameter, secured in quick setting mortar, shall be used for concealed anchorage. Letters shall be projected 1/8 inch from the building line by stud spacer sleeves. Letters, studs, and sleeves shall be of the same material.

Color: Standard Brown.

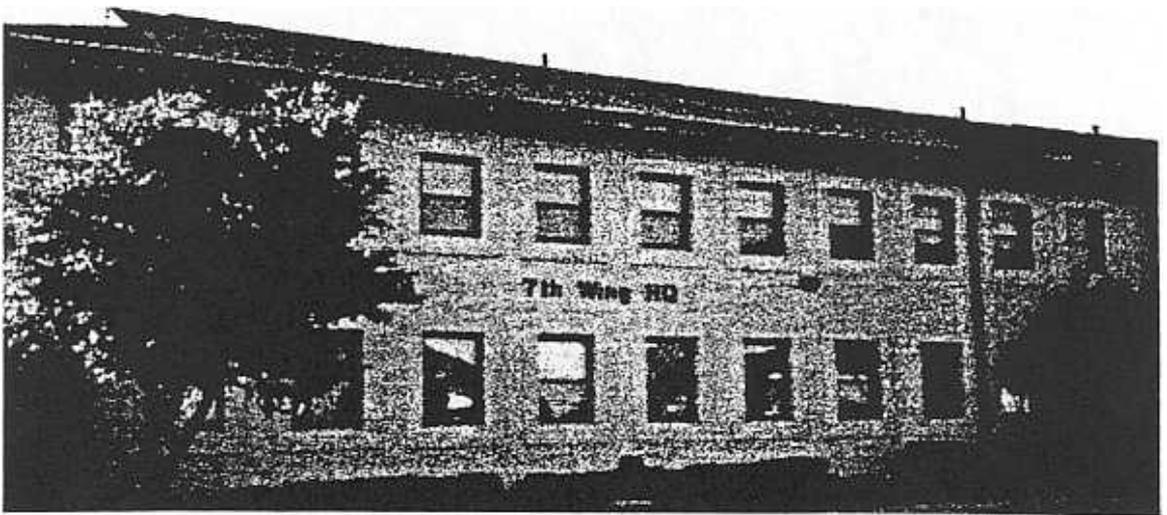
Type Face: Helvetica Medium

Letter Height: A minimum 12" capital letter height is specified for typical one and two story administrative buildings. Larger letters are shown on larger buildings. Three principal sizes are used:

12" cap height

18" cap height

24" cap height

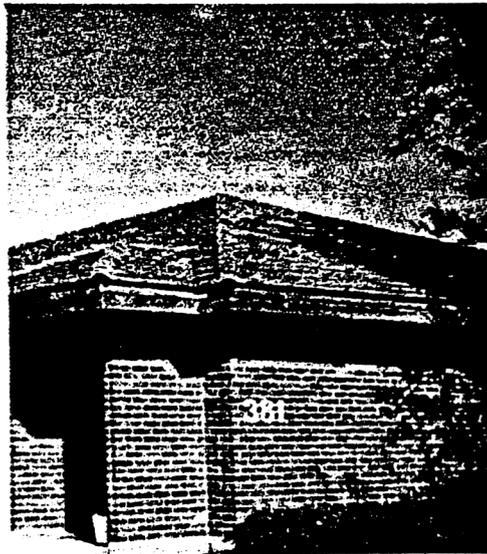
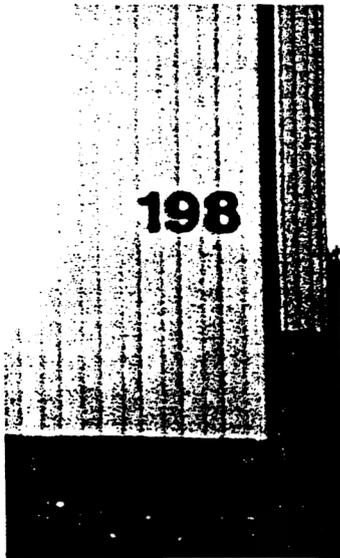


SIGNAGE DESIGN GUIDELINES
BUILDING ADDRESSES: EXTERIOR

12" Helvetica letter mounted at 6' -0" above grade to the centerline of the letter.

Colors: Letters to be Sandstone color (FSC 33531) when mounted on brick and letters to be brown/black (FSC 26044) when mounted on exterior finish insulation or on pre-engineered metal buildings.

All other signage mounted on the building must receive approval from 7 CES at Dyess.



SIGNAGE DESIGN GUIDELINES

EXTERIOR FREESTANDING SIGN:

Type B2 as shown in AFP 88-40 will be used to identify military activities and facilities.

Colors: White reflective letters and numbers on standard brown baked on enamel back ground.

Dimensions: 3' x 3' -6"

Message: Unit Name - upper and lower case Helvetica Medium, 3" capital letter height, flush left. Secondary Information: Upper and lower case Helvetica Regular, 3" capital letter height, flush left. The message area will accommodate three lines with a maximum line length of 17 tiles or characters per line.

Number: Building Number - Helvetica Medium, 3" numbers, flush left.

Emblem: Authorized organizational emblem 6" x 6", upper left corner.

Rules: 1/8" thick white tape.



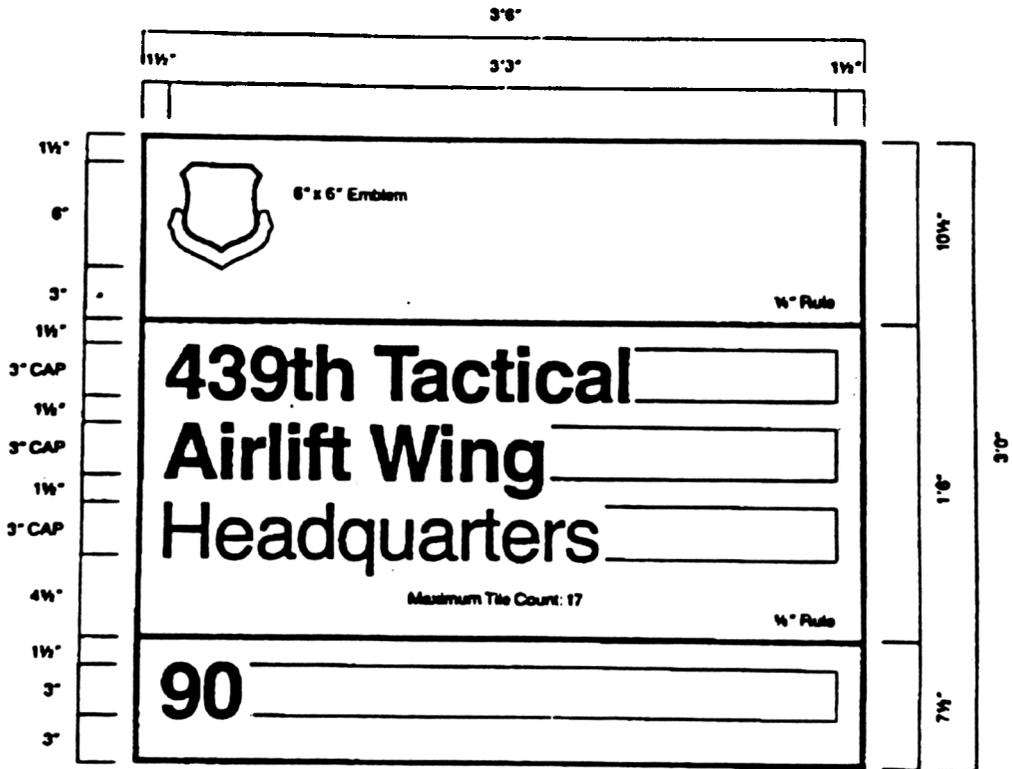
SIGNAGE DESIGN GUIDELINES

PANELS FOR SIGN TYPE B-2: EXTERIOR

Two (2) identical panels 3' -6" x 3' -0" will be installed back-to-back as shown in detail S1, Page A-7, AFR 88-40. The panels shall be 1/8 inch aluminum sheeting (6061-T6 alloy with mil finish in accordance with ASTM-B209).

POSTS FOR SIGN TYPE B-2: EXTERIOR

Post shall be extruded 3" x 3" x 1/8" aluminum (6061-T6 alloy with mil finish) tubes; finish shall be brown semi-gloss baked on enamel. Posts shall be fabricated and erected as detailed in AFP 88-40; Page A-7.



EXTERIOR LIGHTING DESIGN GUIDELINES

All poles should be aluminum; square shaped (straight); bronze anodized finish.

When mounting height exceeds 35 feet, a square steel pole is to be used (tapered at top) - Bronze Finish.

Parking and roadway luminaires should be arm mounted rectilinear with a cut off of approximately $80^{\circ} \pm 10\%$.

Luminaire and pole shall be provided with a bronzed, anodized finish and appropriate NEMA distribution for the intended purpose.

All lamps should be provided in high pressure sodium in order to facilitate the same color rendition.

Lighting should vary with the volume and type of traffic and with the visual character of development. Street and pedestrian lighting should be coordinated with other elements of the streetscape, such as signage, landscape planting, paving materials, trash containers, and bus shelters.

Walkway and Plaza Lighting: Provided by fixtures mounted at average heights between 12 to 15 feet. Selection of light poles and fixtures should be consistent throughout the Base.

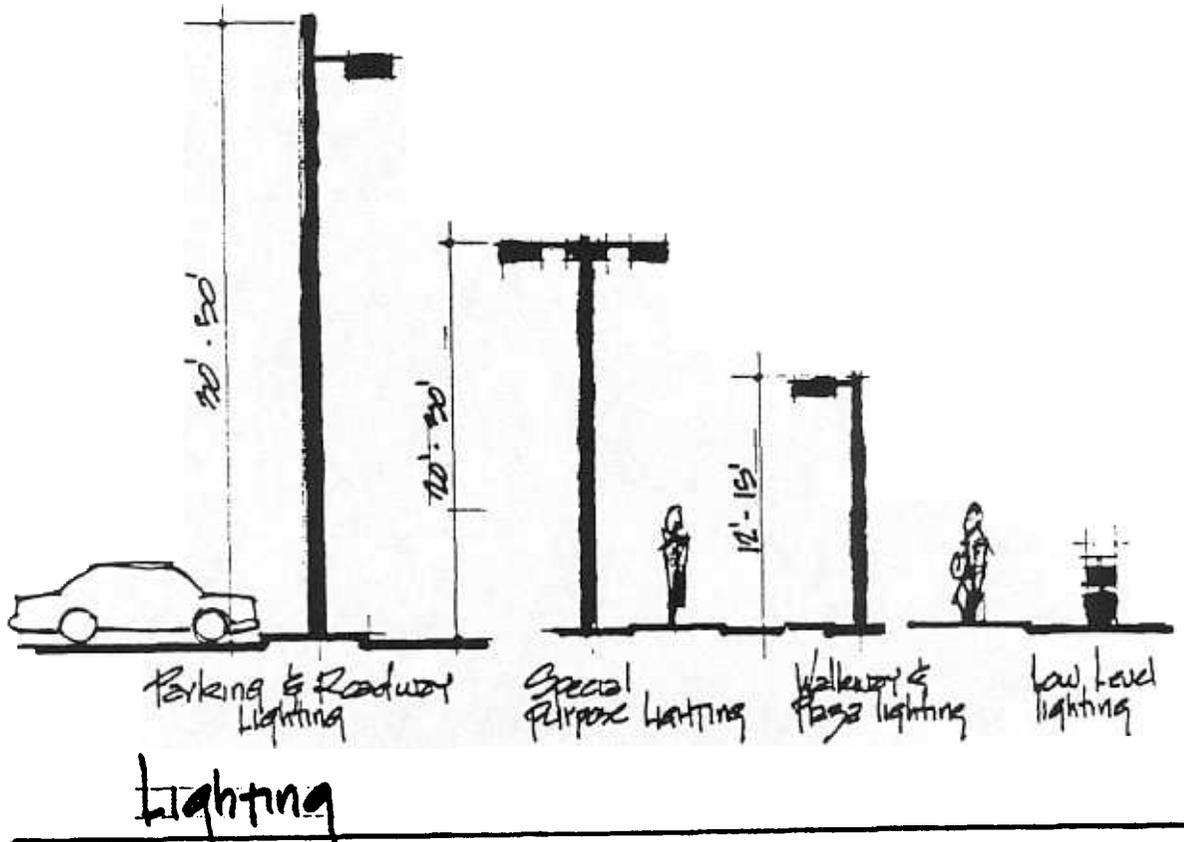
Special Purpose Lighting: Provided by fixtures mounted an average height of between 20 and 30 feet. Selection of light poles and fixtures should be consistent throughout the Base.

Parking and Roadway Lighting: Provided by fixtures mounted at average heights of between 30 to 50 feet. Lighting poles and fixtures should be consistent throughout the Base.

Standards or poles should be selected based upon their functional and aesthetic appropriateness.

The pole system selected should be used consistently throughout the Base.

EXTERIOR LIGHTING DESIGN GUIDELINES



EXTERIOR LIGHTING DESIGN GUIDELINES
LUMINAIRES

WALKWAY & PLAZA LIGHTING LUMINAIRE:

Rectilinear Shaped

Manufacturer:

EMCO
2661 Alvarado Street
San Leandro, CA 94577

Widelite, Inc.
P.O. Box 606
San Marcos, TX 78666

Model Number:

Infinity II - Extruded
PAED-3H-150HPS-120-DDB

Spectra 10, S10S-150-3

SPECIAL PURPOSE LIGHTING LUMINAIRE:

Rectilinear Shaped

Manufacturer:

EMCO
2661 Alvarado Street
San Leandro, CA 94577

Widelite, Inc.
P.O. Box 606
San Marcos, TX 78666

Model Number:

Infinity II - Extruded
PAEF-3H-250HPS-120-DDB

Spectra 10, S10S-150-3

EXTERIOR LIGHTING DESIGN GUIDELINES
LUMINAIRES

PARKING & ROADWAY LIGHTING LUMINAIRE:

Rectilinear Shaped

Manufacturer:

EMCO
2661 Alvarado Street
San Leandro, CA 94577

Widelite, Inc.
P.O. Box 606
San Marcos, TX 78666

Model Number:

Infinity II - Extruded
PAED-3H-1000HPS-120-DDB

Spectra 10, S10S-1000-3

LOW LEVEL LIGHTING LUMINAIRE:

Rectilinear Shaped

Manufacturer:

EMCO
2661 Alvarado Street
San Leandro, CA 94577

Widelite, Inc.
P.O. Box 606
San Marcos, TX 78666

Model Number:

Infinity II - Extruded
BR-C-70HPS-120-BRP

Widelite LSS-070-L

EXTERIOR LIGHTING DESIGN GUIDELINES
POLES

WALKWAY & PLAZA LIGHTING POLE:

Square Shaped

Manufacturer:

Lexington Standard Corp.
1243 Eagan Industrial Road
Eagan, MN 55121

NAFCO
P.O. Box 1065
Fon Du Loc, WI 54955

Model Number:

1500-40404Q4
Finish DDB

4S 12-C or 4S 15-C

SPECIAL PURPOSE LIGHTING POLE:

Square Shaped

Manufacturer:

Lexington Standard Corp.
1243 Eagan Industrial Road
Eagan, MN 55121

NAFCO
P.O. Box 1065
Fon Du Loc, WI 54955

Model Number:

3000-60606Q4
Finish DDB

4S 20D

EXTERIOR LIGHTING DESIGN GUIDELINES

POLES

PARKING & ROADWAY LIGHTING POLE:

Square Shaped (Tapered at Top) (Up to 50 ft.)

Manufacturer:

Valmont Industries
Valley, NB 68064

NAFCO
P.O. Box 1065
Fon Du Loc, WI 54955

Model Number:

DS 220
881 E 500 FP
Dark Bronze Paint

6S-30E

LANDSCAPE DESIGN GUIDELINES

LANDSCAPING AT DYESS AIR FORCE BASE

General:

Dyess Air Force Base is not an inhospitable environment for plant materials. However, the very hot, dry summer climate combined with a prevailing breeze and an alkaline soil requires that irrigation systems be a part of any *important and highly visible*, landscape improvement. Additionally, improved planting procedures combined with the current two-year "Maintenance Contract" can assure that landscape improvements prosper and add to the visual quality and quality of life aspects of Dyess.

Specific:

- * Every, *important and highly visible*, new, landscape installation should include an underground, electronically controlled irrigation system. Lawn areas should also be irrigated.
- * Planting pits should be at least twice as large as the root ball of the plant being installed. An additional area one foot wide around the pit shall be loosened.
- * Special soil mixes should be discontinued and the plants should be planted in the native soil after it has been tilled and cleaned of clods and extraneous matter.
- * Tree trunks shall not be wrapped unless the particular tree has a thin bark susceptible to damage.
- * Guy wires with rubber hose shall not be used. Ties shall be of a non-abrasive type which will not cut into the tree trunk.
- * Where shallow root systems may be a problem, root barriers should be utilized.

The plant materials listed on pages 103 TO 108 have been selected for their ability to survive in the central-west Texas environment. However, with irrigation systems almost any plants found in residential usage will survive. The extent of such systems should be considered in light of water availability and cost. Where irrigation is not used, more careful plant selection will be required.

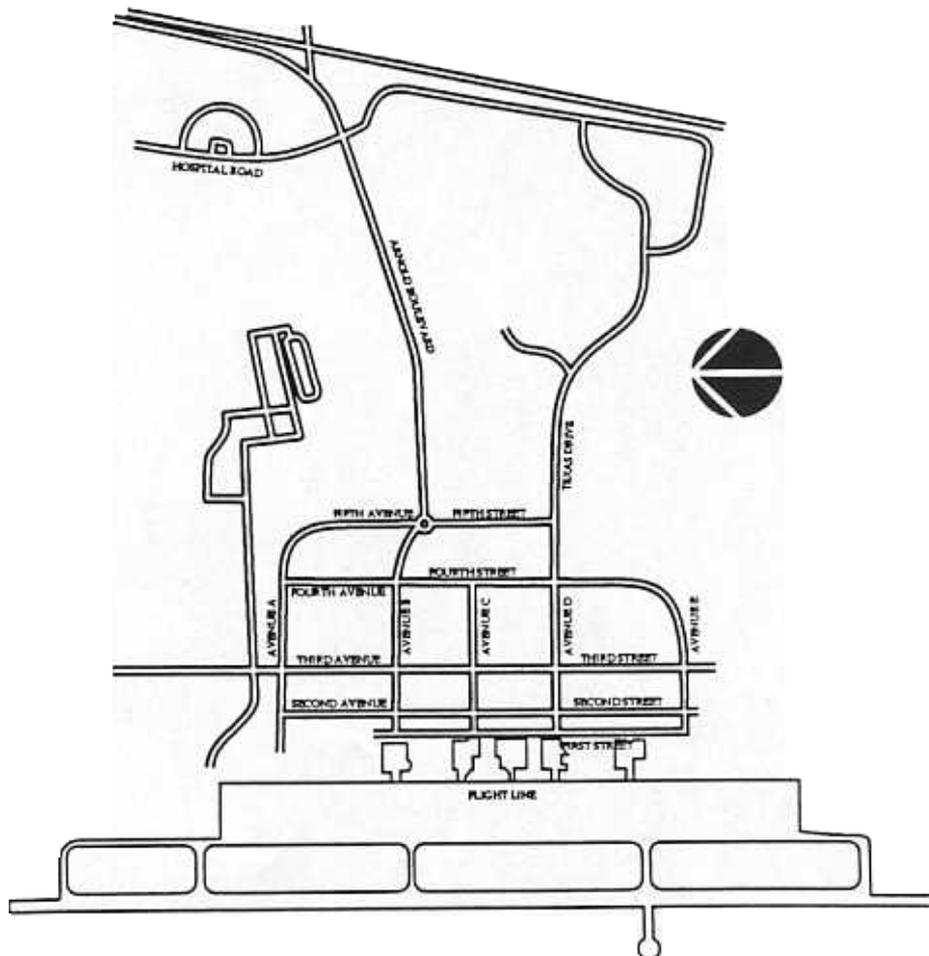
LANDSCAPE DESIGN GUIDELINES

STREETS

General:

The streets at Dyess AFB define movement patterns and visual corridors and establish physical patterns on the land. Streets orient travelers and can give directional clues for persons moving about the base. A number of efforts have been made in order to create a hierarchy of street and roads and to assign various levels of importance to these given their various classifications as "primary", "secondary" or "tertiary".

The streets are oriented north-south and east-west in a grid pattern and this facilitates finding ones way without difficulty. Presently, Arnold Boulevard and Avenue B constitute a "primary" roadway leading from the Base entrance to the Flight Line. Third Street and Third Avenue, which run north-south and perpendicular to Avenue B, separates Zone 1 from the other zones. This is a clear and reasonable division, and other initiatives have been developed around these particular streets and the zones which they create.



LANDSCAPE DESIGN GUIDELINES

Recommendations:

"Primary" streets, Arnold Blvd., Avenue B, Third Ave./Third St. and Avenue D should be planted with street trees first and as soon as funds can be allocated.

"Secondary" streets, Hospital Rd., Texas Dr., Avenue A, Fourth Ave., Avenue C, Avenue E, Second Ave. and Second Street, should be planted as soon as possible after "primary" streets, if not simultaneously. Trees on "secondary" streets should be of a different species than those on "Primary" streets and preferably somewhat smaller but, definitely not larger.

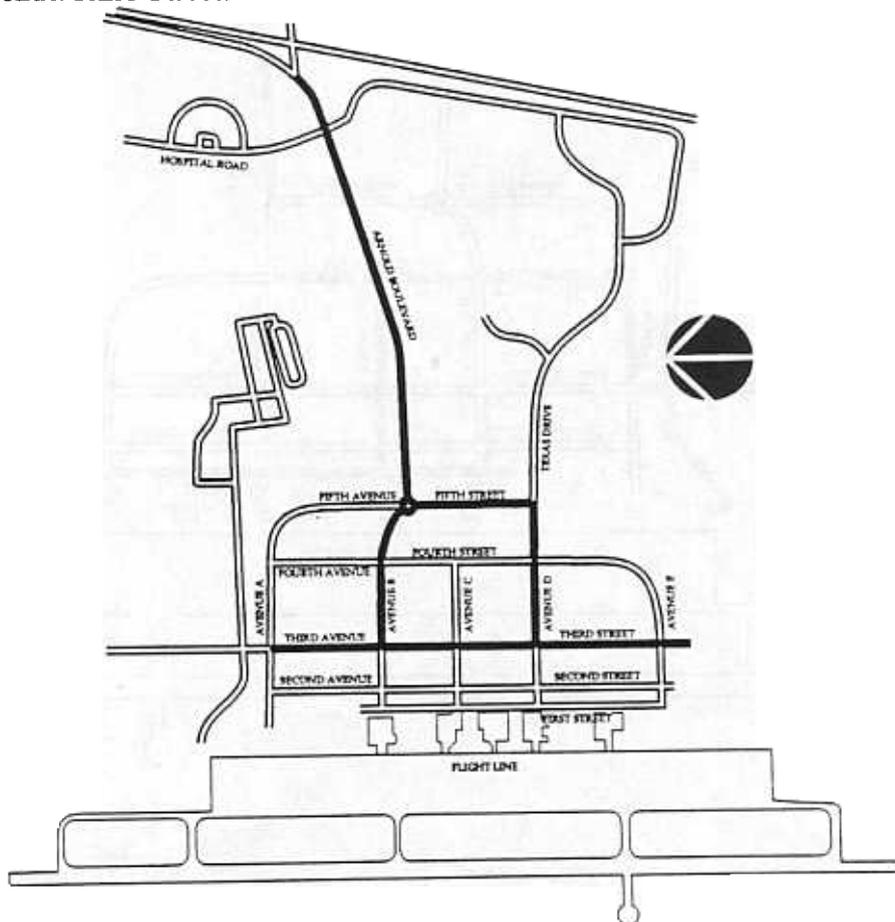
Planting of street trees at Dyess AFB will help to reinforce the circulation system and its pattern and give visual clues and guidelines to the traveler as to which are the major streets that are most likely to take them to those areas and facilities that are most commonly utilized.

LANDSCAPE DESIGN GUIDELINES

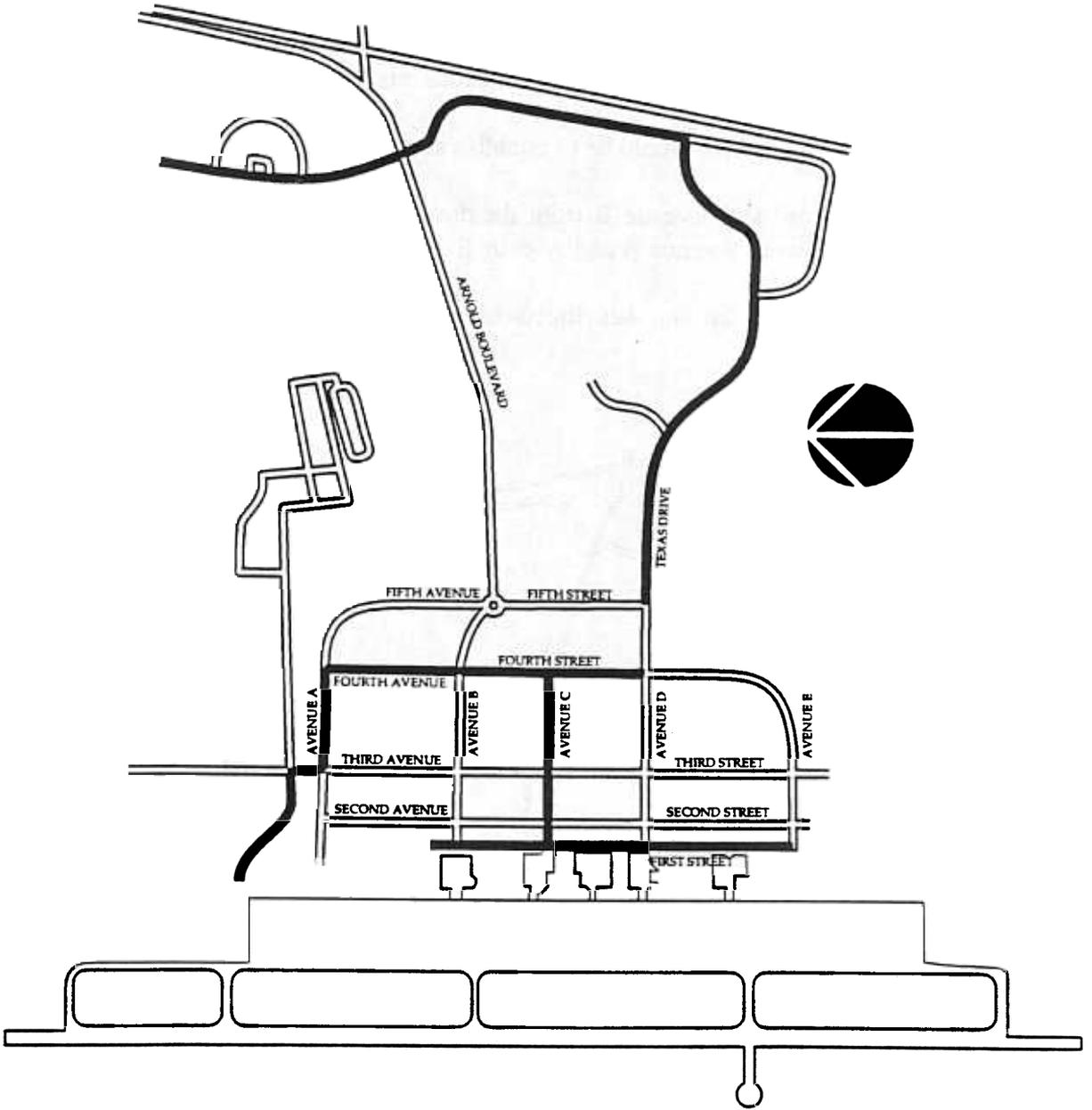
With the inclusion of street trees in these areas, the primary streets will be defined and the central core of the base will be encircled, thus allowing an uninformed traveler on the base to follow these clues and find most of the major facilities that they are likely to need. Recommended trees for use along these various streets must be proven hardy for this location and climate. Good candidates would be the Pecan, London plane tree and the Arizona ash. A list of trees will be found at the end of this section with recommendations relative to planting procedures and care.

Prioritized recommendations would be to establish street trees as follows:

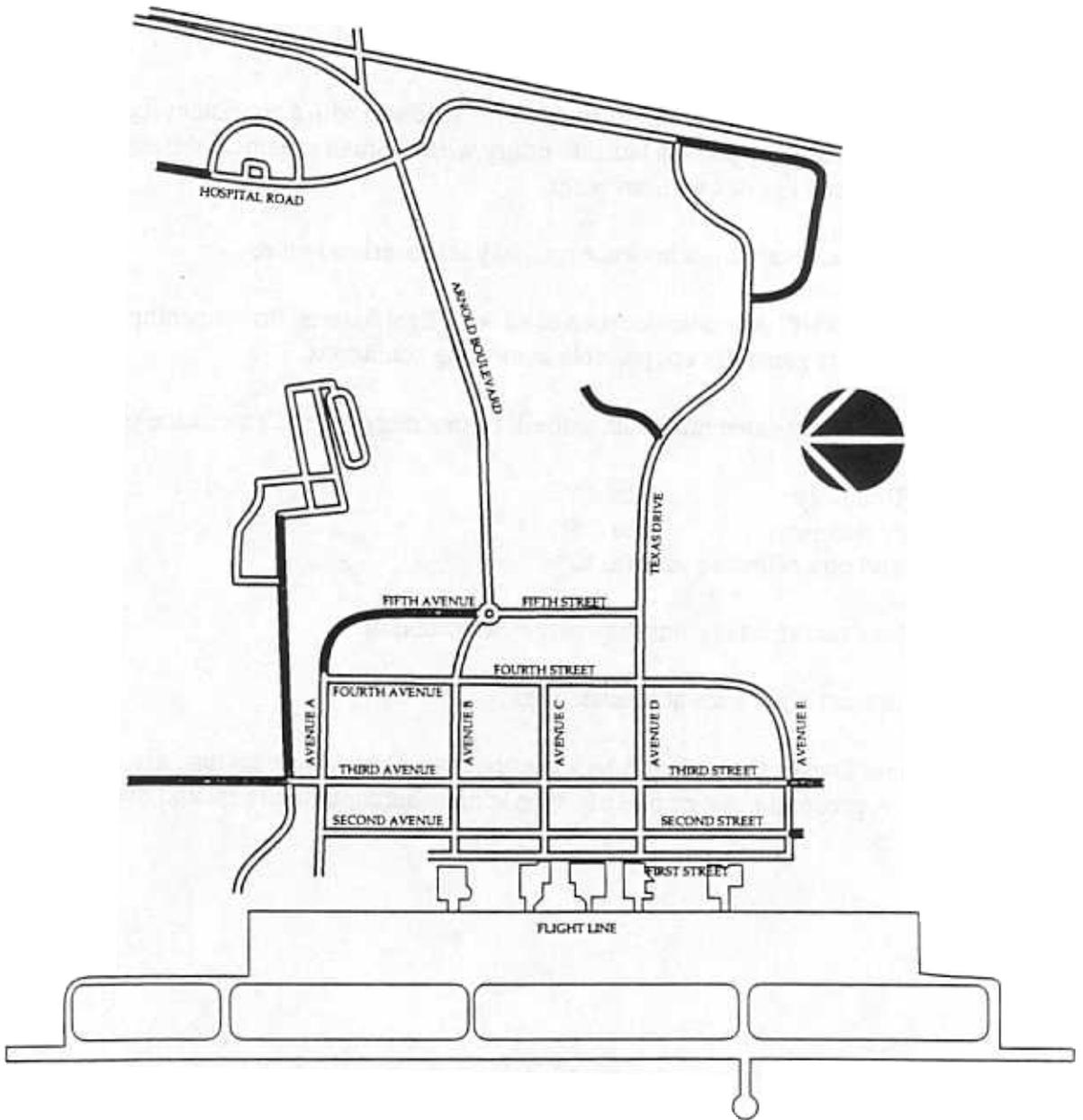
1. Arnold Boulevard and Avenue B from the drainage channel to Third Avenue (Street). Third Street between Avenue A and Avenue E.
2. Avenue D between 3rd and 4th Streets and along 5th Street between Avenue D and Avenue B.
3. Third Avenue/Third Street.



LANDSCAPE DESIGN GUIDELINES



LANDSCAPE DESIGN GUIDELINES



LANDSCAPE DESIGN GUIDELINES

Planting Street Trees

General:

Deciduous canopy trees are most desirable for street trees as they provide shade in the growing season and let sunlight through in the winter months.

Specifics:

Trees shall be planted in straight lines along the roadway with a consistent setback. Make sure that large trees are not planted beneath utility wires. Small ornamental trees (15' to 20') may generally be used below overhead wires.

Where possible, locate trees between roadway and overhead wires.

Spacing of trees will depend on location of utilities, light fixtures, drive openings and tree species. Exact spacing is generally not possible in existing conditions.

Recommended desirable minimum setback from street curb to Center Line of tree:*

Primary Roadway: min. 15'

Secondary Roadway: min. 15'

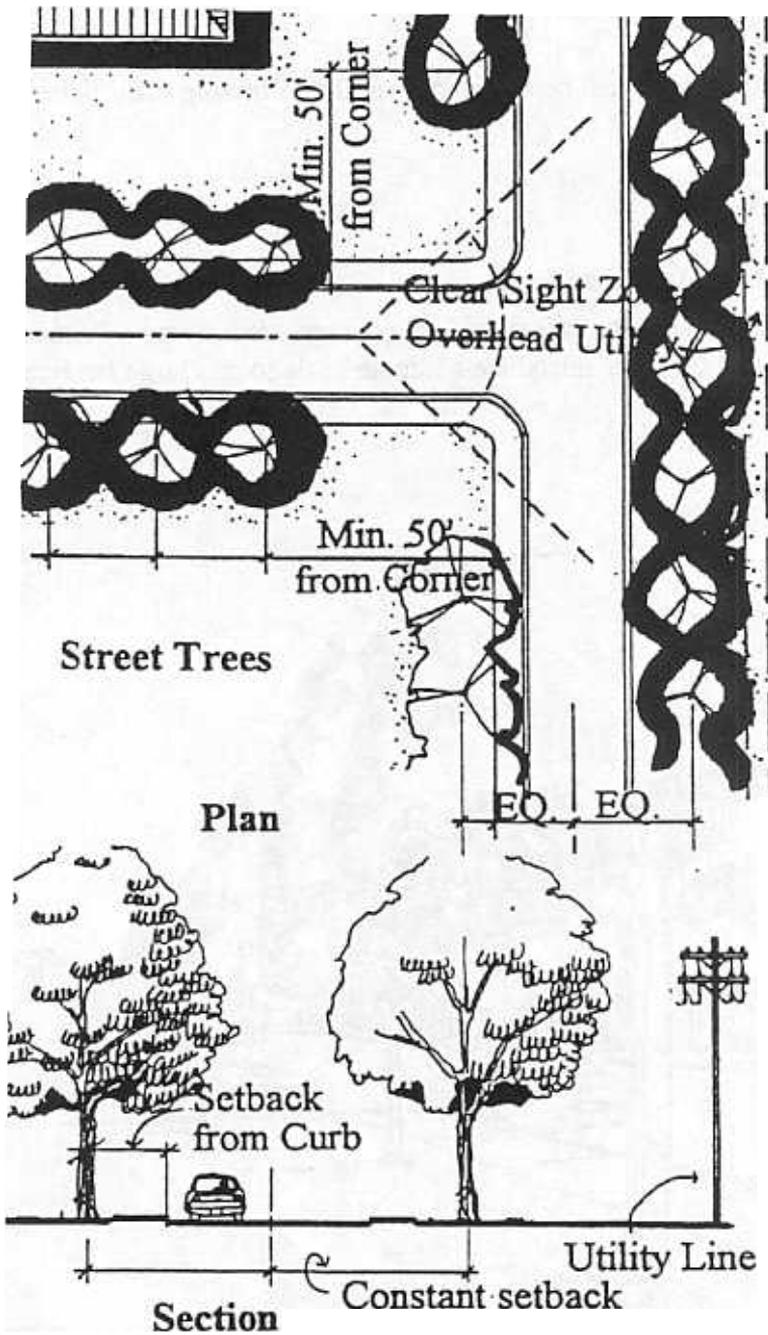
Tertiary and other Roadways: min. 10'

*Particular existing conditions may require adjustments.

*Maintain clear sight lines at intersections.

Throughout Dyess, there should be some variety of street trees so that a mono-culture is not created. A predominance of one tree type is more susceptible to pest and disease damage.

LANDSCAPE DESIGN GUIDELINES



LANDSCAPE DESIGN GUIDELINES

Street trees shall be provided with a 'drip' irrigation system, or a convenient, freeze-proof hose connection every 100'.

Plant Section:

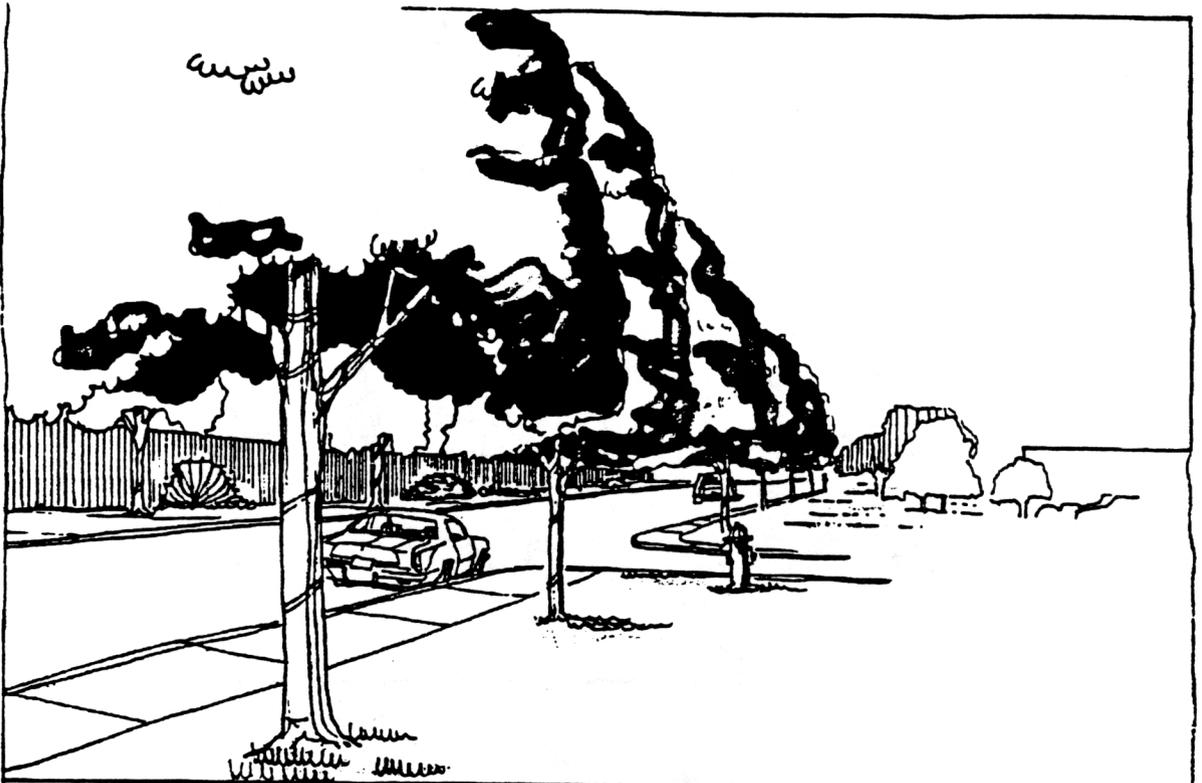
Plantings for street trees shall be selected from the following Plant Schedule:

Street Trees

Page: 103 TO 108

Conceptual Street Tree Planting

The illustration conveys the effects of large canopy trees along a Primary street. The street is better defined and the trees introduce a human scale to this large landscape.



Recommended Planting for Fourth Street
(Between C & D Avenues)

LANDSCAPE DESIGN GUIDELINES

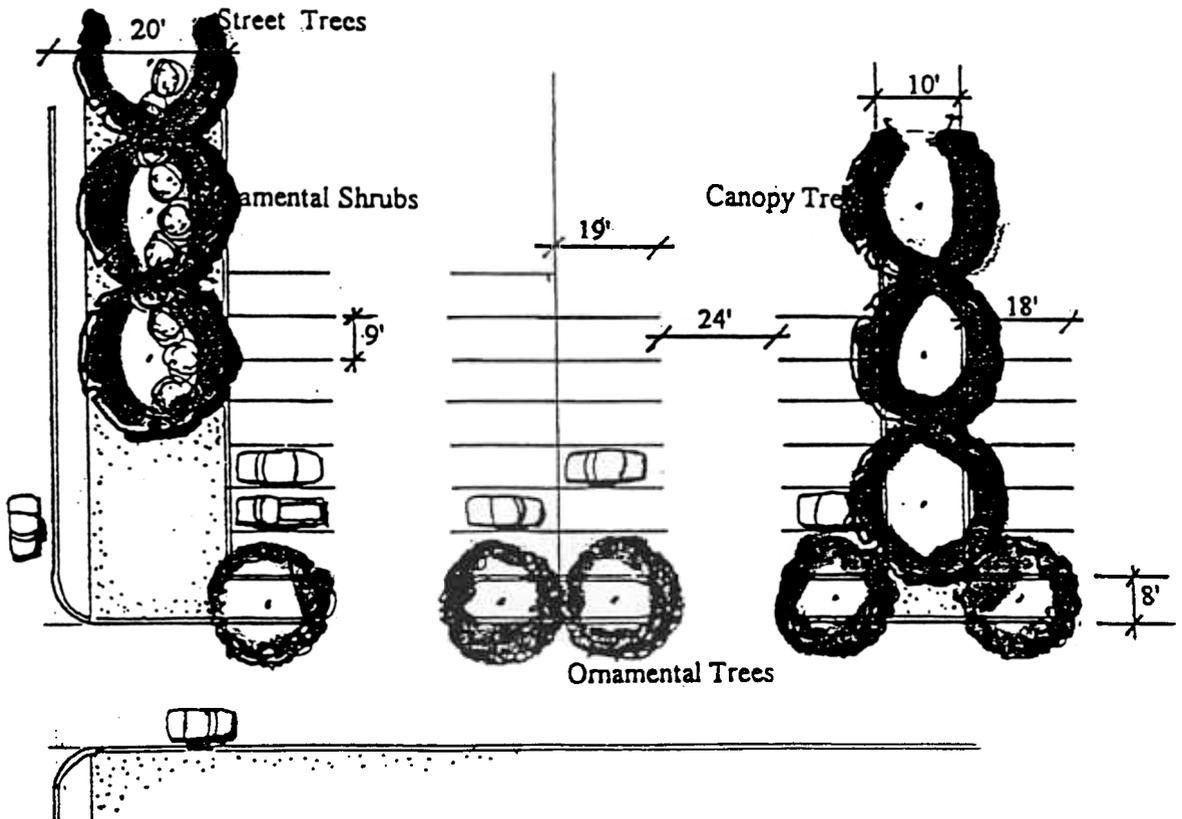
Parking Area Layout

General:

Parking areas shall be laid out for efficiency, aesthetics and environmental reasons. In general, signage and parking lot design shall comply with the Dyess AFB Traffic Engineering Study. In many relatively unconstrained sites a 90 degree system works best. For aesthetics and environmental reasons, screening and buffer strips and planting islands are called for. Planting islands and buffer strips can provide shade, windbreaks, and visually break up large expanses of paving.

Layout:

Parking areas shall be separated from street by a minimum of 20 feet to allow for screening. Each bay end shall have a minimum 8-foot wide island to separate parked cars from moving vehicles and every second bay shall have a minimum 10-foot wide median running the length of the bay. Lighting shall be provided in all parking areas.



LANDSCAPE DESIGN GUIDELINES

Plant Selection:

Plantings for parking lots shall be selected from the Plant Schedule on pages 103 to 108.

Ornamental and Evergreen Trees

Shrubs: Large and Medium

Pages: 103 to 108

Screening Parking Areas

General:

Parking areas shall be screened or buffered from streets, housing areas and administrative facilities. Medians separating parking areas from streets and roads shall be a minimum of 20 feet in width. This dimension will allow for adequate space to incorporate plantings for effective screening.

Planting Strips:

A relatively flat planting strip will allow for effective screening by incorporating medium to large ornamental and evergreen shrubs and trees. Street trees along the roadway will also be helpful.

Earth Berms:

One way to facilitate screening is to use earth berms. These should be used carefully at Dyess since the general impression is of a 'flat' landscape. Berm height should be no more than 3 feet and slopes should be no steeper than 3 to 1.

Plant Selection:

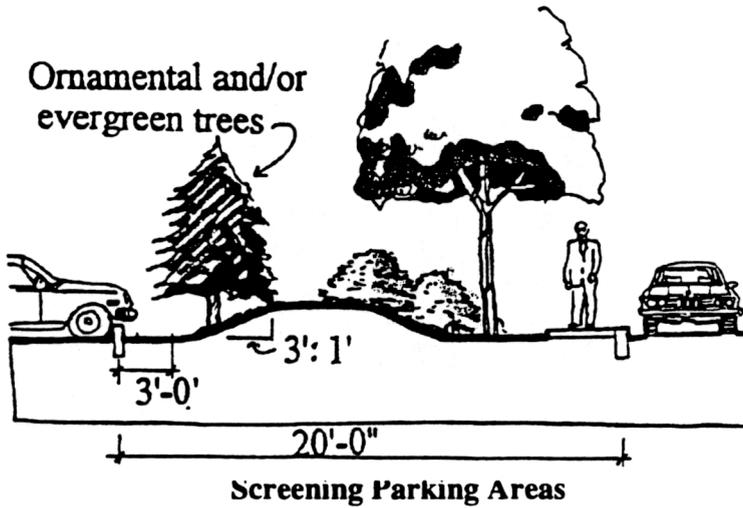
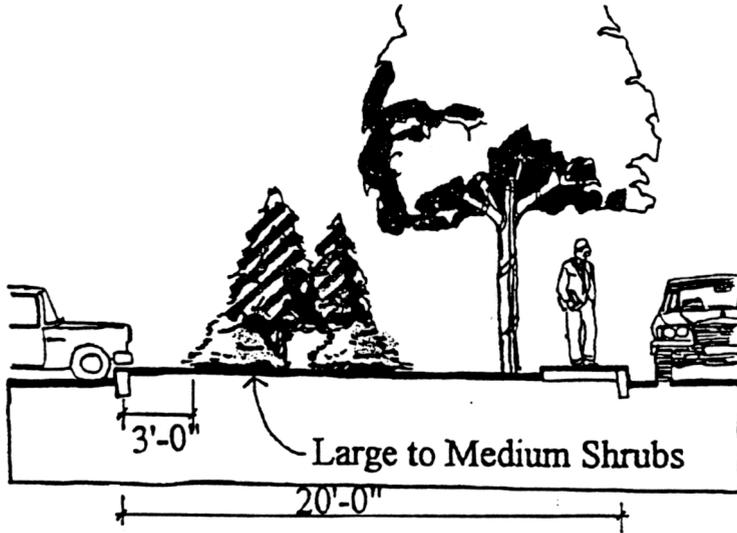
Plantings for parking lot screening shall be selected from the Plant Schedule on pages 103 to 108.

Ornamental and Evergreen Trees

Shrubs: Large and Medium

Pages: 103 to 108

LANDSCAPE DESIGN GUIDELINES



LANDSCAPE DESIGN GUIDELINES

Planting Existing Islands

General:

Existing islands shall be utilized for the planting of large deciduous canopy trees in existing parking areas. These areas offer immediate opportunities to provide shade and reduce heat build-up as well as improve the visual environment.

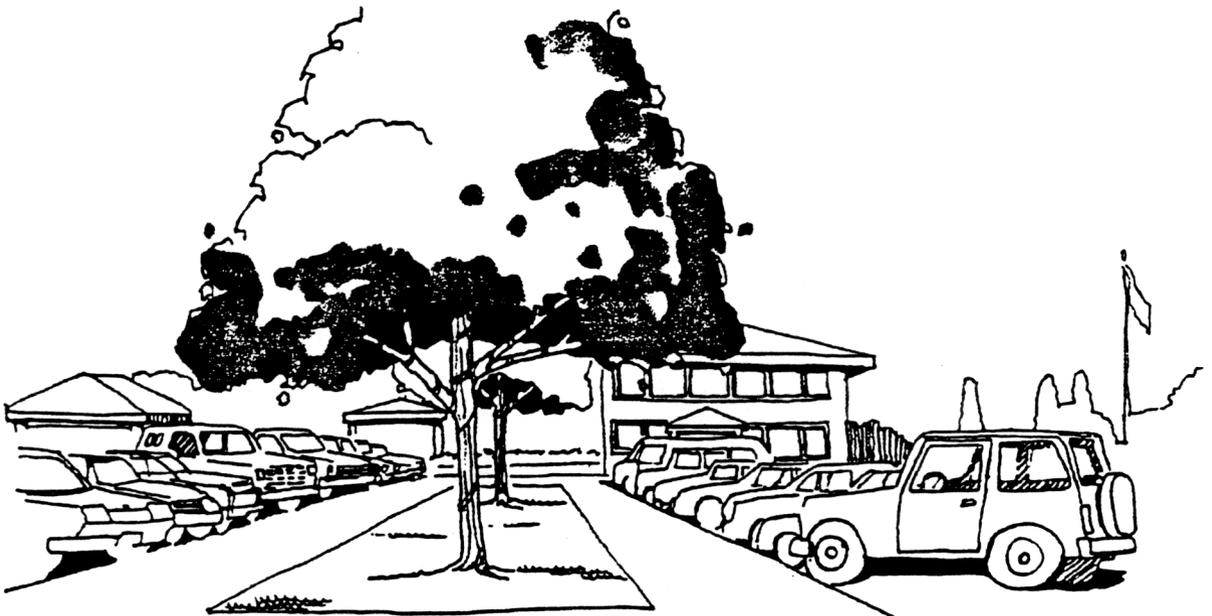
Plant Selection:

Plantings for existing parking lot islands shall be selected from the Plant Schedule on pages 103 to 108.

Street Trees

Ornamental and Evergreen Trees

Shrubs: Large and Medium



Treatment of Existing Parking Areas with Planting Islands

LANDSCAPE DESIGN GUIDELINES

Screening Dumpsters

Dumpsters are required elements in all zones but need to be screened from general view. Dumpster openings shall be oriented away from entry areas and main streets. Masonry construction is appropriate for all zones. Block shall have a manufactured finish or, an 'Exterior Insulation Finish System' in Zone 1, but brick veneer is called for in Zones 2 and 3. EIFS finishes and brick shall be compatible with adjacent buildings.

Where additional screening is desired, a wood board-on-board or metal gate can be added. In all cases, steel and concrete bollards shall be utilized to protect the enclosure.

A concrete pad for the dumpster and a reinforced landing for the truck shall be provided at all sites.

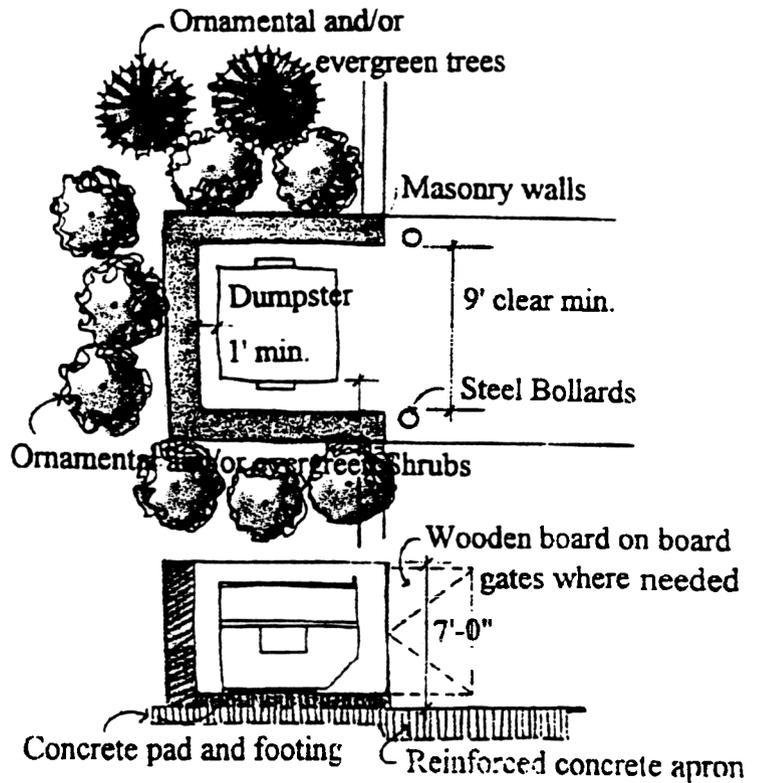
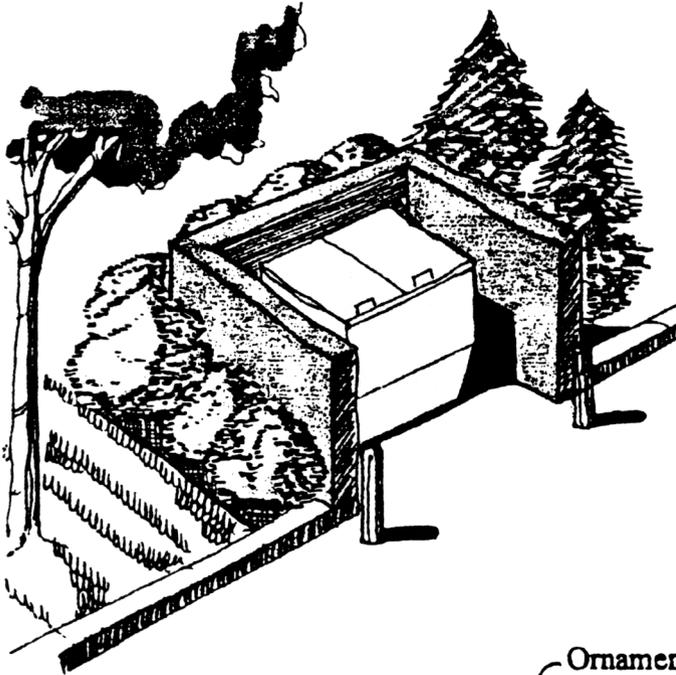
Large and dual dumpsters can be accommodated by increasing the dimensions of the enclosure accordingly. A nearby hose bib is advisable for cleaning purposes.

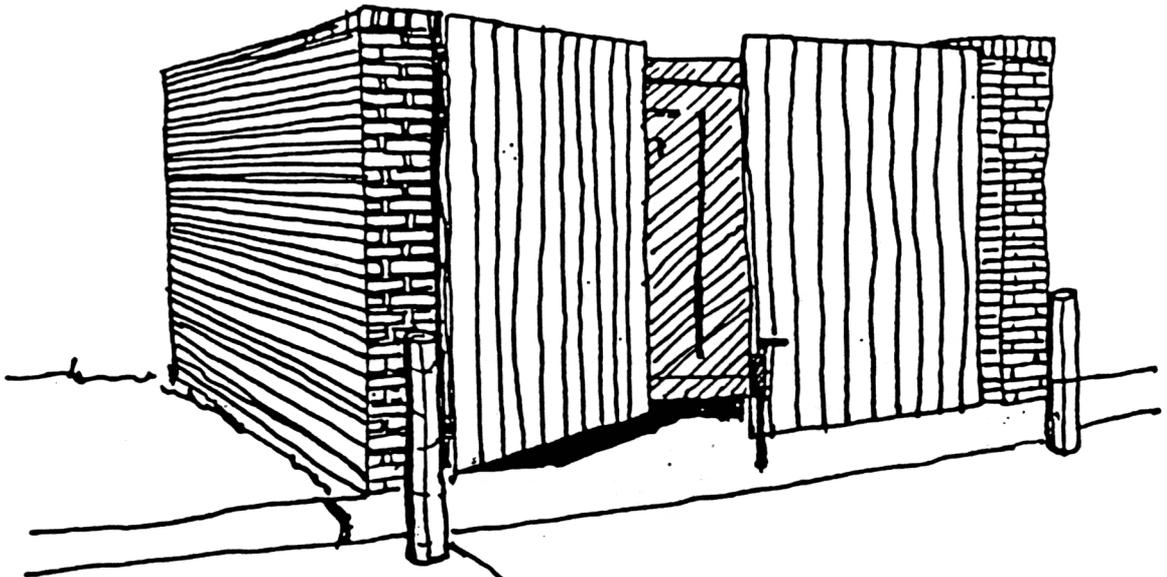
Plant Selection:

Plantings for dumpster screening shall be selected from the following Plant Schedules;

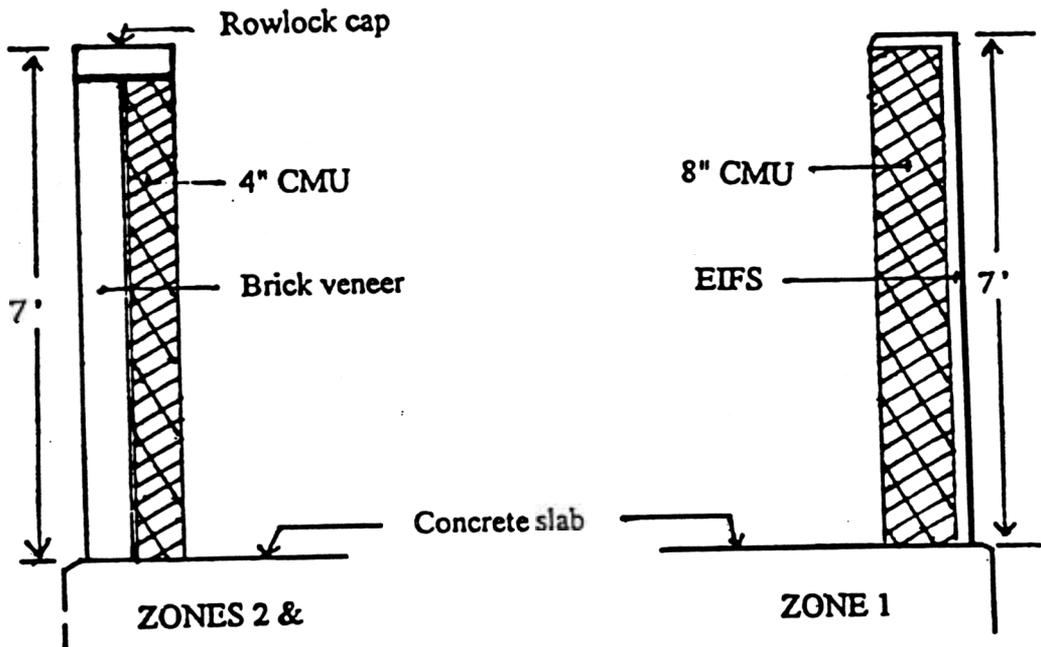
Ornamental and Evergreen Trees Shrubs: Large and Medium
Pages: 103 to 108

Masonry Dumpster Enclosure

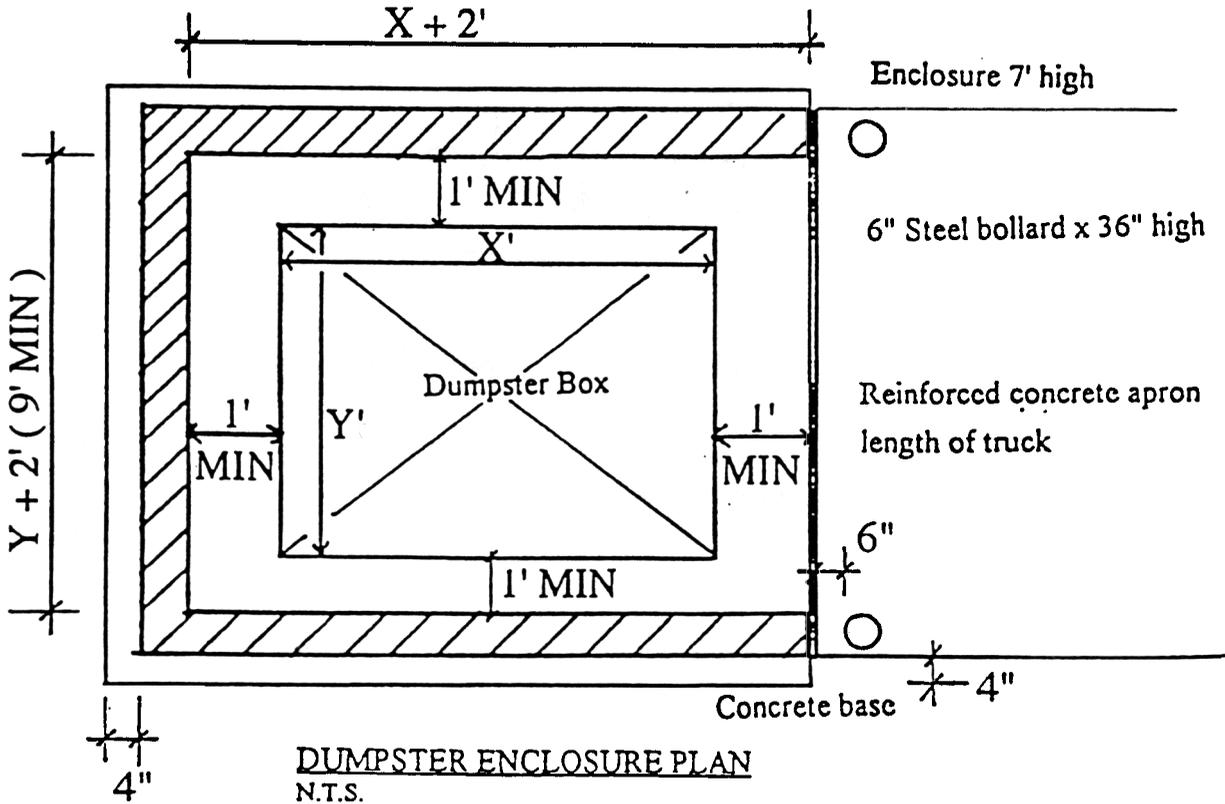




Brick Enclosure with Wood Gate



LANDSCAPE DESIGN GUIDELINES



LANDSCAPE DESIGN GUIDELINES

Locating and Screening Mechanical Equipment

General:

Mechanical equipment shall be located away from building fronts and other high visibility areas such as entries.

Where possible, these elements can be located near or in association with loading and service areas to the rear or at building ends.

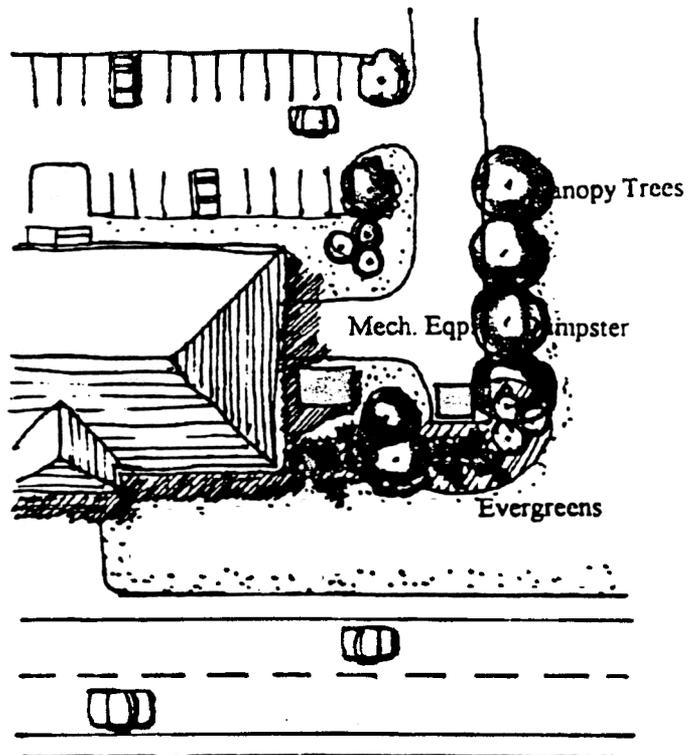
Landscape or architectural screening should be used to reduce visibility from public areas and to soften the elements.

Plant Selection:

Plantings for mechanical equipment screening shall be selected from the Plant Schedule on pages 103 to 108.

Ornamental and Evergreen Trees
Shrubs: Large and Medium

Locating and Screening Mechanical Eqp. and Dumpsters



LANDSCAPE DESIGN GUIDELINES

Screening Mechanical/Electrical Equipment in Housing Areas

General:

Where mechanical and electrical equipment is located between and adjacent to housing, it shall be screened.

Specifics:

Planting shall be ornamental and evergreen, with an emphasis on evergreen, to both be attractive and provide effective screening year-round.

Where space is very limited, screen walls may be most effective. Walls and/or fences shall be compatible with adjacent building materials and colors.

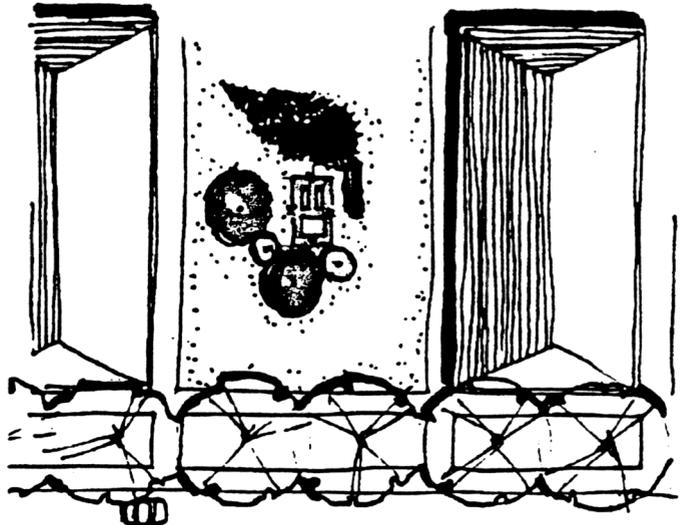
Assure that access is maintained for maintenance and or replacement.

Plant Selection:

Plantings for mechanical and electrical equipment shall be selected from the Plant Schedule on pages 103 to 108.

Ornamental and Evergreen Trees

Shrubs: Large and Medium



LANDSCAPE DESIGN GUIDELINES

Screening Loading Docks

General:

Loading docks and service areas shall be buffered and screened from high visibility.

Screening:

A landscape or architectural buffer shall be provided. Landscape buffers shall consist of a mixture of medium to large evergreen shrubs and some ornamental and evergreen trees where space permits. The planting shall be extensive enough to block visibility of the dock area and trucks using the area.

In high visibility areas, earth berms with landscape screening may be utilized for more effective results.

In situations where space is severely limited, walls or fences may be utilized.

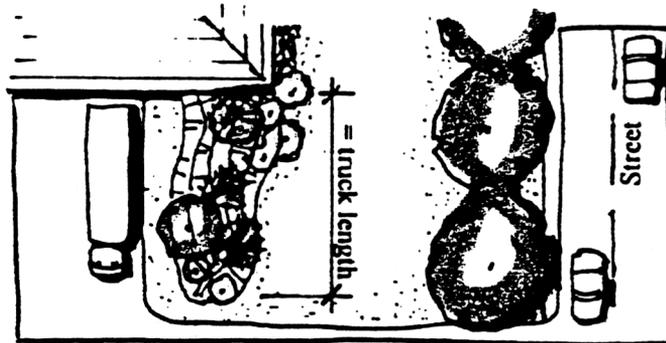
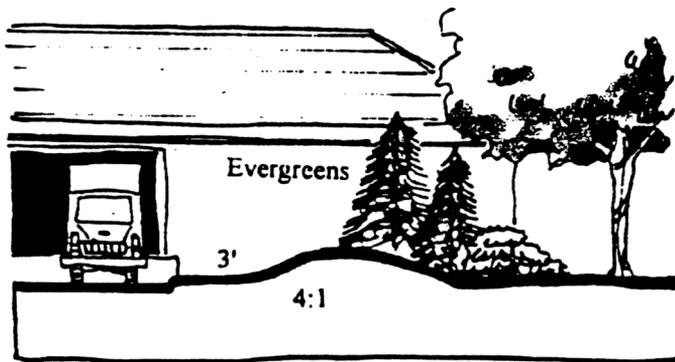
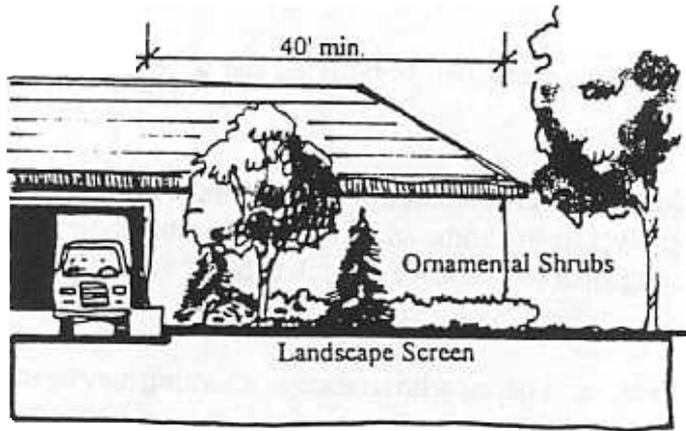
Plant Selection:

Plantings for loading dock screening shall be selected from the Plant Schedule on pages 103 to 108.

Ornamental and Evergreen Trees

Shrubs: Large or Medium

LANDSCAPE DESIGN GUIDELINES



Screening Loading Docks

LANDSCAPE DESIGN GUIDELINES

Screening Secure Areas

General:

Secure areas are predominantly found in Zone 1 associated with the Flight line, Training areas and Munitions area. These areas are generally enclosed by chain link fencing. The Flight line area along First Street is most visible and should be screened for security and aesthetic reasons.

Planting Strip:

A planting strip 5-foot wide minimum shall be utilized adjacent to and outside the fence line. Steel edging shall be used to separate the planting strip from adjacent lawn areas. Plants shall be a mix of ornamental and evergreen trees and shrubs. The strip shall be heavily (4") mulched. Mulching and edging will help in reducing maintenance of these strips.

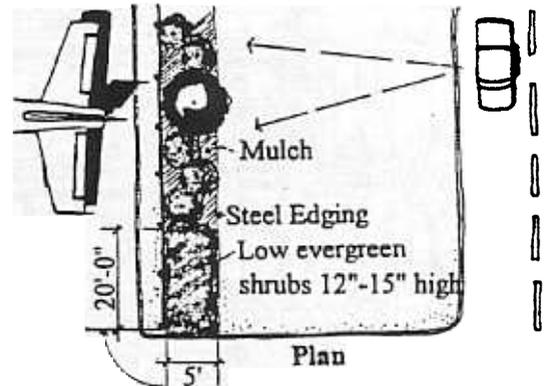
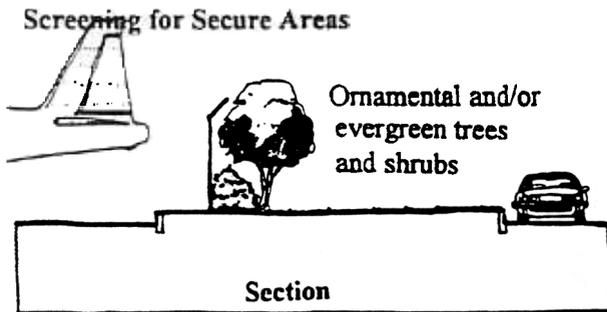
Fence Openings:

Where streets penetrate the fence line, a 20 ft. long strip either side of the gateway shall be planted with low evergreen shrubs of 12" to 15" height for improved security observation.

Plant Selection:

Plantings for secure area screening shall be selected from the Plant Schedule on pages 103 to 108.

Ornamental and Evergreen Trees
Shrubs: Large, Medium and Small



LANDSCAPE DESIGN GUIDELINES

Entry Plazas

General:

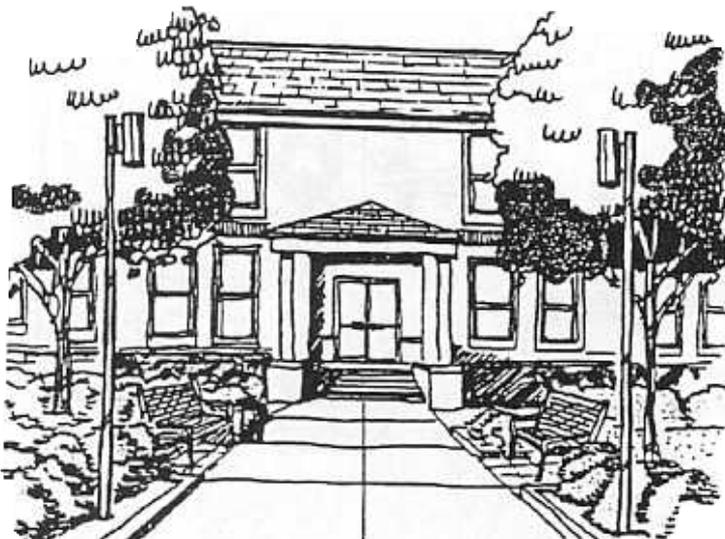
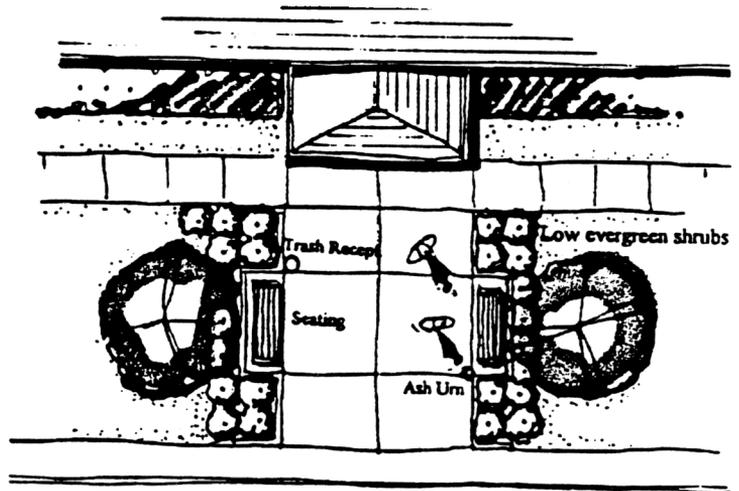
Entry plazas are appropriate to major buildings in all zones where intense use and high visibility occur.

Plantings, special pavements and a full complement of site furnishings and amenities shall be provided to identify and distinguish these buildings as important structures and activity areas at Dyess.

Plant selection:

Plantings selections from all schedules may be utilized in these areas.

Pages: 103 to 108



LANDSCAPE DESIGN GUIDELINES

Courtyards

General:

Courtyards can provide useful and attractive space for building occupants in all zones. These enclosed, shaded outdoor spaces should be provided at Dyess to offer relief from the brightness and heat of mid-summer days and convenient, useful, outdoor areas.

Size and Character:

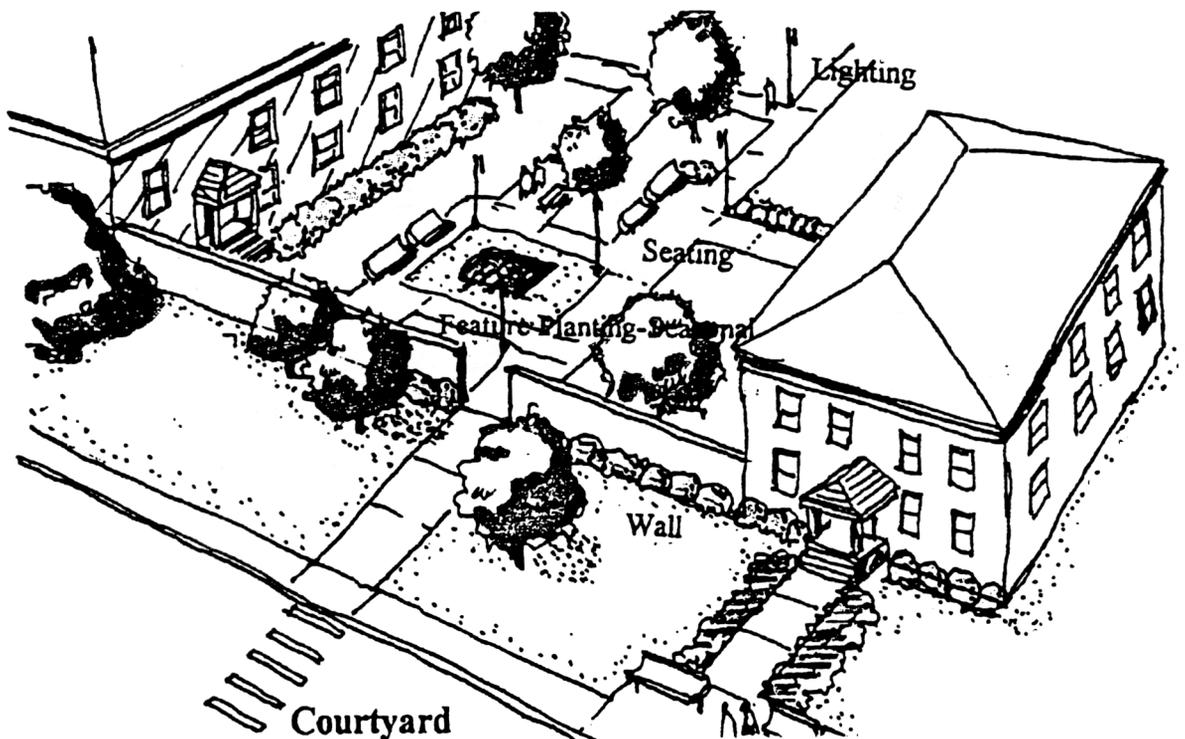
Courtyards should be associated with buildings having active occupancy. Generally, the courtyard should be about as wide as the adjacent building(s) height so that the building(s) provide some of the enclosure. Where a degree of privacy is desired, additional screening may be provided by plantings and/or walls. Plantings should provide shade and visual interest and seating, trash receptacles and lighting should be provided.

Plant Selection:

Plantings for courtyards shall be selected from the Plant Schedule on pages 103 to 108.

Ornamental and Evergreen Trees

Shrubs: Large, Medium and Small Groundcovers



LANDSCAPE DESIGN GUIDELINES

Landscaping for Major Buildings

General:

A pronounced entry can be achieved and the functional importance of major buildings can be reinforced with effective landscaping. Examples of major buildings are the Wing Headquarters and Group Headquarters buildings.

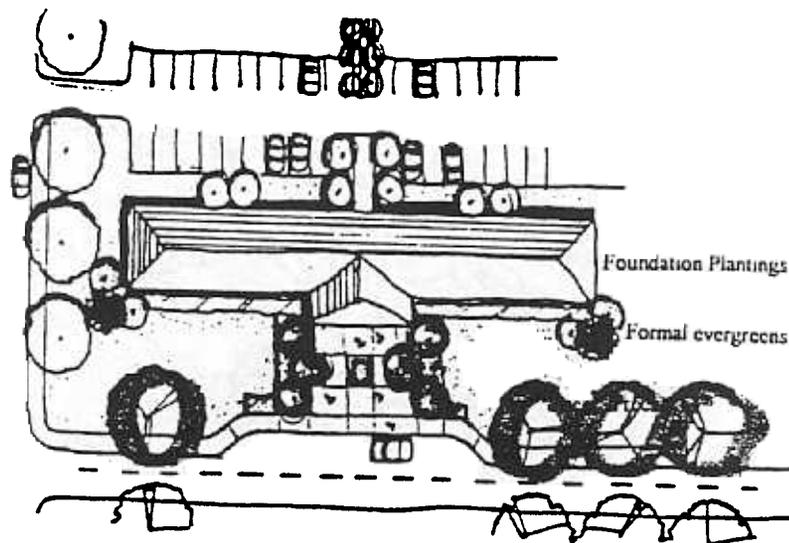
Landscaping should be treated somewhat more formally with an emphasis on evergreen shrubs.

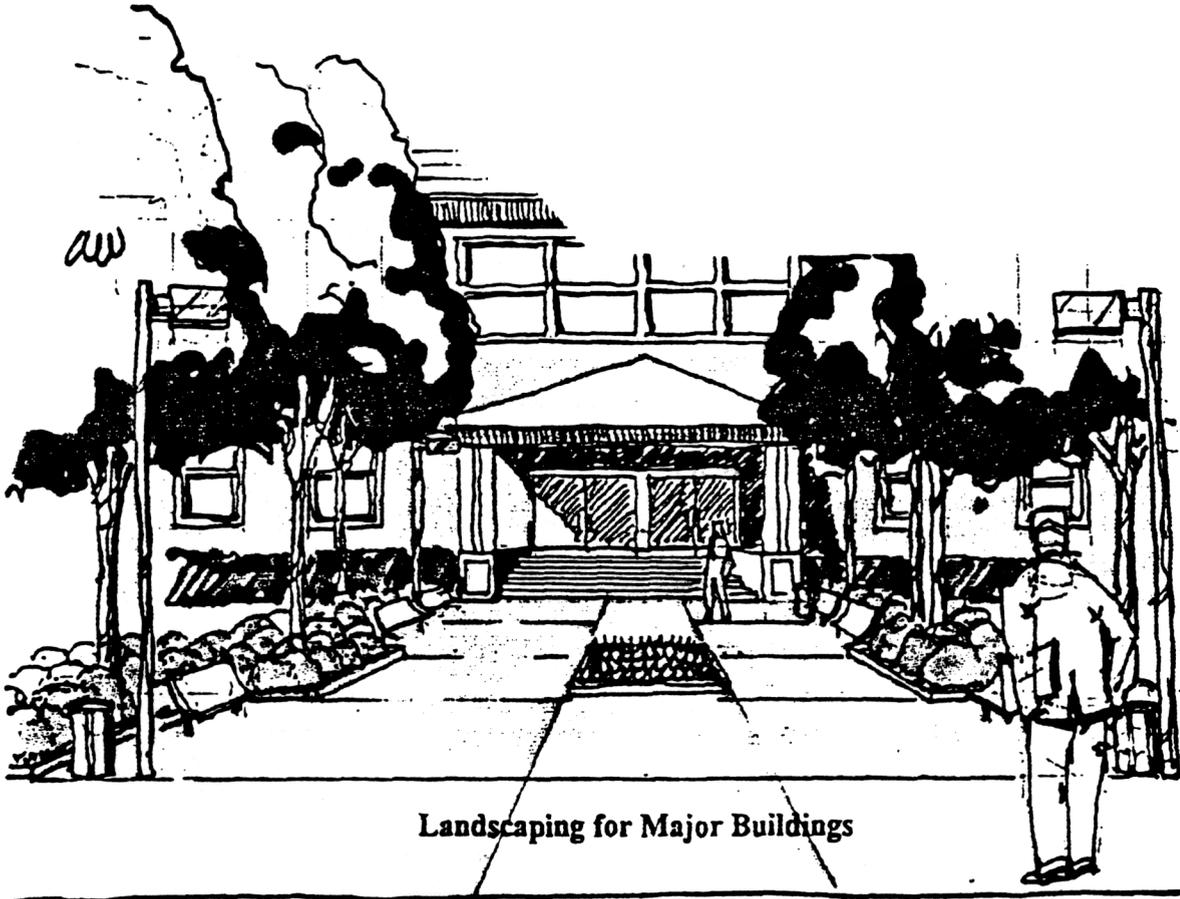
Plant Selection:

Plantings for major buildings shall be selected from the Plant Schedule on pages 103 to 108.

Ornamental and Evergreen Trees

Shrubs: Large, Medium and Small Groundcovers





Landscaping for Major Buildings

LANDSCAPE DESIGN GUIDELINES

Planting Adjacent to Buildings

General:

Planting adjacent to buildings should assist in defining the primary spaces relating to the building(s).

Specifics:

Landscape should be appropriate in scale to the particular building(s) and should help to provide identity, privacy and direction.

Plantings shall be more substantial near the building and shall diminish as distance increases.

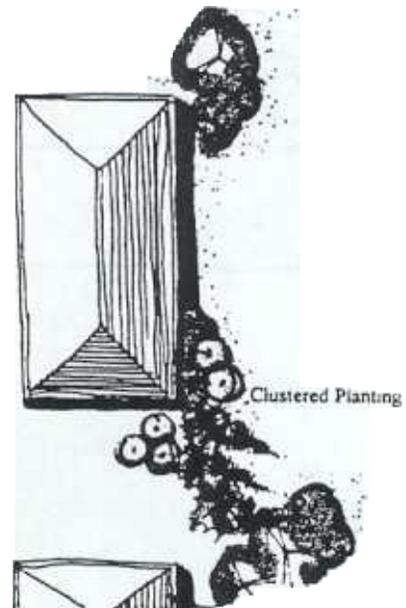
Where buildings abut open space and the 'Back to Nature' program efforts, there shall be an appropriate transitional lawn area of at least 50 feet.

Plant Selection:

Plantings adjacent to buildings shall be selected from the Plant Schedule on pages 103 to 108.

Ornamental and Evergreen Trees

Shrubs: Large, Medium and Small Groundcovers



LANDSCAPE DESIGN GUIDELINES

Site Furnishings

General:

Site furniture and related pedestrian amenities will be needed in various locations as Dyess continues to expand its mission and personnel.

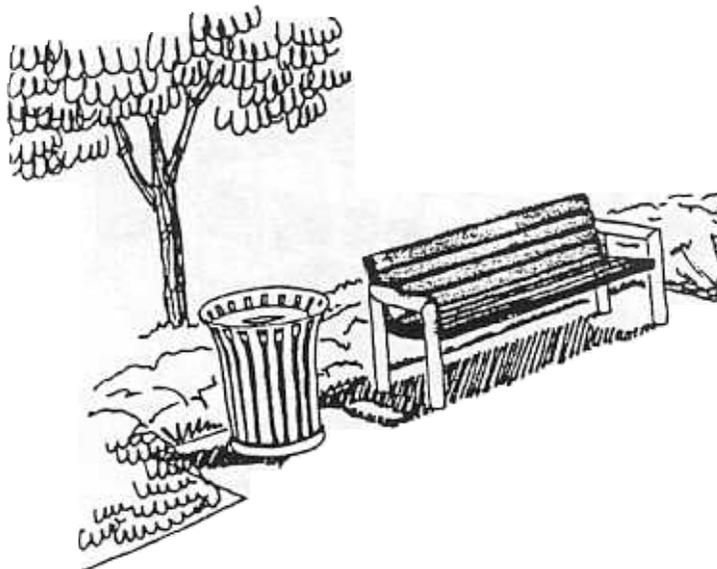
These furnishings shall be standard throughout the base in order to facilitate an orderly and visually harmonious physical development.

Benches:

Benches shall be: Parsons Series, Model P-8, of steel and wood construction. Wood members shall be 3" x 4" Ipe and steel shall be anodized bronze finish. Manufactured by Victor Stanley, Inc., Brick House Road, Dunkirk, Maryland 20754. Tel: 1-800-368-2573, or Model #P007011-6Y1 by Iron Mountain Forge, P.O. 897 Farmington, MO 63640. Tel: 1-800-325-8828.

Trash Receptacles:

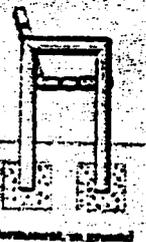
Trash receptacles shall be standard T-24 Model also manufactured by Victor Stanley, Inc. Metal finish shall be anodized bronze or Model #2811-DT by Columbia Cascade Company, 1975 S.W. Fifth Ave., Portland, Oregon 97201-5263. Tel: (503) 223-1157.



LANDSCAPE DESIGN GUIDELINES

THE PARSONS SERIES

(patent pending) . . . A special new way to look at site furniture design . . . mitred joints . . . bold colors . . . beautiful wood . . . now with a choice of matching tables.

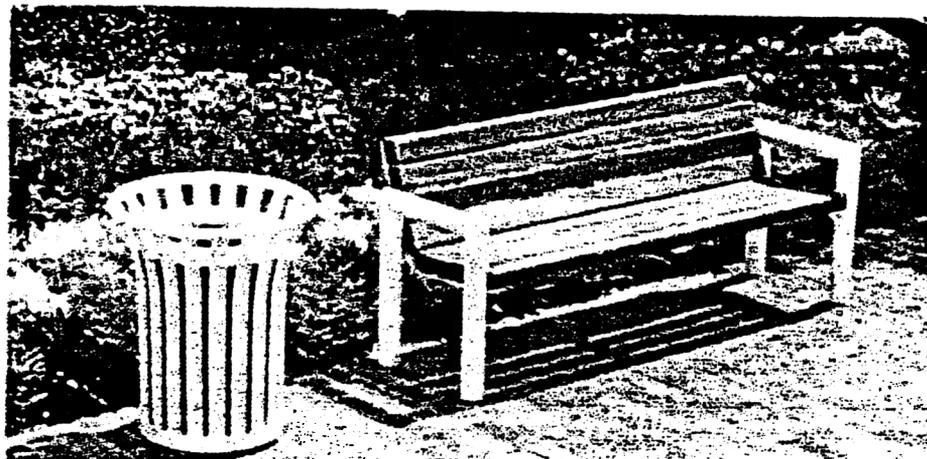


The Parsons Series . . . the clean geometry of a classic design, updated for the rigors of public furniture . . . the Parsons Series frames are made of massive three inch diameter, high-tensile strength steel tubing. Each section of tubing is mitred, welded and ground, forming the beautiful end frames. The support straps are formed of solid 3/8" steel bar, welded to the finished end frames and gusseted from below.

The finished frame elements are cleaned and powder-coated in a choice of six colors. Other colors are available on request.

The Parsons Series is available in three standard mounting configurations, free-standing, surface mount, or in-ground. Please specify mounting requirements.

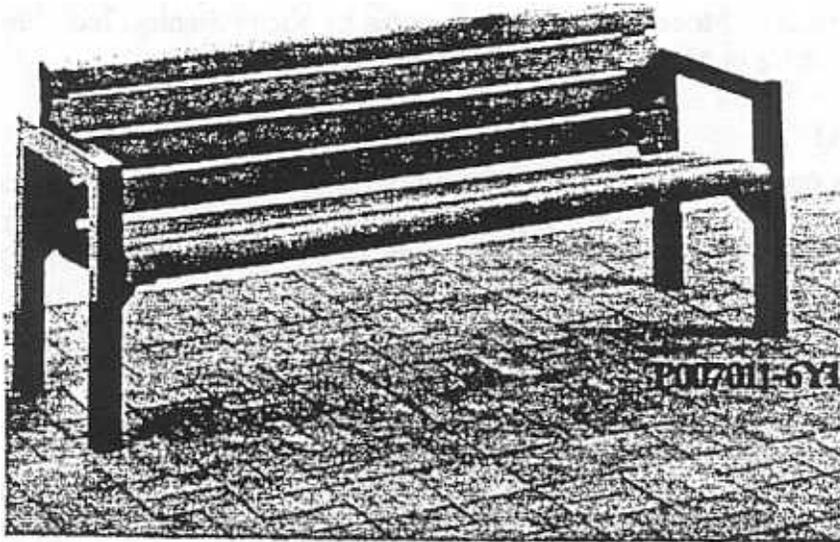
The Parsons Series . . . the perfect match of exposed steel and beautiful wood elements.



A standard T-24 displayed with the matching Parsons Series bench, the Model P-8, shown in 3 X 4 lpc. These matching bench and receptacle combinations offer strong color choices while retaining the natural warmth of wood. They blend together beautifully or can be matched individually to other amenities. For more information on the Parsons Series benches see the following two pages.

Model S-20: Stand-alone ash urn, with stainless steel ash tray.

LANDSCAPE DESIGN GUIDELINES



Clear All Heart Redwood Style Items

P007011-6X1	Bench with back, surface mount, 6' long, *black	215 lbs.
P007011-8X1	Bench with back, surface mount, 8' long, *black	255 lbs.
P007012-6X1	Bench with back, stationary mount, 6' long, *black	215 lbs.
P007012-8X1	Bench with back, stationary mount, 8' long, *black	255 lbs.
P007021-6X1	Bench without back, surface mount, 6' long, *black	135 lbs.
P007021-8X1	Bench without back, surface mount, 8' long, *black	154 lbs.
P007062-6X1	Bench with back, cantilevered stationary mount, 6' long, *black	213 lbs.
P007062-8X1	Bench with back, cantilevered stationary mount, 8' long, *black	254 lbs.
P00704-Y1	Moraine Planter, *green	225 lbs.

*For additional colors replace the "X" or "Y" in the model number with "I" for Red, "W" for White, "D" for Tan, "Y" for Green, "M" for Blue, "N" for Brown, or "X" for Black.

redwood and shall consist of (8) 3" x 4" boards.

The backless bench shall be 25" high x 15" deep with the boards consisting of (4) 3" x 4". All boards shall have all edges eased to a 1/4" radius. 3/8" x 2" stainless cap lag bolts used for attaching the boards to the frames. This bench is also available in an 8' length and with or without backs. This bench has the optional 16" bury mount. Optional wood: Douglas Fir

SPECIFICATIONS

Moraine Benches

Overall dimensions are approximately 32" high x 22" deep x 76" long. Average seat height above ground shall be 17". Bench frames will be fabricated from 3/16" x 2-1/2" square tubing and shall have a 3/8" x 4" flat surface plate welded to the bottom for mounting with anchor bolts (not included). The seat and back supports shall be made from 3/8" x 3" flat with stretchers fabricated from 3/8" x 1-1/2" flat. Caps shall be electrically welded to ends of all open tubing. Finish shall be electrostatically applied dry powder. Seats and back shall be clear all heart

LANDSCAPE DESIGN GUIDELINES

Ash Urn:

Ash urns shall be Model S-20 as manufactured by Victor Stanley, Inc. Metal finish shall be anodized bronze or Model #2812 by Columbia Cascade.

Bike Rack:

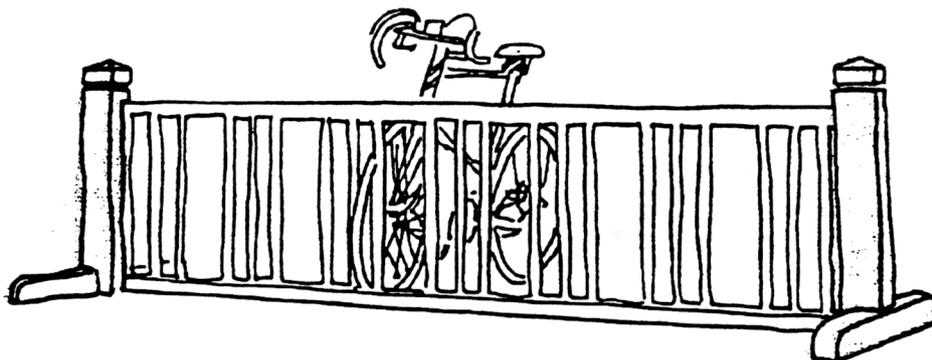
Bike racks shall be No. 9500 Series of wood and steel construction. Wood shall be construction Redwood and steel finish shall be anodized bronze. Manufactured by Litchfield Industries, 4 Industrial Drive, P.O. Box 317, Litchfield, MI 49252. Tel: 1 (800) 542-5282, or Model #6906 by Quality Industries, Inc., P.O. Box 765, Hillsdale, MI 49242-0765. Te: (800) 766-9458.

Pavilion Shelters:

Pavilion shelters shall be Model SQ 245 as manufactured W. H. Porter, Inc., 4240 136th Ave., Holland, MI 49424. Tel: 1-(616) 399-1963 or, the 24' Pittsburgh Square by Litchfield Industries.

Barbecue Pits:

Pits shall be Model #210-X by Iron Mountain Forge or Model #1560 Super Stove, by Quality Industries, Tel: 1 (800) 325-8828.



LANDSCAPE DESIGN GUIDELINES

TimberForm Renaissance		Model	Diameter	Height	Mounting	Material
Litter Container	Open Top	2811-OT	2' 2"	2' 10"	-E, -P or -L	Steel
	Flat Top	2811-FT	2' 2"	2' 10"	-E, -P or -L	Steel
	Dome Top	2811-DT	2' 2"	3' 3"	-E, -P or -L	Steel
	Ash/Dome Top	2811-AT	2' 2"	3' 2"	-E, -P or -L	Steel

Material: Color-coated steel.

Options: Mounting method (see page 27 for options) and coating color.

Notes: Includes matching color-coated 23-gallon steel liner and top.



2811-OT



2811-FT



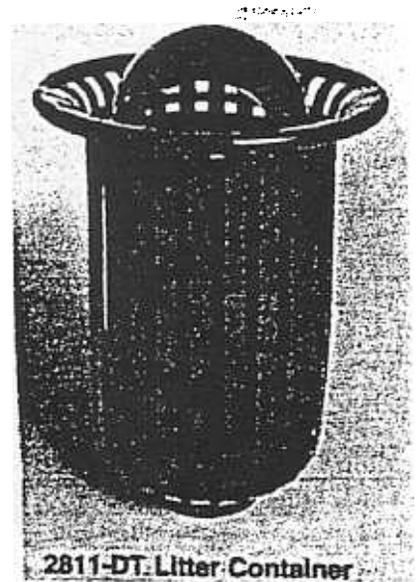
2811-DT



2811-AT



2812 Ash Receptacle



2811-DT Litter Container

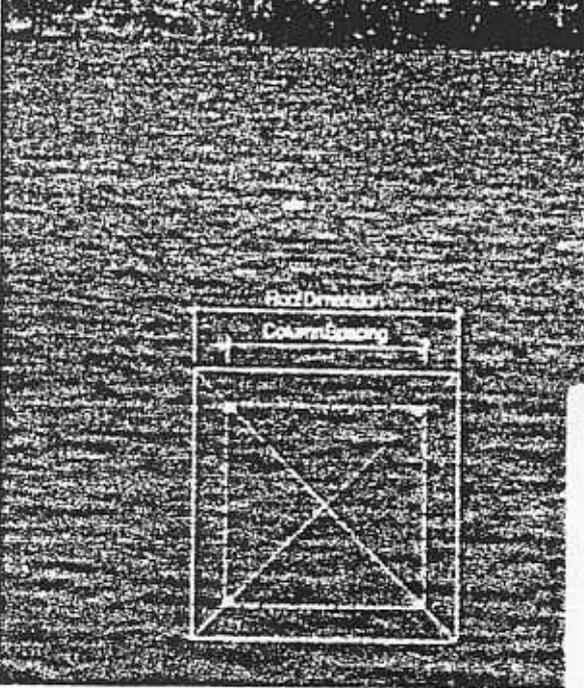
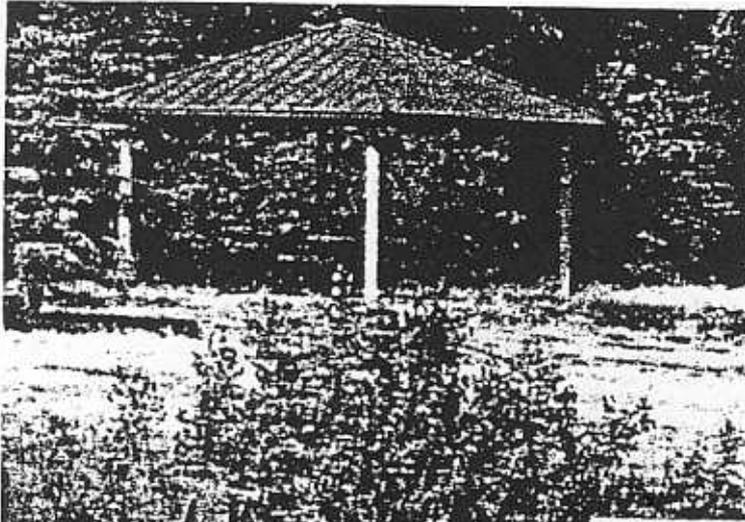
TimberForm Renaissance		Model	Diameter	Height	Mounting	Material
Ash Receptacle		2812	1' 2"	2' 8"	-E or -P	Steel

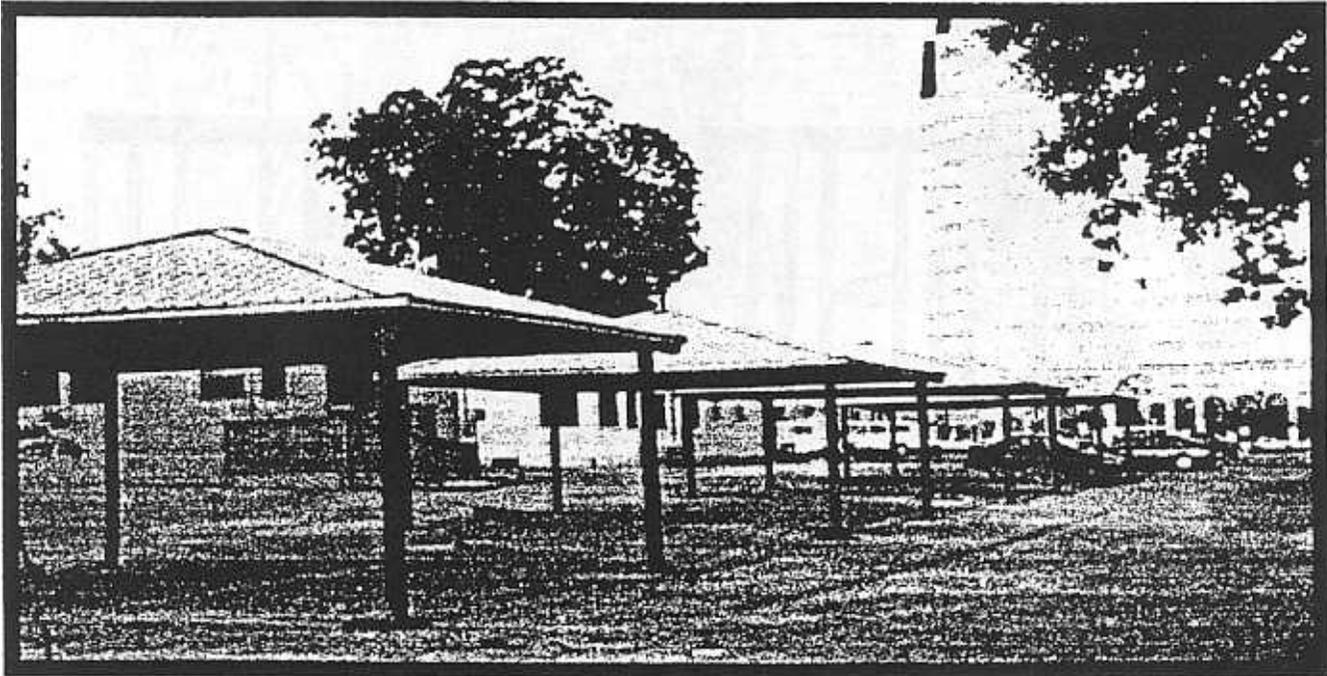
Material: Color-coated steel.

Options: Mounting method (see below for options) and coating color.

Notes: Includes matching color-coated steel ash tray and liner.

LANDSCAPE DESIGN GUIDELINES

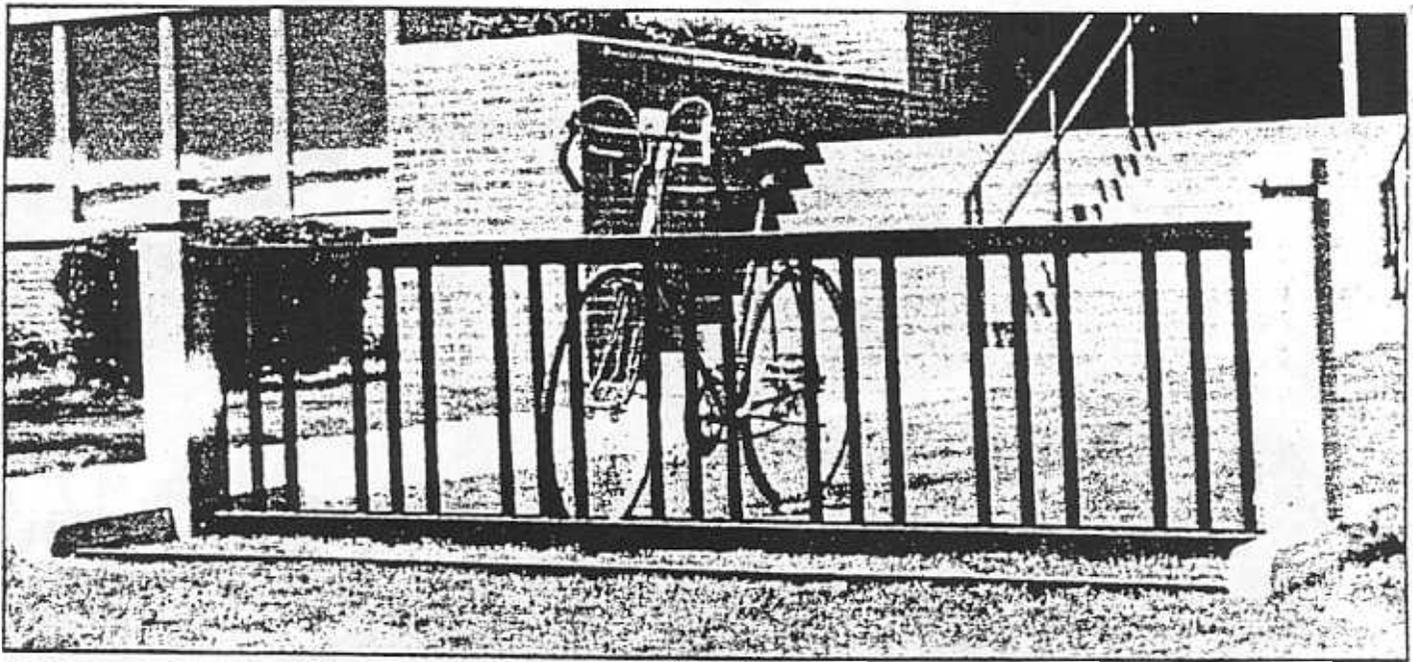




OPTIONS SHOWN: Special Column Colors

LOCATED AT: Austin, Texas

THE 24' ALL STEEL - PITTSBURGH SQUARE
BEAUTY AND SIMPLICITY WITH STRENGTH AND EFFICIENT COVERAGE.



NO. 9500 SERIES

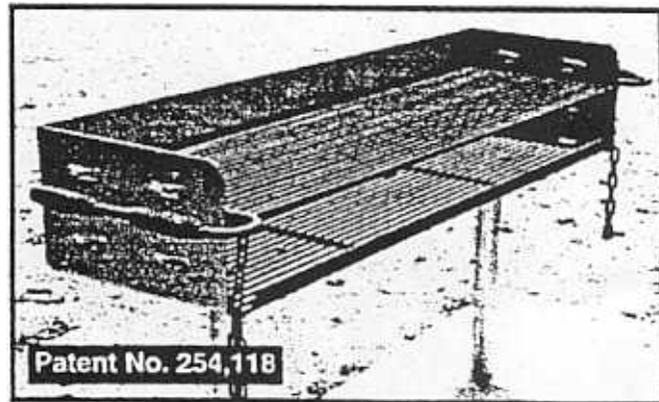
BIKE RACK

Shown in 10' length

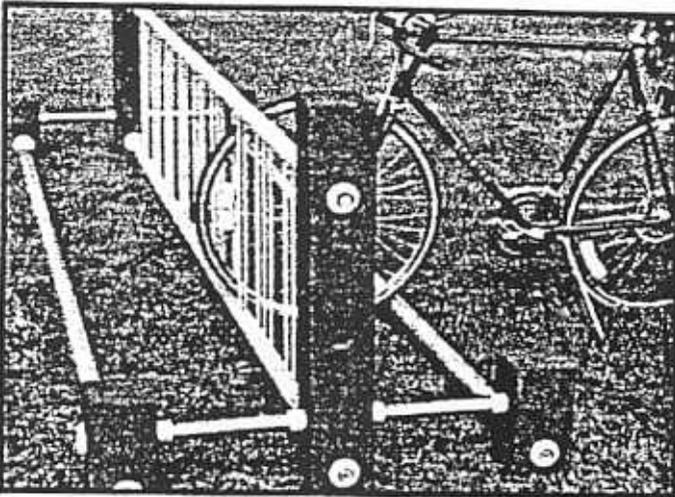
This heavy-duty bike rack is designed for 10-speed or standard bicycles and allows for bikes to be secured from both sides. This model can be bolted to concrete for added security. Ends and frames shall be fabricated from 6" x 6" and 4" x 6" pressure treated pine, milled and notched. All welded construction features 1 1/2" x 2 1/2", 14 gauge rectangular steel horizontal frame with 1" square, 14 gauge vertical members. Steel members primed and coated with our standard gloss brown enamel. Also available in treated pine with walnut brown oil stain or in construction heart redwood with flat black enamel metal frame. The 10' model will store 14 bikes comfortably from both sides. Also available in a 5' model, storing 8 bikes comfortably.

- Sides of 10 ga. galv. steel
- Bottom is heavy 7 ga. formed steel
- 840 sq. inches of cooking space
- Adjustable grill with flip-back feature

No. 1560 Super Stove, permanent.
wt. 201 lbs.....

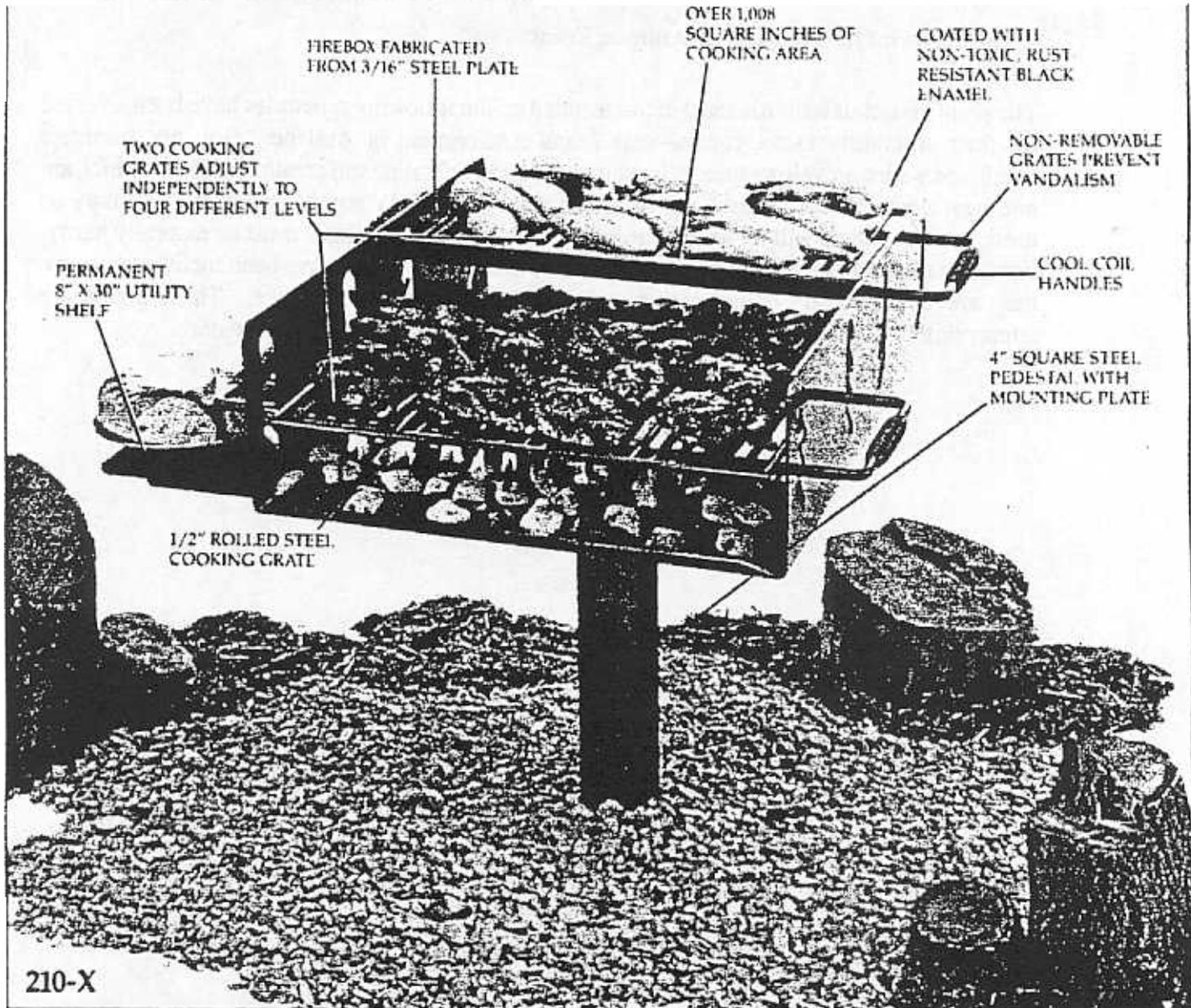


Patent No. 254,118



No. 6906 Wood Bike Rack, 10' long, double face, permanent, 4' x 12', wt. 247 lbs.....

LANDSCAPE DESIGN GUIDELINES



210-X Pedestal mount, group size grill with two adjustable cooking grates, stationary, painted black

216 lbs.

SPECIFICATIONS

Overall firebox shall be fabricated from 3/16" steel plate. Firebox shall be 28" wide x 36" long x 10" high, and shall be braced on bottom with four 3/16" triangular gusset plates. Each unit shall have two individually adjustable cooking grates. Each grate shall consist of twenty-seven 1/2" diameter steel bars, measuring 1-1/8" on centers, supported by two 5/8" diameter steel bars. Total cooking area per grate is 504 square inches (1008 square inches per unit). Each grate shall have four adjustments from 3-1/4" to 8-1/4" above fire bed. Grate handles shall have non-conductive spring grips. Pedestal shall be 4" x 4" square steel pipe complete with 10" x 10" x 3/8" base plate and four 1/2" x 6" anchor bolts and an easy installation template. Utility shelf shall be fabricated from 3/16" steel plate and measure 8" x 30". Finish shall be non-toxic, rust-resistant, black enamel.



LANDSCAPE DESIGN GUIDELINES

Plant Material for Dyess AFB, Abilene, Texas

The plant materials identified and recommended on the following schedules have been selected for their suitability to the central-west Texas environment of Abilene. Hot, dry summers combined with a prevailing breeze, low humidity and an alkaline soil create conditions which are not most favorable for general, domesticated plant growth. Where irrigation systems may be used, most all plants will do well. However, without irrigation, plants must be naturally hardy. For these reasons, the Mesquite, Desert Willow, Cactus and Yucca have been included because they are characteristic of the region and will thrive without assistance. These plants are appropriate to a landscape of plant materials which require a minimum of water.

LANDSCAPE DESIGN GUIDELINES

SELECTED PLANT MATERIAL

DYESS AIR FORCE BASE

ABILENE, TEXAS

STREET TREES

BOTANICAL NAME	COMMON NAME	Recom. Size	Root Treatment	Mature Size	Hardiness	Leaf Texture	Best Uses
<i>Carya illinoensis</i>	Pecan	2"-3" cal. 14'-16'	B&B	80'-100'	Very Hardy	medium	shade, canopy
<i>Fraxinus velutina</i>	Arizona Ash	1"-2" cal. 10'-12'	B&B cont.	40'	Hardy	medium	shade, canopy
<i>Platanus X acerifolia</i>	London plane tree	2"-3" cal. 14'-16'	B&B	70'-100'	Hardy	course	shade, canopy
<i>Ulmus crassifolia</i>	Cedar elm	2"-3" cal. 14'-16'	B&B	50'-70'	Very Hardy	medium	shade, canopy
<i>Quercus texana</i>	Texas oak	1"-2" cal. 10'-12'	B&B cont.	40'	Very Hardy	medium	shade, canopy
<i>Quercus stellata</i>	Post oak	1"-2" cal. 10'-12'	B&B cont.	50'	Very Hardy	medium	shade, canopy

LANDSCAPE DESIGN GUIDELINES

SELECTED PLANT MATERIAL

DYESS AIR FORCE BASE

ABILENE, TEXAS

ORNAMENTAL AND EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	Recom. Size	Root Treatment	Mature Size	Hardiness	Leaf Texture	Best Uses
ORNAMENTAL TREES							
<i>Cercis canadensis</i>	Eastern redbud	5 gallon	Container	to 40'	Very hardy	medium	accent, specimen
<i>Cercis texensis</i>	Texas redbud	5 gallon	Container	to 40'	Very hardy	medium	accent, specimen
<i>Chilopsis linearis</i>	Desert willow	5 gallon	Container	25'-30'	Very hardy	fine	accent, specimen
<i>Lagerstroemia indica</i>	Crapemyrtle	5 gallon	Container	15'-20'	Hardy	fine-med.	accent, specimen
<i>Prosopis glandulosa</i>	Mesquite	5 gallon	B&B cont.	to 40'	Very hardy	fine	accent, mass
<i>Rhamnus caroliniana</i>	Carolina buckthorn	5 gallon	B&B cont.	to 25'	Very hardy	medium	accent, specimen
EVERGREEN TREES							
<i>Arbutus xalapensis</i>	Texas madrone	5 gallon	B&B cont.	to 30'	Very hardy	medium	screen, wind break
<i>Ilex vomitoria</i>	Yaupon holly - tree form	5 gallon	Container	to 25'	Hardy	med.-fine	Screen, accent
<i>Juniperus ashei</i>	Ashe juniper	5 gallon	Container	to 25'	Very Hardy	fine	screen, wind break
<i>Pinus eldarica</i>	Afghan pine	5 gallon	Container	to 60'	Hardy	fine	screen, accent

LANDSCAPE DESIGN GUIDELINES

SELECTED PLANT MATERIAL

DYESS AIR FORCE BASE

ABILENE, TEXAS

SMALL SHRUBS

BOTANICAL NAME	COMMON NAME	Recom. Size	Root Treatment	Mature Size	Hardiness	Leaf Texture	Best Uses
SMALL SHRUBS (1' to 3' typical mature size)				H = Height W - Width			
<i>Ilex vomitoria nana</i>	Dwarf youpon holly	2 gallon	Container	H-3', W-3'	Hardy	fine	foundation, mass
<i>Abelia X grandiflora</i> 'Compacta'	Compact abelia	3 gallon	Container	H-3', W-3'	Hardy	fine, medium	Mass, accent
<i>Berberis thunbergii</i> 'Atropurpurea Nana'	Crimson Pygmy barberry	2 gallon	Container	H-2', W-2'	Hardy	fine	Mass, accent
<i>Juniperus procumbens</i>	Procumbens juniper	2 gallon	Container	H-1.5', W-10'	Hardy	fine	mass, foundation
<i>Buxus var.</i> (No Japanese)	Boxwood	2 gallon	Container	H-2', W-2'	Hardy	fine, med.	mass, foundation
<i>Pyracantha koidzumii</i> 'Santa Cruz'	Santa Cruz pyracantha	5 gallon	Container	H-2.5', W-5'	Hardy	fine, med.	Mass, accent

LANDSCAPE DESIGN GUIDELINES

SELECTED PLANT MATERIAL

DYESS AIR FORCE BASE

ABILENE, TEXAS

SHRUBS

BOTANICAL NAME	COMMON NAME	Recom. Size	Root Treatment	Mature Size	Hardiness	Leaf Texture	Best Uses
MEDIUM SHRUBS (3' to 6' typical mature size)							
<i>Euonymus japonica</i> 'Aurea variegata'	Gold Spot euonymus	5 gallon	Container	4' to 6'	Protected from winter winds	medium to course	accent, specimen
<i>Euonymus japonica</i> 'Silver King'	Silver King euonymus	5 gallon	Container	4' to 6'	Protected from winter winds	medium to course	accent, specimen
<i>Euonymus kiautschovia</i> 'Manhattan'	Manhattan euonymus	5 gallon	Container	4' to 6'	Protected from winter winds	medium to course	accent, specimen
<i>Ilex cornuta</i> 'Burfordii nana'	Dwarf Burford holly	5 gallon	Container	3' to 6'	Hardy	medium	Hedge, accent, specimen
<i>Juniperus chinensis</i> 'Pfitzeriana'	Pfitzer juniper	5 gallon	Container	3' to 5'	Hardy	fine	Hedge, mass
<i>Leucophyllum frutescens</i> 'compacta'	Compact Texas sage	5 gallon	Container	3' to 5'	Very hardy	fine	Mass, accent
<i>Nandina domestica</i>	Heavenly bamboo	5 gallon	Container	3' to 5'	Hardy	fine, med.	Accent, specimen
<i>Yucca aloifolia</i>	Spanish dagger	5 gallon	Container	1' to 10'	Very hardy	medium	Accent, mass

LANDSCAPE DESIGN GUIDELINES

SELECTED PLANT MATERIAL

DYESS AIR FORCE BASE

ABILENE, TEXAS

SHRUBS

BOTANICAL NAME	COMMON NAME	Recom. Size	Root Treatment	Mature Size	Hardiness	Leaf Texture	Best Uses
LARGE SHRUBS (6' to 12' typical mature size)							
<i>Ilex cornuta</i> 'Burfordii'	Burford holly	5 gallon	Container	5' to 8'	Hardy	medium	Hedge, accent, foundation
<i>Ilex X 'Nellie R. Stevens'</i>	Nellie Stevens holly	5 gallon	Container	15' to 20'	Hardy	medium	Hedge, accent, specimen
<i>Ilex vomitoria</i>	Youpon holly	5 gallon	Container	15' to 20'	Hardy	medium	Hedge, accent
<i>Lagerstroemia indica</i> (dwarf var.)	Crapemyrtle	5 gallon	Container	5' to 8'	Hardy	medium	Accent, specimen
<i>Ligustrum japonicum</i> 'texanum'	Waxleaf ligustrum	5 gallon	Container	6' to 10'	Hardy	medium	Hedge, accent, foundation
<i>Photinia X fraseri</i>	Fraser's photinia	5 gallon	Container	8' to 10'	Hardy	medium, course	Hedge, accent, mass

LANDSCAPE DESIGN GUIDELINES

SELECTED PLANT MATERIAL

DYESS AIR FORCE BASE

ABILENE, TEXAS

GROUND COVERS

BOTANICAL NAME	COMMON NAME	Recom. Size	Root Treatment	Mature Size	Hardiness	Leaf Texture	Best Uses
<i>Juniperus procumbens</i>	Procumbens Juniper	5 gallon	Container	H-1', W-10-15'	Hardy, sun, dry, alkaline soil	Fine	Mass, Large area
<i>Santolina Chamaecyparissus</i>	Gray Santolina	1 gallon	Container	H-1-2' W-2-4'	Hardy, sun, dry	Fine	Mass, Accent
<i>Vinca Major</i>	Vinca, Periwinkle	1 gallon	Container	H-1' W-18'	Hardy, sun/shade	Med.	Mass, Large area
<i>Cotoneaster horizontalis</i>	Cotoneaster	5 gallon	Container	H-2' W-5-8'	Hardy, sun, dry, but well drained	Fine	Mass, Large area
<i>Opuntia huifusa</i>	Prickly Pear	1 gallon	Container	H-2-3' W-varies	Hardy, sun/dry, alkaline soil	Coarse	Mass, Accent

LANDSCAPE DESIGN GUIDELINES

NOTE:

TREE SHALL BE PLANTED 1" HIGHER THAN PREVIOUS EXISTING GRADE



GUY WIRE ATTACHMENT DETAIL

LANDSCAPE TIES

2" X 2" X 96" WOOD POSTS PAINTED OR STAINED DARK BROWN OR 5'-6" STEEL POSTS PAINTED FLAT BLACK (USE 2 POSTS PER TREE)

3" MULCH

BACKFILL WITH EXCAVATED SOIL (TILL TO REMOVE CLODS)

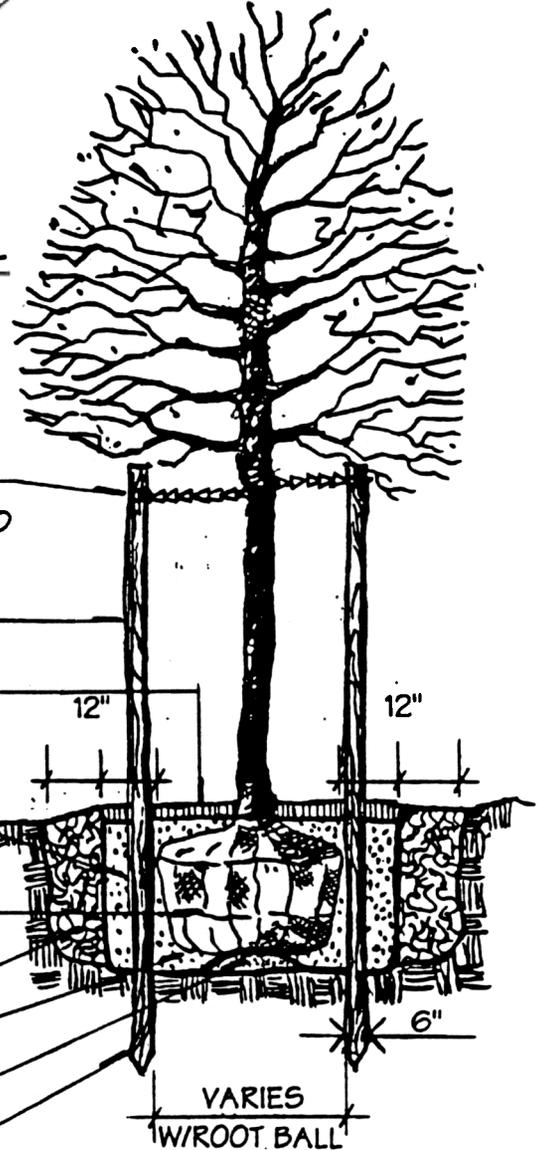
CUT AND REMOVE BURLAP FROM ROOT BALL

LOOSEN SOIL AROUND PLANTING PIT

EXCAVATE 6" BELOW ROOT BALL

HAND COMPACTED FILL

POSTS TO EXTEND 12" BELOW TREE PIT INTO UNDISTURBED GROUND

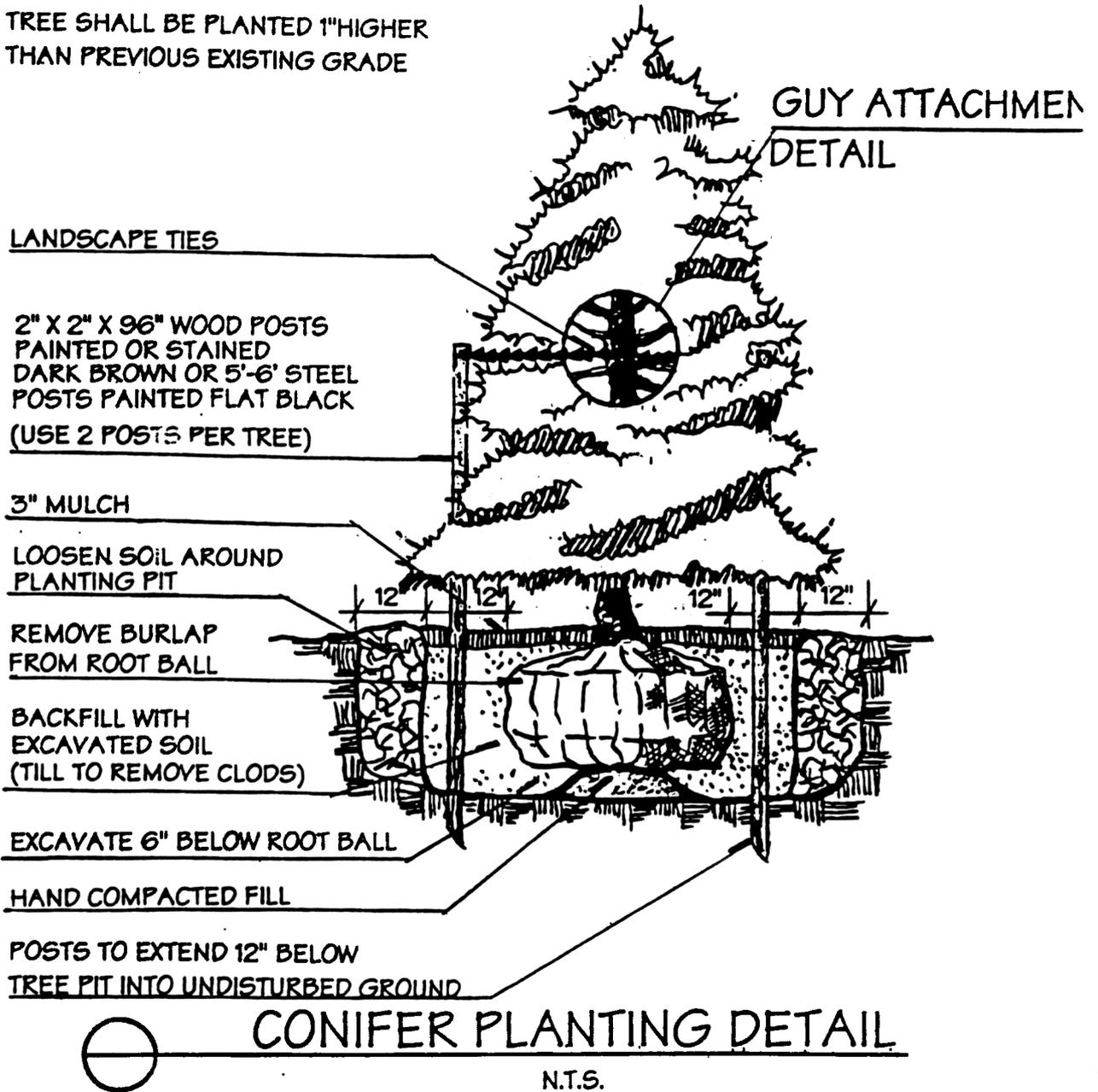


TREE PLANTING DETAIL

N.T.S.

LANDSCAPE DESIGN GUIDELINES

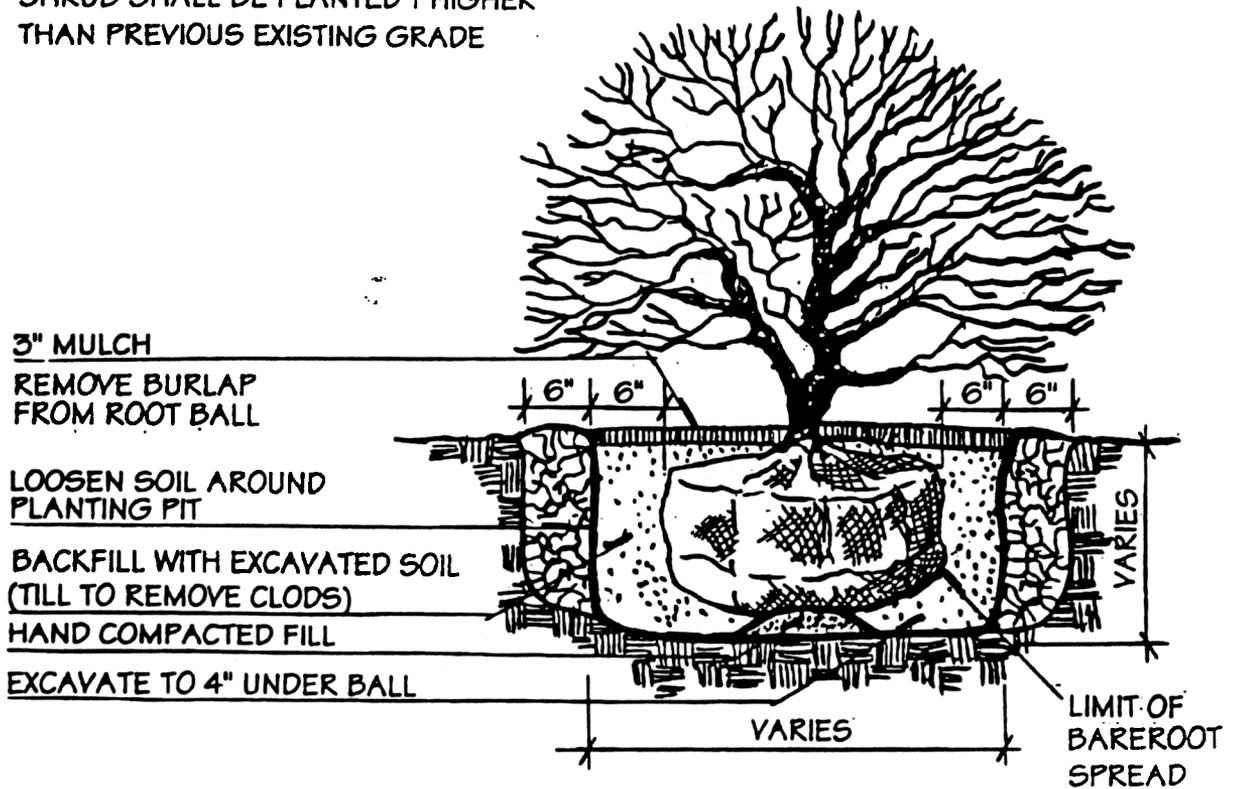
NOTE:
TREE SHALL BE PLANTED 1" HIGHER
THAN PREVIOUS EXISTING GRADE



LANDSCAPE DESIGN GUIDELINES

NOTE:

SHRUB SHALL BE PLANTED 1" HIGHER THAN PREVIOUS EXISTING GRADE

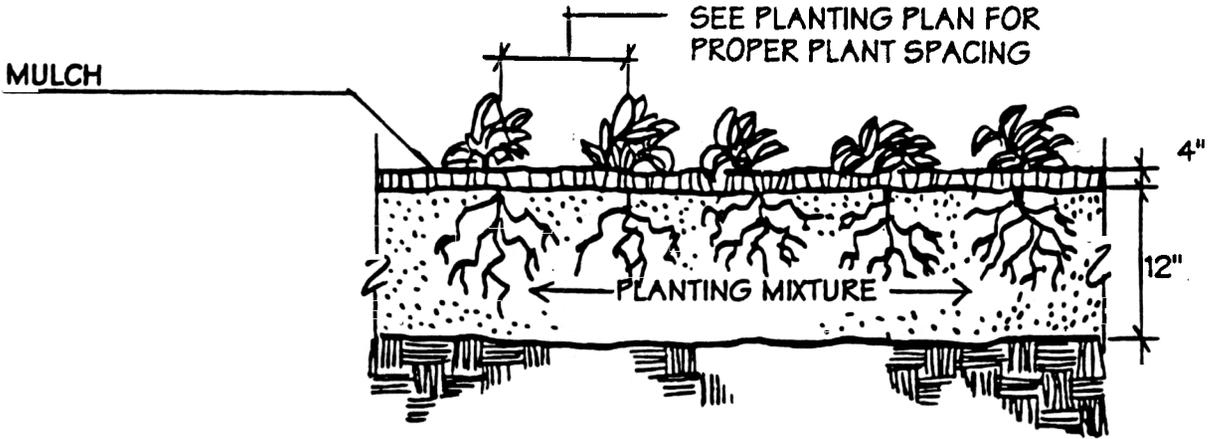


SHRUB PLANTING DETAIL

N.T.S.

LANDSCAPE DESIGN GUIDELINES

NOTE:
SET PLANTS WITH BOTTOM LEAVES AT GRADE AFTER MULCHING



○ GROUND COVER PLANTING DETAIL
N.T.S.