

Grand Forks Air Force Base

architectural compatibility plan



Vision

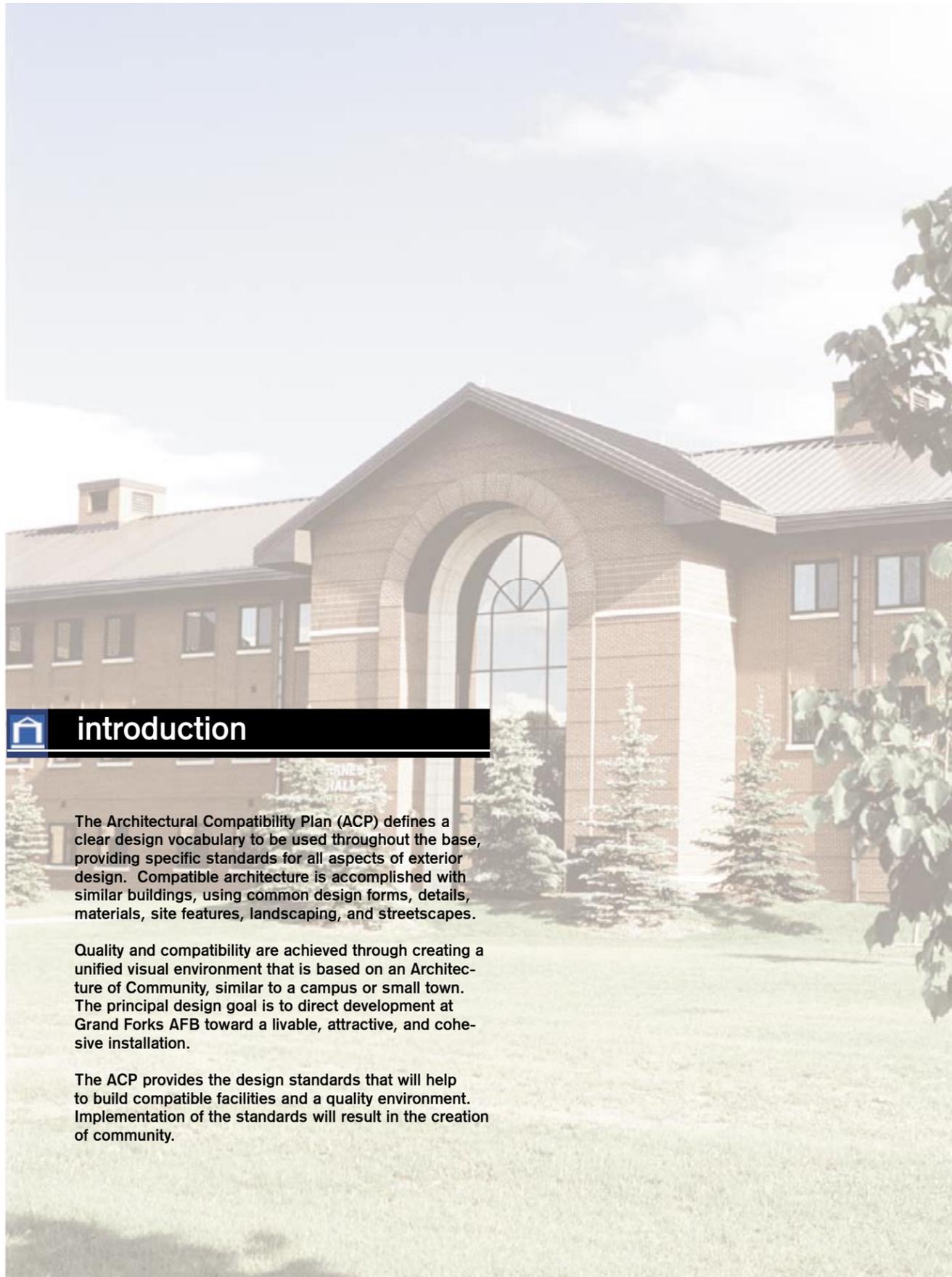
An Architecture of Community is the long-range vision for Grand Forks Air Force Base. This is a vision of excellence displayed in a high-quality corporate image for facilities, the landscape, and the environment. It is expressive of the architectural character, climatic factors, and cultural influences typically associated with the plains of North Dakota.

Architectural compatibility and Community can be achieved by understanding the vision for the base and by refining its design vocabulary. Successful examples of high quality facilities, landscaping, and streetscapes are presented in this Architectural Compatibility Plan (ACP). These examples depict the design standards that will ensure compatibility and achieve the vision of excellence.



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 introduction

The Architectural Compatibility Plan (ACP) defines a clear design vocabulary to be used throughout the base, providing specific standards for all aspects of exterior design. Compatible architecture is accomplished with similar buildings, using common design forms, details, materials, site features, landscaping, and streetscapes.

Quality and compatibility are achieved through creating a unified visual environment that is based on an Architecture of Community, similar to a campus or small town. The principal design goal is to direct development at Grand Forks AFB toward a livable, attractive, and cohesive installation.

The ACP provides the design standards that will help to build compatible facilities and a quality environment. Implementation of the standards will result in the creation of community.

Purpose

The purpose of the ACP is to define design standards for buildings, site development, and streetscapes that serve to integrate the visual character throughout the base.

The ACP will help ensure consistent quality design decisions by commanders, planners, architects, landscape architects, engineers, maintenance staff, and residents. It promotes clear, concise communication between the Grand Forks AFB personnel and design professionals.

This plan applies to self-help initiatives, small projects, and operations and maintenance activities as well as large construction efforts.

The ACP is referenced from and supports the Grand Forks AFB General Plan as a key component plan.

How to Use This Plan

The ACP defines three architectural settings: Basewide, Flightline / Industrial, and Family Housing (see the map below).

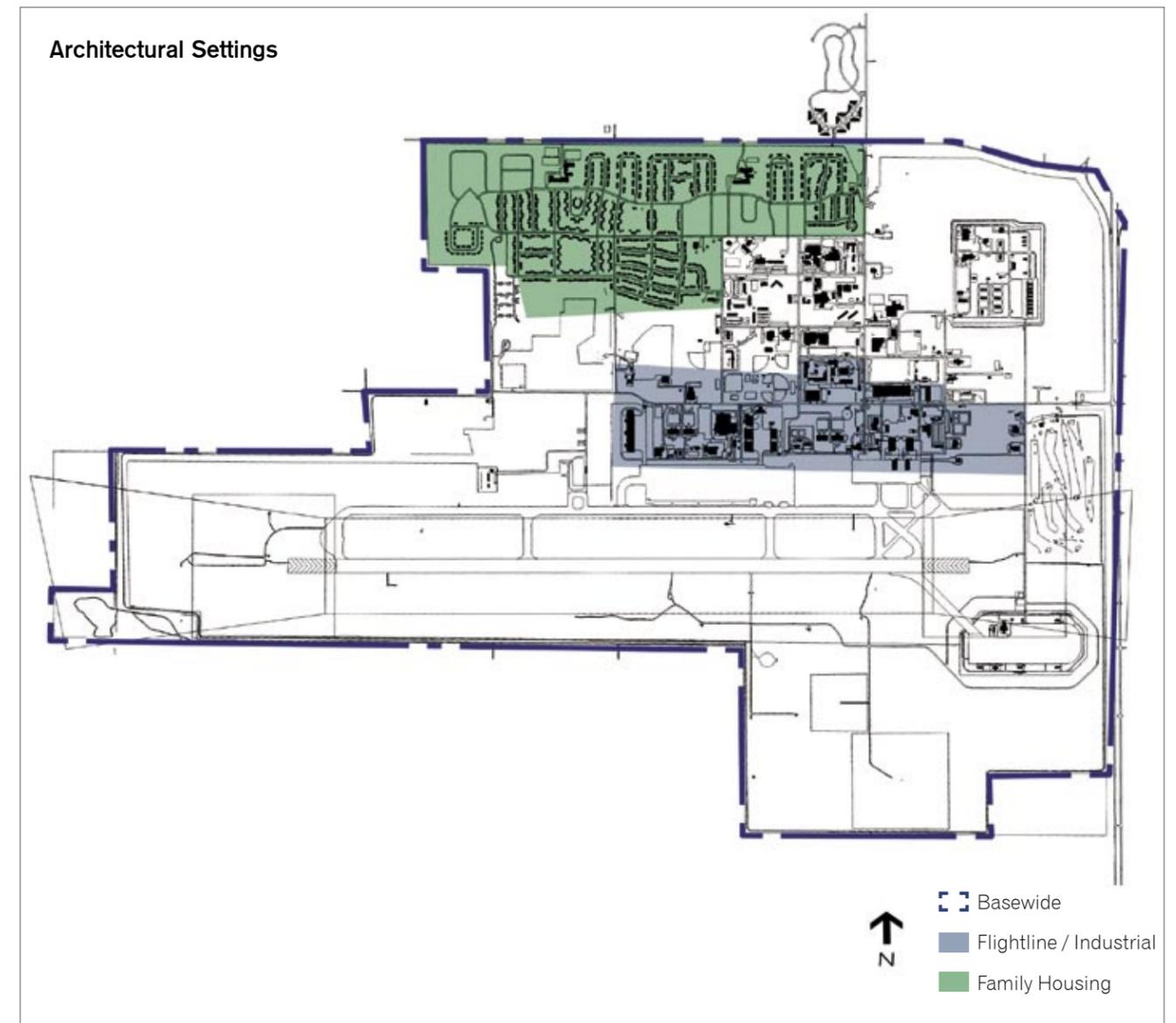
General and specific design standards for all buildings are included in the Basewide setting. Basewide standards shall be applied to all projects. When a project is located in the Flightline / Industrial or Family Housing setting more specific standards from those Sections of the ACP shall be applied.

The Implementation Section of the ACP outlines key elements to ensure success in designing and constructing excellent facilities. It discusses the traditional design process, highlights the importance of site analysis, and describes the role of the Architectural Compatibility Review Board (ACRB). The Implementa-

tion Section defines methods to facilitate the coordination and approval of design submittals.

Finally, the Appendices provide additional information including an index; a list of building materials, site amenities, colors, and landscape materials; and a checklist for the ACRB and project personnel. Use the Appendices in conjunction with the general text of the ACP as a quick reference to specific materials and color specifications.

A poster is available upon request that displays photographic examples of the Grand Forks AFB community.





design standards

Design standards for buildings and supporting elements are outlined in this section. These standards encourage architectural compatibility using common forms, materials, colors, and architectural details.

The first priority is to achieve architectural compatibility for Grand Forks Air Force Base as a whole. The second priority is compatibility within an architectural setting or sub-area. Outstanding designs for individual buildings or facilities are the third priority. The goal is to design excellent facilities that satisfy all of these priorities.



basewide

Grand Forks AFB has a foundation for architectural unity. The existing architecture depicts a predominant materials palette and a consistency of material detailing. The following design standards are applicable to the entire installation, to both host and tenant organizations.

Site planning and site development issues contribute significantly to the architectural context. Building setbacks and the scale and definition of space are as fundamental to creating architectural compatibility as consistent facade designs. Develop exterior spaces to promote pedestrian use and activity and to connect buildings and the landscape. Use the landscape with other visual elements to create greater continuity.



■ BUILDINGS

Achieving compatibility among buildings is essential in creating an Architecture of Community. Develop facilities with a common design theme and character to enhance architectural compatibility. Unity is the goal, not conformity.

Style / Form

- Emphasize horizontal proportions on building elements.
- Rectangular elements are the standard for major building masses. Use clean, simple, contemporary forms and avoid angular elements in plan.
- Develop a strong relationship between buildings and exterior spaces.
- Articulate building facades to create areas of shade and shadow.
- Use brick with precast or block accents in walls combined with sloped roofs and modest eaves.

Scale / Massing

- Reduce the monumental appearance of large structures by developing smaller massing components.
- Combine functions whenever possible to avoid a proliferation of small independent structures.
- Break up the mass of large structures to allow for slope roofs to the maximum extent.

Existing Buildings

- Use low-maintenance materials.
- Match the existing materials for addition / alteration projects unless a significant change to the exterior envelope is included.
- Whenever possible bring existing facilities into compliance.

■ WALL SYSTEMS

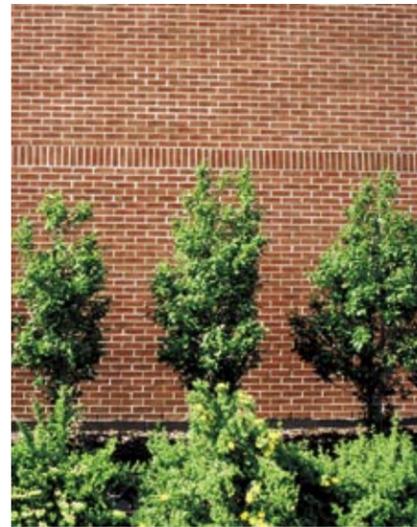
Walls provide the principal details and architectural features for buildings. These contribute significantly to the character of the base. Limit the palette of materials that is to be used. Consistent use of colors and materials will bind the base together and reduce visual clutter caused by too much diversity.

Brick

- Use red brick in a running bond pattern with tooled joints. Precast and block or tan brick-pattern accents are encouraged.
- Warm-colored tiles may be used in special-use areas as accents with ACRB approval.
- Brick parapet end walls are preferred to be finished with precast copings. Dark bronze metal copings may be used in low-visibility areas.
- Brick may be used when appropriate for lintels and sills. Detailing should emulate bearing wall construction.
- Conceal expansion joints with downspouts or locate them at transitions in the wall such as at pilasters or reveals.
- Use portland cement mortar.
- Efflorescence in masonry work is unacceptable. Measures must be provided to prevent it.

Architectural Precast

- Precast is appropriate for lintels, sills, belt courses, wall caps, and friezes.
- Other facade elements made of precast should be used sparingly to ensure that brick remains the prominent material.
- Off-white is the standard color for precast concrete.
- Detailed designs and patterns may be cast into the pieces to create an individual character for a single facility or complex.



Other Materials

- A traditional 3-coat stucco system is allowed only with ACRB approval. Scratch and Brown coats should be cement-based mixes with the finish coat being a synthetic-based plaster. Sand finish is the standard.
- Linen White is the standard color for stucco.
- Limit stucco to accents such as friezes and soffits.
- Limit pre-finished metal wall panels to large industrial / flightline facilities and special applications only with ACRB approval.
- Factory finish all exposed metals with a powder-coat application such as Kynar-500.
- Joint sealants shall match the color of the darker adjacent surfaces. When adjacent surfaces are the same color use a darker joint sealant in the same color.

Accents / Detailing

- High-visibility facilities shall demonstrate their relative importance visually through accents and detailing.
- Architectural accents such as belt courses, pilasters, and columns or other contextual details are encouraged to break up flat facades and add visual interest.
- Use of glazed tile, split-face CMU, and similar materials must be approved by the ACRB.

Wall Components

- Organize and coordinate placement of all mechanical, electrical, lighting, communication, and other building components including downspouts into the overall architectural design.
- Integrate vertical components such as downspouts and control joints into the overall design organization.
- Do not expose conduits, cables, and piping on walls.
- All gas meters, fire bells, vents, louvers, and electrical / communication boxes shall match the wall surface color on which the equipment is mounted.
- Conceal these items from prominent locations of the building.

■ ROOF SYSTEMS

Roof color, material, and form are prominent features and play a significant role in architectural compatibility. Ensure these are comparable in shape, slope, material, and color throughout the base.

Configuration

- Use 3:12 to 5:12 gabled roofs as the primary building form for all facility types.
- Use gabled elements to provide weather protection at main entrances.
- Flat roofs with continuous parapet walls are discouraged and should be limited to special use facilities when approved by the ACRB.
- Use overhangs proportional to the size and height of the building.
- Low-sloped roofs are only allowed for larger structures in combination with hipped roofs, or to match existing conditions on renovation / alteration projects.
- Protect secondary entrances from falling snow and ice. Use snow guards when sidewalks are next to a building.

Materials and Color

- Use standing-seam metal roofing on sloped roofs. 16" wide panels with a 2" seam height is the standard.
- Roofing shall be dark bronze. Soffits shall match the roof color.
- Roof flashing shall match the roof material and color.
- Stepped flashing at the intersection of roofs and walls shall match roof color.
- Membrane roofing for low-sloped roofs may only be used with ACRB approval. A warranted minimum slope of 1/2 : 12 is required.

Parapets / Copings

- Sloped parapets with horizontal flanks on gabled ends should be the same slope as the roof.
- Use precast coping on all brick parapet walls. Top of copings should be sloped.
- All precast copings should have raked joints filled with elastomeric joint sealants.
- Limit painted metal copings to match existing conditions.



Fascias, Gutters, and Downspouts

- Incorporate continuous metal fascias that are proportional to match the scale of the roof. General height is 8" for all sloped roofs.
- Do not use turn-down standing seam metal fascias.
- Fascia finish shall match the roof color when occurring with metal roofing.
- Gutters on sloped roofs are encouraged and shall be factory finished to match the roof color.
- Integrate downspouts with architectural details and use dark bronze inside and out on brick walls.
- Interior roof drains and open scuppers are allowed only with approval of the ACRB. Do not use internal gutters.
- Provide concrete splash blocks at grade draining or connected directly to the storm drainage system.

Roof Vents and Elements

- Minimize, consolidate, and organize roof penetrations on the least visible side of the building.
- Louver grilles at gabled end walls are acceptable.
- PVC pipes and other roof elements must be finished to match the roof color.
- Do not use rooftop mechanical units. When required and approved by ACRB, minimize the negative visual effects with screening to match the roof color.
- Consider the use of dormer vents to conceal and screen exhaust fans.
- Make mechanical vent sizes and shapes consistent with architectural elements.
- Avoid roof-mounted antennas.

■ ENTRANCES

Entrances act as a transitional element from exterior to interior and provide opportunities to create a focal point on a facade. They establish a user's first impression and delineate the importance of the building by the size and architectural detailing of the entrance structure.

General

- Ensure the building entrance is clearly visible and highlighted as a prominent feature.
- Orient pedestrian entrances to the south or southeast as often as possible. Avoid north entrances.
- Projected entrance features with gabled roof forms are preferred.
- Create enclosed vestibules and weather-protected transition spaces at entrances.
- Integrate handicapped ramps into designs.

Primary Entrances

- Provide well-lit entrances and overhead enclosure for weather protection.
- Provide integrated weatherproof lighting and a weatherproof ground fault outlet.
- Use accent pavers in approach walkways or at entry plazas.
- Locate newspaper, vending machines, and similar elements out of view to avoid visual clutter.

Secondary Entrances

- Reflect the character of the primary entrances but to a lesser extent.
- Recessed entries are acceptable to provide areas of shade and weather protection.

Service Entrances and Emergency Egress

- Minimize visual impact with proper siting and access.
- Provide unobtrusive service entrances that are physically and visually separated from primary and secondary entrances.
- Incorporate egress structures such as stair towers into design.
- Use landscaping and screen walls to screen and separate loading docks.
- Do not use canopies at emergency egress doorways.

Arcades

- These may be used as an extension of the building's entrance.
- Where provided, integrate arcades with the building's form, materials, and detailing.

Drop-offs and Porte-cocheres

- Limit to special, high profile facilities and embellish corresponding amenities, design accents, and landscaping.
- Design as an integral part of the building entrance using the same style, form, and materials.

Handrails

- Finish railings dark bronze with a powder-coated surface to match roof color.
- Integrate handrail designs with the facility design.

Plazas and Courtyards

- The use of plazas and courtyards is encouraged at primary and secondary entries.
- Use concrete surfacing with special joint patterns and/or colored concrete accent pavers with ACRB approval.
- Incorporate landscaping and lighting into the design.



■ WINDOWS AND DOORS

Windows and doors create a complement in the facade and must be considered as individual details and for overall arrangement, order, and scale.

Openings

- Use window type, size, placement and mullion pattern to emphasize the overall architectural design.
- Limit larger expansions of glass to main entrances.
- Use regularly spaced windows to establish contextual rhythms.
- Set windows back at least 3" from the building facade.
- Incorporate operable windows with screens where possible.
- Transom windows / elements above doors / windows are encouraged.

Doors and Frames

- Use dark bronze anodized aluminum storefront systems with thermal-break construction.
- Door, frame, and hardware colors shall match and be dark bronze.
- Limit hollow metal frames to security doors, utility rooms, and outlying sites.
- All secondary-use and service doors and frames shall be dark bronze on brick walls and match adjacent surfaces on painted facilities.
- Sealants applied adjacent to windows and doors shall match frame color.
- Use automated doors in high-traffic areas.

Glazing

- Use clear low-emissivity (low-e) dual-pane insulated glass.
- Mirrored, spandrel, and plastic glazing shall not be used.
- Glass block is acceptable with ACRB approval.
- Translucent insulated panels are acceptable. Normally use white panels and dark bronze frames.

Clerestories and Skylights

- Develop clerestories or low-profile skylights integrally with the building design using translucent fiberglass panels for natural lighting.
- Clerestory windows shall be either glass or translucent insulated panels and must be protected from snow accumulation.

■ ANCILLARY STRUCTURES

Consistency in the color, materials, and form of ancillary structures provides continuity in the outdoor spaces on the base and reduces overall visual clutter.

General

- Coordinate the siting of all ancillary structures with each other and adjacent buildings.
- Use non-weathering, corrosion-resistant materials.
- Landscape ancillary structures consistent with larger structures.
- Integrate the structure with landscaping, and other site elements.
- Do not use temporary buildings.
- Minimize the use and number of storage buildings, and consolidate in low-visibility areas.

Pavilions

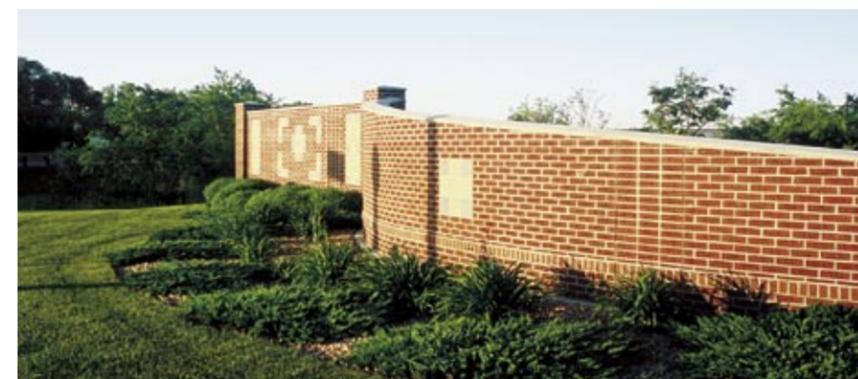
- Locate pavilions centrally among several facilities to create multipurpose use.
- Construct new pavilions with masonry or dark bronze steel columns and hipped, standing seam dark bronze metal roofs at high-visibility locations.
- Use manufactured pavilions in low-visibility locations only.
- Wood gazebos are not allowed.
- Bike storage pavilions should match the materials of the adjacent facility.
- Do not use enclosed bike storage lockers.

Passenger Waiting Shelters

- Use pre-manufactured structures and standing seam metal roofs.
- Provide lighting for safety and cove heaters for comfort.
- Provide glazing front and back to allow for views and wind protection for the user.
- Use brick pavers or scored pavement patterns as accent.

Kiosks

- Locate kiosks at high public use areas such as shopping areas, housing areas, and recreation areas.
- Design kiosks with metal roofs, brick, and precast concrete details compatible with surrounding architecture.



■ SCREENS AND ENCLOSURES

Screens and enclosures help to minimize the visual impact of undesirable features and provide separation and security where necessary. Both architectural and landscape screens – separately and in combination – can be applied to achieve visual continuity throughout the base.

General

- Where possible, use landscaping instead of walls for screening.
- Use landscaping to soften walls, fences, and screen dumpsters.
- Locate utility components in the least visible area with adequate access to minimize the need for screening and enclosures.
- Ensure screens are high enough to conceal equipment, vending machines, and utilities.

Walls

- Use brick with a precast sloping cap when adjacent to or within 30 feet of a building.
- Generally, do not attach screen walls to buildings.

- Construct free-standing garden walls of red brick with off-white precast accents.
- Do not place screen walls immediately adjacent to roadways or sidewalks.
- Walls adjacent to buildings shall have matching materials.

Fences

- Use decorative metal fencing for high visibility sites.
- Use standard brick columns with brown metal fence infill for screening.
- Dark brown vinyl-covered chain link fence in industrial and low-visibility sites is allowed with ACRB approval.
- Perimeter fencing shall respond to the site context and use combinations of vinyl covered, chain link, decorative metal, or brick per ACRB direction.
- Wood is allowed only in the Family Housing setting.

Dumpster Enclosures

- Locate dumpsters to minimize visual impact.
- Use brick with burnished block accents and a precast sloping cap for wall construction.
- In high-visibility locations provide dark bronze metal gates to screen dumpsters.
- Provide concrete-filled steel tube protective bollards painted dark bronze.
- Provide concrete pads and access aprons.
- Include landscaping areas and provisions for pedestrian access.

Force Protection

- Integrate security walls with the building architecture.
- Use a combination of walls, bollards, and tension cables with landscape beds.
- Minimize the visibility of all force protection devices with landscaping and integral designs.
- Jersey Barriers are allowed only with ACRB approval. Do not paint.

■ LANDSCAPING

Use landscaping to enhance facilities and to unify the base. Organize landscape features to connect individual facilities to walkways, roadways, and open spaces. Incorporate freeform, naturally flowing lines in all major landscape elements.

Maintenance

- Establish a maintenance program.
- Use only approved planting materials as specified on the Landscape Materials listing Appendix A4 - A5.
- Allow shrubs to mass naturally and avoid ornamental pruning.
- Use tan colored stone mulch to increase moisture retention and control weed growth.
- Use wood mulch in flower beds.
- Provide sprinkler systems in planting beds and high-visibility areas.
- Use xeriscaping practices to minimize maintenance and water usage.

Edging

- Separate and define all planting areas with sod cut edging.
- Concrete mow strips may be used in high-visibility areas.
- Raised planting beds constructed of brick or split face block may be used in pedestrian areas.
- Wood timber edging is not allowed.

Landscape Screens

- Where possible, use landscaping instead of walls for screening.
- Reduce the negative visual impacts of parking areas and unsightly features with landscape screening.
- Use a three-tier landscaped screen that combines ground covers, shrubs, and small trees.

Roadways

- Primary roadways use same species, deciduous and coniferous street trees equally spaced to coordinate with light standards.
- Secondary and access roadways use a more random spacing of mixed species in clusters and / or groupings at focal points.
- Plant street trees on the building side of sidewalks.



Parking Areas

- Reduce the visual impact of large parking areas with landscape buffers and parking islands.
- Set back shrubs a minimum of 3 feet from curbs to protect them from snow removal operations.
- Use street trees in medians and islands to create shade and interest.
- Fill in between trees with low shrubs, flowers, and ground covers. Allow areas for pedestrian cross circulation.
- Use shrubs in groupings around the perimeter of parking areas to soften views from the street.
- Avoid the use of hedges outlining parking areas.
- Use shrubs and landscaped berms to soften the impact of parking areas.

Facility

- Use landscaping elements that complement building architectural features and proportions.
- Highlight building entries and architectural features and screen unattractive building features such as utility risers or service areas.
- Mix evergreen and deciduous palette of shrubs for seasonal interest.
- Design randomly spaced plantings and tree massing to fill areas between facilities.
- Use ground covers within planting beds.

Open Spaces

- Use turf for all recreation areas, parade grounds, lawns, and open fields.
- Create undeveloped natural areas using native grasses and shrubs.
- Incorporate maintenance-free ground cover materials in areas of steep slope or areas that are difficult to maintain.
- Follow Grand Forks Air Force Base tree-removal policy.

■ WALKWAYS AND PATHS

Develop a consistent pedestrian circulation system of walkways and paths to enhance the community. Connect passenger waiting shelters, outdoor plazas, parks, and other pedestrian gathering sites into the overall circulation network. Commonly traveled routes need proper lighting for safety and convenience. Walkways and paths need to comply with handicapped accessibility requirements. Concrete paving should be used to provide a neat appearance and prevent erosion.

Sidewalks

- Provide walkways a minimum of 6 feet wide along all primary, secondary, and access roadways.
- Maintain a minimum 4-foot wide landscaped parkway between curb and sidewalk.
- Provide curvilinear walks for dormitory and housing areas.
- Size sidewalks appropriately for the visual scale of the facility and the amount of pedestrian traffic volume.
- Use natural colored concrete with a broom finish and troweled edges.

Crosswalks and Ramps

- Ensure that all paths are a minimum 10 feet wide and lead to the safest crossing point possible, and cross roadways at 90-degree angles.
- Crosswalks should be 10-feet wide, or the width of the approaching sidewalk if greater.
- Incorporate ADA accessible curb ramps and crosswalk markings into all crosswalks.
- Construct textured crosswalks of colored stamped concrete with natural gray concrete edging at high-visibility locations in parking lots and streets to improve safety.
- Construct all concrete curb ramps with flared curb ramps and waffle stamp pattern or pavers.
- Provide for adequate drainage away from the ramp or by drainage grates.

Plazas and Courtyard Paving

- Use stamped colored concrete paving as a unifying theme for plazas and courtyards.
- Use concrete edges to highlight field color within a design.
- Use consistent manufacturer standard patterns for concrete stamping.

Recreation Trails

- Provide a minimum 6-foot paved width in a free-form configuration that follows the contours or other natural features.
- Separate the trail system from vehicular traffic by a minimum of 10 feet, and ensure handicap accessibility.
- Take advantage of landscaped wind breaks to define trails.
- Incorporate activity generators, interpretive signs, and recreation opportunities.
- Provide a 5-foot by 10-foot paved rest area approximately every mile, as well as intermittent shade. Include a bench and litter receptacle at each location.
- Use asphaltic concrete paving for trail system. In highly natural settings use compacted, crushed fines.



■ ROADS

Develop the transportation network to provide a consistent experience throughout the base. An organized system of primary, secondary, and tertiary arteries must provide sequential order with each hierarchy of roadway being designed consistently.

Primary

- Primary roadways are developed as boulevards and contain two lanes of traffic in each direction often with planted medians.
- Minimize stops and turns, and eliminate on-street parking.
- Parking and service access curb cuts are discouraged.
- Keep parking areas and buildings away from the road edge.



Secondary

- Secondary roadways are feeder streets from access roads to primary roads.
- On-street parking is discouraged.
- Keep off-street parking areas away from the road edge.
- Minimize the number of curb cuts from driveways and area entrances.

Tertiary

- Tertiary roadways are the narrowest and slowest public streets and provide access to individual sites or parking areas.
- On-street parking and curb-cuts for driveways, parking lot entrances, and service drive entrances are allowed.
- Maintain capability for large vehicles such as fire trucks and moving vans.

Service Drives

- Service drives provide access for service vehicles to certain parts of a building or site.
- Combine service drives for several facilities where possible.
- Maintain a setback between the building and service drive.
- Minimize the visual impact of service drives through correct placement of drives and landscape screening.

Paving

- Use asphalt paving for all primary, secondary, and access roadways.
- Use concrete paving in loading areas, dumpster enclosures, and sites used by heavy vehicles.
- Gravel surfacing may be used on patrol roads and outlying sites only.
- Incorporate a concrete apron where gravel roads meet paved roads.
- All patching shall match adjacent materials.

Curb and Gutter

- Comply with Base CE standards for all 6-inch integrated concrete curb and gutter for all roadways in developed areas.
- Patrol roads and service drives in outlying areas may not require curb and gutter, with ACRB approval.
- Wheel stops in lieu of curbs are not allowed.
- Do not paint concrete curbs.

■ PARKING

Develop functional lots with clear circulation and a positive appearance that complements the facility. Provide a pleasant transition from the parking area to the facility.

General

- Reduce large parking areas with landscaped islands and planting strips.
- Parking layout must address accessibility, maintenance, and safety issues.
- Provide proper lighting for safety and convenience.
- Combine parking areas for adjacent facilities.
- Avoid locating parking directly in front of primary building entrances.
- Provide greenbelt between parking lots and buildings in compliance with force protection standards.
- Avoid parking on roads or within 40 feet of an intersection.
- Use the 90-degree parking configuration when possible.
- Provide a greenbelt of 20 feet minimum from parking lots to streets.
- Locate automobile electrical outlets for block heaters at perimeter if possible.
- Provide 4" wide white striping for all pavement markings.
- Do not paint handicapped parking symbols on asphalt.

Medians and Islands

- Provide planting medians in access drives and islands at the end of each row of parking to facilitate snow-removal operations.
- Coordinate layout for light poles with the islands and minimize their number to provide the required illumination.
- Provide designated areas for pedestrian cross traffic.

Reserved Parking

- Minimize number of reserved spaces.
- Designate spaces by rank or title with curb-mounted signs.

Paving

- Asphalt paving is the standard.
- Use concrete where required for heavy vehicles, motorcycle parking, and where fuel spills may occur.

Curb and Gutter

- Use concrete curbs and gutters for parking areas.
- Asphalt curbs, wood timbers, and precast wheel stops are prohibited.
- Do not paint concrete curbs.
- Locate handicap-accessible parking spaces close to building entries with curb cuts and ramps.



■ SIGNS

Signs are an important and positive element in the overall base appearance. Their purpose is to clearly communicate necessary or helpful information for directions, identification, and customer service without adding visual clutter.

General

- Use concise, clear signing in accordance with Air Force, AMC, and Grand Forks AFB Sign Standards.
- Minimize the number of signs used for each facility.
- Signs must be consistent in style, placement, color, and language.
- Avoid mottoes, super graphics, or individual titles on buildings or identification signs.

Color

- Use dark brown for backgrounds with reflective white lettering on metal placards unless otherwise noted.
- Use dark brown square metal posts.
- Finish back of sign and fastening devices dark bronze.

Identification Signs

- Limit the use of monument signs to entry gates, headquarters buildings, housing neighborhoods, and special use areas / facilities with ACRB approval.
- Construct monument signs with stucco finish and use pin-mounted Helvetica letters.
- Limit the use of mottoes, individual titles, or insignia.
- Incorporate landscaping, accent lighting, and / or paving.
- Facility identification signs with street addresses are generally free standing and not applied to facility facades.
- Display facility numbers in one location - at the back or side corner of buildings, coordinated with architectural features.
- Building-mounted signs or individual letters with corporate logos are allowed for commercial facility signs only with ACRB approval.

Direction Signs

- Use to identify highly frequented or special interest destinations and street names.
- Display the Air Mobility Command logo decal on the left of all street name signs.

Regulation Signs

- Use for traffic control, parking, and base warnings.
- Traffic control signs must follow the Manual on Uniform Traffic Control Devices administered by the Federal Highway Administration for color and display requirements.
- Handicapped parking signs must follow AMC Exterior Sign Standards for color and display requirements.
- Base warning signs must adhere to the Air Force Sign Standard for color and display requirements.



■ SITE FURNISHINGS

The common use and style of site amenities will further unify the base, providing a recognizable theme of continuity throughout. Reflect the basewide standard regardless of where site furnishings are placed.

General

- Select site furnishings from the list on page A1.
- Use black metal benches and furnishings with a factory applied powder-coat finish for all items.

Seating / Benches

- Provide seating along walkways, near building entries, and in courtyards and plazas.
- Place benches within a paved area.

Litter / Ash Receptacles

- Place surface-mounted or portable litter and ash receptacles at building entrances, pathways, outdoor seating, and picnic areas.
- Locate these to be functional, yet visually unobtrusive.

Planters

- Minimize the use of freestanding planters.
- When used, locate planters in conjunction with other exterior elements.
- Use planters that match ash and litter receptacles in design.

Bike Racks

- Provide bicycle-parking areas for all facilities. Combine areas for densely sited building.
- Place bike racks on concrete pads in accessible locations near established bike routes and near secondary building entrances.
- Increase the numbers of available bike racks in residential and recreational areas.
- Screen bicycle parking areas with landscaping or screen walls.
- Align bollards at sites having multiple racks.

Barbecue Grills

- Limit built-in grills to recreational areas, dormitories, and fire stations.
- Use materials that complement adjacent facilities.
- Placement and design of built-in grills must be approved by the ACRB.



Picnic Tables

- Use factory finished, recycled plastic picnic tables with metal frames.
- Do not use at administration yard areas or industrial facilities.
- Provide mid-morning to late-afternoon shade for all picnic tables.
- Limit tables to outdoor picnic or dining areas; and group to allow for large parties or individual family outings.

Bollards

- Use bollards to protect buildings, equipment, and people from vehicle impact and to restrict access.
- Use an 8-inch diameter, factory finished aluminum, domed-top bollard as the standard.
- Use same style bollard with single-function luminaire at pedestrian areas, pathways, and entrances.
- For force protection use an 8-inch diameter, concrete filled, steel pipe. Cap lighted force protection bollards with a pre-manufactured, domed-top, single luminaire.
- For bollards protecting equipment or buildings from vehicle damage, paint to match adjacent surfaces.
- Use 3" reflective tape on bollards in auto traffic areas.

Tree Grates

- Use bronze tree grates at all formal plazas and courtyards set into concrete paving. Accent with brick pavers.

Playground Equipment

- Provide consistent-style pre-manufactured play equipment at parks, family housing areas, child development centers, community centers, recreational areas, and TLFs.
- Place equipment with safe ground surfacing, benches, litter receptacles, and landscaping for shade.
- Provide adequate pedestrian circulation paths to play areas.

Flag Poles

- Use a brushed aluminum pole, mounted on a concrete base.
- Create a sense of place at flag pole locations with landscape or plaza design.

■ LIGHTING

Exterior lighting is a system that directly impacts the visual qualities of the base. By day, the fixtures and poles add visual character and rhythm to the streetscape. By night these amenities contribute to the perception of safety and comfort. Use common components throughout the base.

General

- Use underground utility service to lighting fixtures.
- Use high-pressure sodium lamps for all applications, except for Hozzapple and H Streets (metal halide).
- Photometrics are required for all applications.

Streets

- All classifications of roadways will use the same luminaries, poles, and mounting height.
- Use factory finished dark bronze cobra-head luminaires and poles for all roadways.
- Equally space poles on alternating sides of all roadways

Parking Areas

- Use arm-mounted luminaries in factory finished dark bronze.
- Use multiple luminaries on poles to reduce the number of poles.
- Coordinate pole placement with parking island locations.

Walkways and Paths

- Provide pedestrian-scaled lighting fixtures throughout housing area and along recreation trails and sidewalks not adjacent to roadways.
- Equally space light fixtures for sidewalks on same side of walk.

Mounting Heights

- Control spillover light near residential areas.
- Keep mounting heights low and consistent. Standard streetlights are 40 feet - those over 40 feet high require special review by the ACRB.

Architectural and Accent

- Incorporate recessed, wall-mounted luminaries to wash light across plaza, paving, and stairs.
- Minimize and integrate into the building design the use of building-mounted fixtures for general illumination of service yards and outdoor spaces.
- Uplight architectural, landscape, and entrance features to emphasize importance and hierarchy.



■ UTILITIES

Use consistent utility components and place electrical services and building feeds underground to reduce overhead visual clutter.

Utility Lines

- Place all utility lines underground.
- Do not cut pavements to install utilities.

Utility Structures

- Avoid free standing utility structures where possible.
- Locate pad-mounted equipment in less visible areas and screen with landscaping or screen walls.

Fire Hydrants

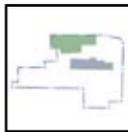
- Locate fire hydrants at least 5 feet away from other structures. Maintain a 30-inch clear area.
- Paint hydrants dark brown.

Utility Components

- Carefully place and organize equipment and services.
- Locate mechanical equipment on the least public side of the building.
- Screen mechanical equipment with landscaping materials or screen walls.
- If equipment is placed within 10 feet of a building, paint dark brown unless within 10 feet of a light-colored surface, then match the wall color.
- All equipment (ground-mounted transformers, pad-mounted switch gear, sectionalizing terminals, etc.) placed farther than 10 feet shall be factory finished dark brown.
- Minimize the use of all externally attached meters and control devices. If used on brick walls, paint dark brown.
- Exterior surface-mounted utility conduits, lines, or equipment are not allowed (except meters and control devices).
- In remote locations paint freestanding pipes and above-ground utility system components dark brown.

Communications

- Collocate coaxial and telephone exterior components and entry points.
- Align all communication components with one another on the horizontal and vertical plane.



flightline / industrial

The flightline encompasses aircraft hangars and maintenance facilities. Buildings should be designed with forms, materials, and color palettes similar to those of the Basewide area, but with simplified detailing more befitting their function. Large buildings – common to this area – require careful design and orientation to avoid unappealing monolithic facades.

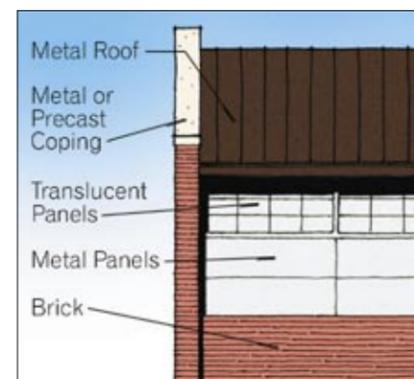
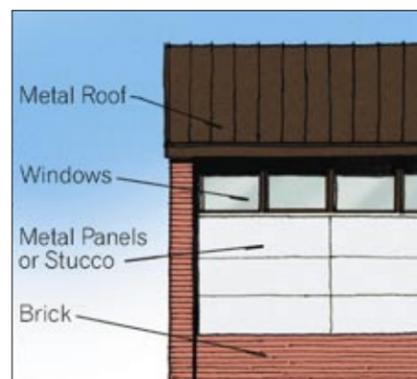
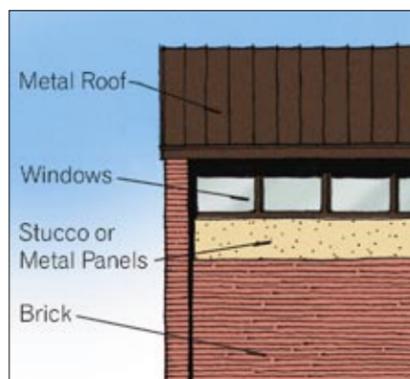


BUILDINGS

- Observe all horizontal and vertical safety restrictions along the flightline.
- Consolidate functions where possible to eliminate smaller, individual buildings.
- Integrate large masses and volumes with smaller ones to minimize the scale.
- Only use pavement to buildings when necessary.
- Lower the apparent height of hangars and warehouses by modulating building elevations with submasses, clerestories, openings, material changes, and architectural detailing.
- Avoid large, flat facades.
- All industrial facilities require curbs and bollard protection.

WALL SYSTEMS

- Use brick or a combination of brick and stucco (EIFS) or metal panels on smaller administrative facilities.
- On larger facilities use a combination of brick and flat metal panels.
- Use a horizontal expression of metal panels.
- Cap brick parapet walls with metal or precast concrete coping.
- Do not use metal panels as the sole material for any structure.
- Locate visible vents and louvers as planned design elements; avoid random placement.
- Vents and louvers are to match the color of adjacent surfaces.



ROOF SYSTEMS

- All structures must use gable or parapet-gable roof forms.
- Low-slope roofs are allowed only for very large volumes or accent sub-masses with ACRB approval.
- Metal roofing for large industrial buildings may be of the minimum slope recommended by the manufacturer.
- Brick structures may use sloped parapet end walls with horizontal flanks.
- Use membrane roofing where minimal-slope roofs are permitted.
- Lower appendages and entries shall have hipped or gabled roofs.

WINDOWS AND DOORS

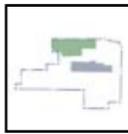
- Clerestory windows are encouraged to increase natural light and to break up the mass of the facade.
- Windows, doors, and frames must be dark bronze on brick structures with thermal break construction.
- Primary personnel entrance doors shall have full glass panels or glass sidelights.
- Secondary-use doors, such as service and exit-only doors shall match adjacent wall surfaces.
- Large hangar doors must match the wall color.

LANDSCAPING

- Use landscaping to soften and reduce the scale of larger facilities.
- Minimize the use of deciduous trees and shrubs to prevent leaf buildup along the apron and runway.
- Reduce the density of landscaping by grouping landscape elements at entries and high-visibility areas.

SCREENS AND ENCLOSURES

- Integrate physical security measures into the architectural design process.
- Coordinate security walls with the design of adjacent facilities or the immediate context.
- Use screen walls and defined roadways in selected locations to direct and limit facility access.
- Painting of Jersey barriers is prohibited.



family housing

Residential architectural settings should express a neighborhood image that distinguishes them from the remainder of the base. Achieving architectural compatibility within the setting relies on the use of consistent building materials, site furnishings, and landscaping. Residents are afforded some opportunities to use the standards creatively to express individual pride of place in and around their homes.

GENERAL

- Organize units into cohesive neighborhoods with defined public space along the street. Minimize the use of cul-de-sacs.
- Match the existing styles in housing renovation alteration projects.
- Construct new community facilities following the basewide design standards.

WALL SYSTEMS

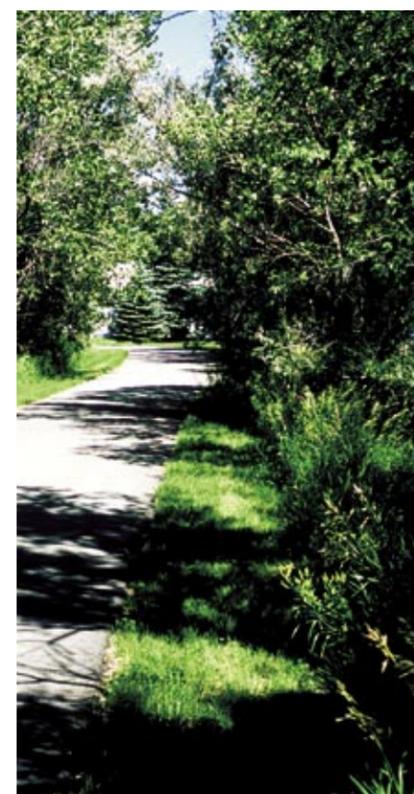
- Use trim and accent colors that are compatible with the field colors and that highlight significant building features.
- Alternate exterior color schemes randomly using the paint and siding colors specified on page A1.

ROOF SYSTEMS

- Use roof configuration and color to link the Family Housing setting to the rest of the installation.
- Use gabled or hipped roofs with at least a 4:12 pitch.
- Consider the use of dormers.
- Use shingles with an architectural profile to unify the neighborhood scheme.
- Use fascias, gutters, downspouts, and soffits finished to match the trim.
- Use factory-finished, corrosion resistant materials.

ANCILLARY STRUCTURES

- Select standard-sized passenger waiting shelters according to the number of people using them.
- Use passenger waiting shelters that are sized to accommodate the number of people using them.
- Use the base standards for materials and form.



LANDSCAPING

- Employ informal landscaping to integrate new with existing housing areas and to improve the overall community setting.
- Add plantings for shade and privacy and develop foundation plantings.
- Use mixed species in an informal planting style.
- Use randomly spaced plantings and tree massing.
- Landscape the perimeter edges of recreational areas and common areas.
- Use landscaped berms to soften major arterial roads and screen undesirable views.
- Develop a street tree program.

SCREENS AND ENCLOSURES

- Provide a consistent style, color, and material of all screens and enclosures.
- Use wood fencing for backyard privacy.
- Use white vinyl fencing around trash enclosures.

ROADS

- Enhance streetscapes with landscaping, walkways, and site furnishings.
- Use road features such as smaller radius corners and narrow street widths to reduce traffic speeds.

WALKWAYS AND PATHS

- Emphasize pedestrian and bicycle circulation and use to connect housing to community facilities.
- Provide seating and other basewide site furnishings along walkways.
- Use stamped concrete paving to emphasize major crossings.
- Concrete pavers for patios are encouraged.

NEIGHBORHOOD ENTRIES

- Construct neighborhood entrance signs reflecting the architectural character of the setting.
- Provide accent landscaping, lighting, and concrete paving.

LIGHTING AND UTILITIES

- Provide pedestrian-scale lighting fixtures throughout housing areas.
- Provide street lighting that matches the basewide standard for primary roads.



implementation

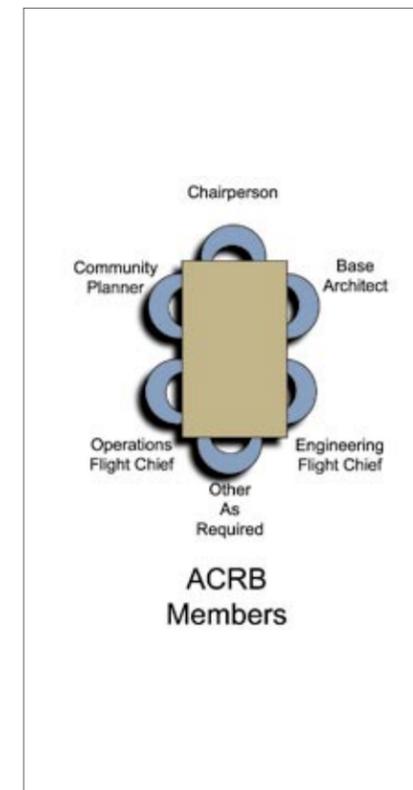
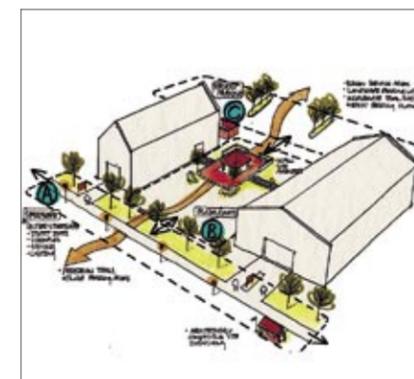
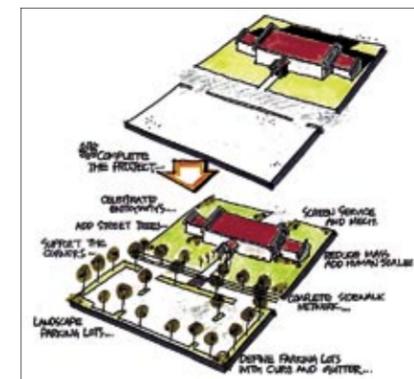
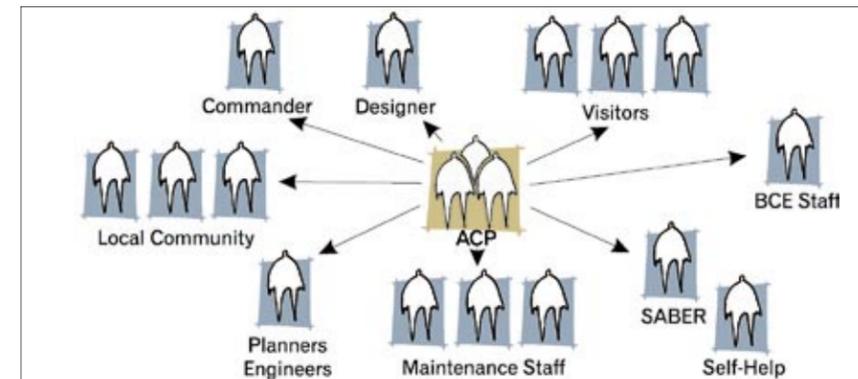
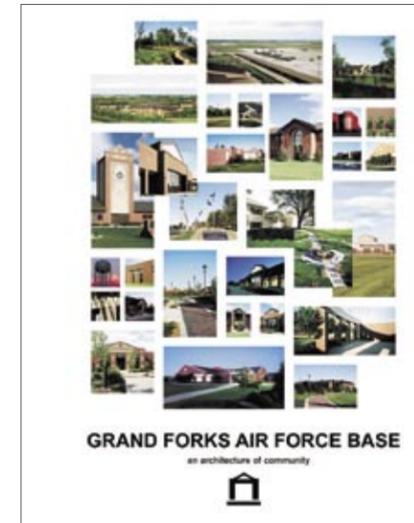
The ACP is a multipurpose tool that shall be used throughout the entire planning, programming, and design process, from inception to project completion for any project on base.

The ACP is implemented by the Base Civil Engineer.

While architectural designers are the primary users of the plan, it must also be used by project managers, programmers, planners, engineers, maintenance and operations personnel, self-help personnel, SABER personnel and the Architectural Compatibility Review Board (ACRB).

Any items purchased for the exterior of buildings – including those purchased with impact cards – must conform to the requirements prescribed in the ACP.

In the next three pages, key elements in the implementation process are highlighted.



Key Elements

Adhering to key elements of the implementation process leads to success in designing excellent facilities that will be compatible with and a part of the whole community.

- Distribute the ACP.
- Establish the Architectural Compatibility Review Board (ACRB).
- Hire good designers.
- Respect the General Plan.
- Process proper submittals.
- Cross-reference all planning and design documents to the ACP.

Distribute the ACP

Distribution of the plan should be as wide as possible. On base, provide copies to commanders of all major units and tenants, the civil engineering squadron commander, operations, branch chiefs, base architect, and community planner. Provide copies to the major command and headquarters representatives.

Establish the ACRB

The ACRB is the installation approval authority for all designs and visual features on the installation.

- The ACRB is organized by the Base Civil Engineer (BCE).
- The chairperson as appointed.
- Members include the base architect, community planner, chief engineer, and others as determined by the chairperson.
- The base architect, engineering disciplines, and project manager review designs regardless of ACRB involvement.
- The ACRB meets as required or as a subgroup of the installation Facilities Board (FB).
- Most projects, regardless of size, must be approved by the ACRB. (The chairperson makes the determination on review requirements).
- Design projects are submitted to the ACRB by the base-assigned project manager (see project checklist on page A6 for submittal requirements).

ACRB Project Checklist

All projects and service contracts are to be reviewed by the ACRB using the checklist on page A6. The Base project manager is responsible for providing the design checklist to the ACRB for completion.

Hire Good Designers

Ensure the involvement of design oriented personnel in the A-E selection process.

- Select A-E firms that are sensitive to and understand architectural compatibility.
- The AF project manager provides copies of the ACP to the designer before design begins.

Respect the General Plan

All new projects must agree with the goals and objectives outlined in the installation master plan to ensure that the siting of new projects is compatible with adjacent facilities.

Process Proper Submittals

All architecturally sensitive design projects are reviewed by the ACRB. This includes Requirements Documents, Concept Design, and Final Design submittals.

Submittals shall include the required information and data at the appropriate times, and the process shall allow adequate review time.

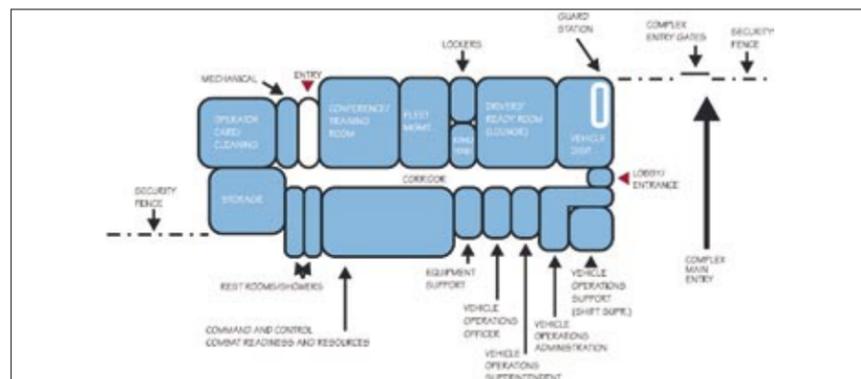
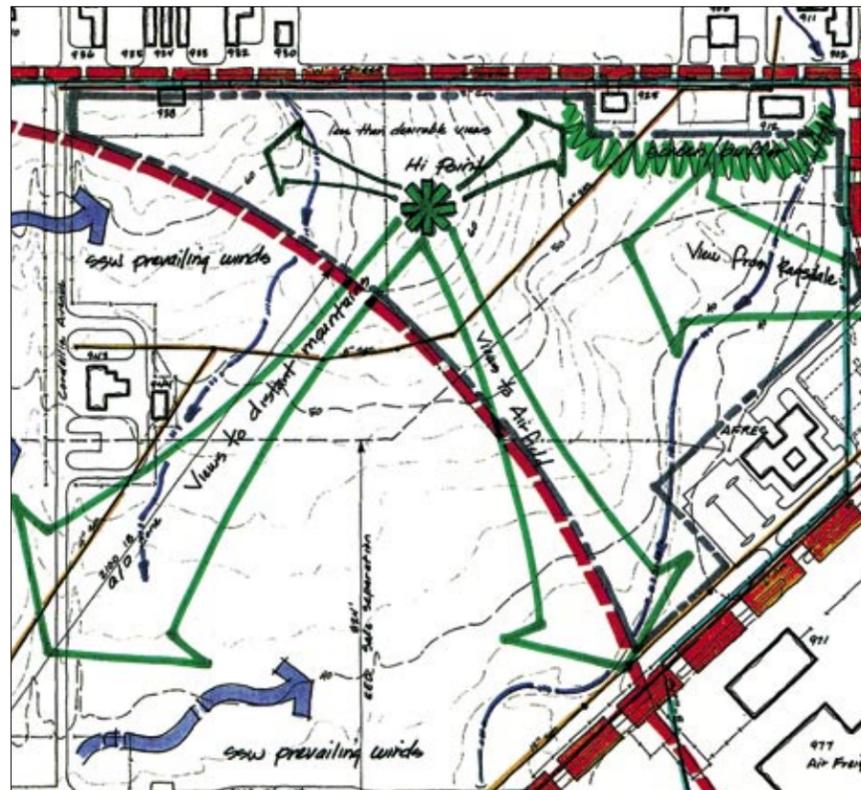
Requirements Document

In the initial submittal, the A-E defines – with the help of the AF – the requirements for the project. It may explore potential solutions, but more importantly, it includes bubble diagrams depicting the relationships of major functional elements and site / facility development options. This submittal is reviewed by the ACRB.

Each submitted package will comprise the following:

- Scope / Programming Requirements
- Project Description
- Goals and Objectives
- Sub-area Development Plans
- Site Inventory / Site Analysis
- Spatial Relationship Analysis (i.e., relationship to site)
- Adjacent Facilities and Project Site Photos

Site Inventory / Site Analysis includes (but is not limited to): vehicular traffic patterns, view, climatic conditions, environmental, safety, utility constraints, and geographic conditions. Refer to sketch.



Concept Design

This submittal must include adequate information to fully describe the project design, allowing customers / clients to easily comprehend the proposed solution. The goal is to achieve AF customer understanding and approval early in this process.

Multiple submittals may be required for large or complex projects. Generally, completion of concept design requires two submittals. The initial submittal provides a conceptual approach to the solution, while the final submittal presents a refined and more detailed design. These submittals shall be design presentation documents rather than construction documents.



Develop site plans, floor plans, roof plans, and building elevations concurrently to ensure the proposed solution is a comprehensive design. Floor plans must be developed with consideration of the site and building massing.

The ACRB will review concept submittals. If the initial submittal is rejected, or if there are significant concerns or comments, a resubmission is required prior to proceeding to the next design stage.

Each submittal package shall include:

- Concise Verbalized Design Concept
- Systems Description
- Adjacent Facilities and Site Photos
- Site Plans (colored)
- Floor Plans
- Composite Elevations (with color and shadows)
- Mechanical / Electrical Communications Entrances and Equipment Locations and Configurations.
- Building Sections
- Roof Plan
- Massing or Perspective Sketches
- Study Model (as required)
- Cost Estimate

Final Design

The final design shall remain consistent with the approved concept design. It includes highly developed drawings that further refine and detail the visual and functional quality of the design.

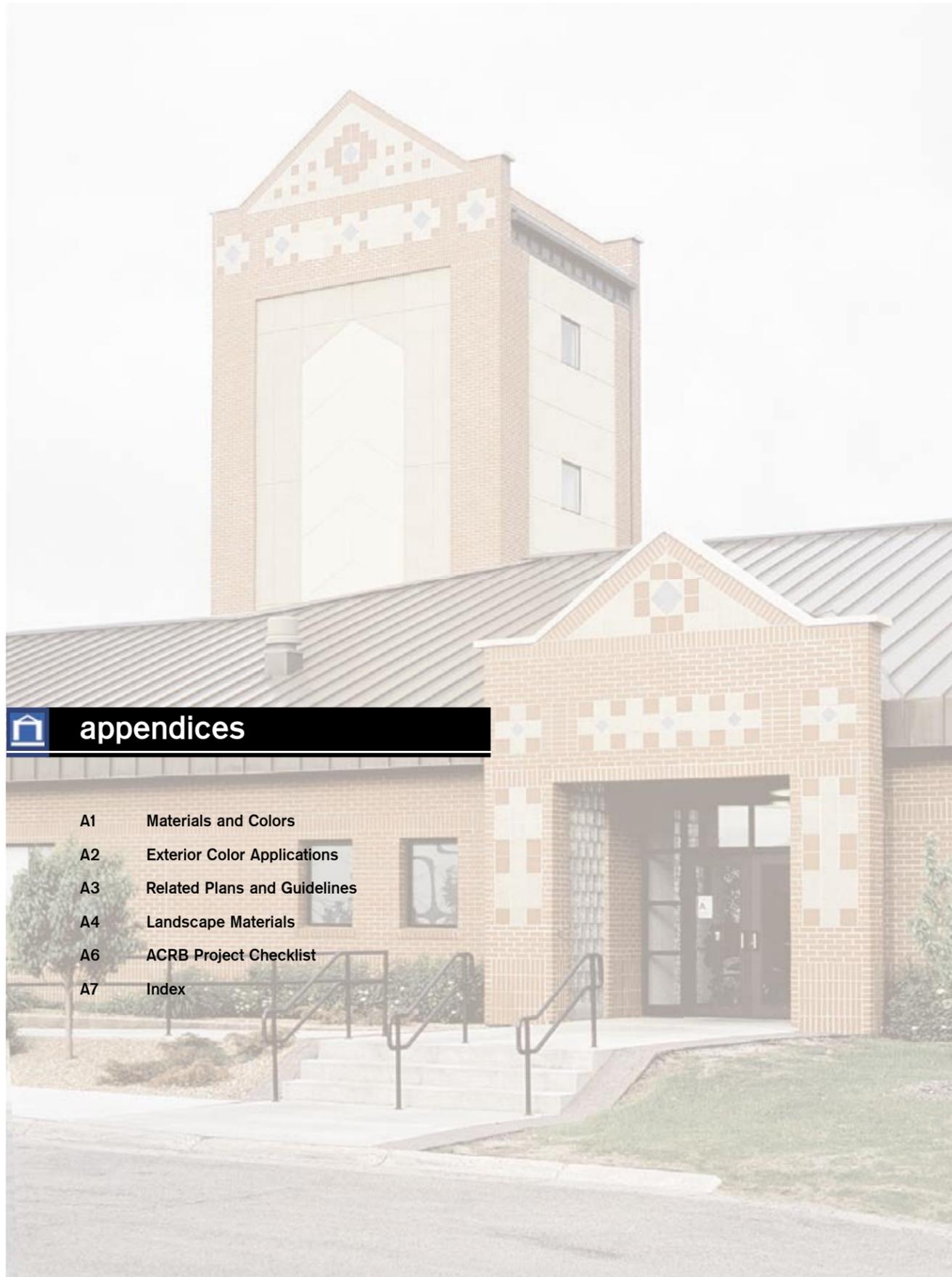
As a minimum, each submittal package shall include the following:

- Formal Colored Rendering (early in this phase)
- Material / Color Boards (interior and exterior)
- Catalog Cuts (photos)
- Design Analysis
- Cost Estimate
- Contract Documents

Contract Documents (CDs)

Contract documents must be in AutoCAD and include comprehensive drawings and specifications to meet all of the standards defined by the ACP.

All civil, mechanical, and electrical drawings must be consistent with the architectural drawings. All utility elements such as light fixtures, transformers, panels, grilles, vents, piping, etc., must be shown on the architectural drawings.



 **appendices**

| | |
|----|------------------------------|
| A1 | Materials and Colors |
| A2 | Exterior Color Applications |
| A3 | Related Plans and Guidelines |
| A4 | Landscape Materials |
| A6 | ACRB Project Checklist |
| A7 | Index |

The following building materials and products are representative of the style, color, and material to be used at Grand Forks Air Force Base. All construction projects are to use these items or a comparable product by another manufacturer. The manufacturers and styles are listed only to establish a baseline for the selection of construction materials. Original color samples are on file in Base Civil Engineering.

Basewide

- **Architectural Lettering**
Style: Helvetica Medium and Light
Color: Natural Aluminum
- **Benches**
Mfg: Belson Outdoors
Style: Plastisol Coated
Color: Black
- **Bike Racks**
Mfg: Timberform or Equal
Style: Schedule 40 pipe
Color: Dark Brown
- **Bollards - Force Protection**
Style: Steel filled w/ Concrete
Color: Dark Brown
- **Bollards - Lighted and Non-Lighted**
Mfg: Valmont
Style: Round
Color: Dark Brown
- **Brick**
Mfg: Oches or Nebraska Brick
Color: Egyptian Red - Contrasting brick colored accents allowed
Mortar: Grey
- **Brick - Contrasting Brick Accent**
Mfg: Oches or Nebraska Brick
Color: Rug Face
Color: Maroon (subject to ACRB approval)
Mortar: Grey
- **Doors - Storefront**
Mfg: Kawneer
Style: Storefront-Thermal Break
Color: Dark Bronze
Glass: Solar Bronze
- **Fencing / Gates - Architectural**
Mfg: Dakota Fence
Style: Picket
Color: Dark Brown or Black
- **Fencing - Perimeter**
Style: Chain Link
Color: Galvanized
- **Lighting**
Community Area
Mfg: AAL, PRMS
Poles: DB1-4f12
Color: Dark Bronze
Dorm Area
Mfg: Valmont
Color: Dark Bronze

- **Lighting**
Holzapple
Mfg: Holophane
Color: Dark Bronze
Parking and Walkways
Mfg: Hubbel, Magnuspec
Poles: Millerbernd
Color: Dark Bronze
Street
Mfg: Hubbel, Cobra Arm
Color: Dark Bronze
- **Litter and Ash Receptacles**
Litter Receptacles
Mfg: Belson Outdoors
Style: Plastisol Coated Trash Receptacle
Color: Black
Ash Urns
Mfg: Belson Outdoors
Style: Cast Aluminum Post
Color: Black
- **Paving - Concrete**
Pattern: Stamped
- **Picnic Tables**
Mfg: Belson Outdoors
Style: Plastisol Round
Alternate Mfg: Wausau (by ACRB Approval)
Alternate Style: TF3128
- **Planters - Free Standing**
Mfg: Wausau Tile
Style: TF4035
Color: Submit Colors
- **Play Equipment**
Mfg: Little Tykes Commercial
Style: Playground / Playbooster
Roof Finish: Metal w/ Powder-coated Plastic
Color: Red
Coating: Powder-coated or equivalent
- **Precast**
Mfg: Monarch Concrete Products, Minot, ND
Color: Off-white w/ warm tone (subject to ACRB approval)
- **Roofs- Ancillary Structures**
Finish: Kynar Finish
Style: Standing Seam
Color: Dark Bronze
Coating: Kynar
- **Roofs - General**
Finish: Kynar Finish
Style: Standing Seam
Color: Dark Bronze
Coating: Kynar
- **Stucco - EIFS**
Mfg: Varies
Style: Sand Finish
Color: Linen White

- **Translucent Panels**
Mfg: Kalwall
Style: Shoji
Color: White
- **Tree Grates**
Mfg: Neenah
Style: Adirondack
Color: Bronze

Flightline / Industrial

- **Burnished Block**
Mfg: Gage
Color: Subject to ACRB Approval
- **Split-Faced Block Accents**
Mfg: Gage
Color: Submit color samples
- **Walls - Metal Panel**
Mfg: Alco
Style: Textured
Color: Antique White

Family Housing

- **Asphalt Shingles**
Mfg: Tamko Roofing Products
Style: Heritage Series - 50 years
Color: Scheme 1: Painted Desert
Scheme 2: Mountain Slate
Scheme 3: Black Walnut
- **Brick**
Mfg: Oches or Nebraska Brick
Color: Medium to dark earth tones, coordinate with siding color schemes.
- **Shutters**
Mfg: Mid-America Building Products
Colors: Scheme 1 - Dark Green
Scheme 2 - Maroon
Scheme 3 - Black
- **Vinyl Siding**
Mfg: Royal Building Products
Trim: Royal White
Siding: Royal Woodland 16,
Colors: Scheme 1 - Beige or Wicker
Scheme 2 - Driftwood or Linen
Scheme 3 - Sand or Hickory
- **Windows**
Mfg: Silverline Windows
Series 2800, 2950, 5700
Style: Vinyl
Color: White



Light Brown SW 6093
Fed. Standard 595A #03531



Linen White SW 6119
Fed. Standard 595A #03578



Medium Brown SW 6067
Fed. Standard 595A #00279



Dark Bronze SW 6006
Fed. Standard 595A #00045

Note: 1. Original color samples are on file in the Base Civil Engineering Office.
2. Housing colors are listed on page A1.

■ APPLIED COLOR GUIDELINES

Each color application will require some interpretation; however, each should generally follow these principles. Specific exceptions are allowed with the approval of the ACRB.

- Older facilities are normally the only ones requiring paint. All new facilities shall use integrally colored or factory-applied finishes.
- Primary wall color (field color) shall be light brown on all painted walls unless otherwise directed by the ACRB.
- Reduce visual clutter by simplifying the application.
- The use of yellow hazard markings on buildings is prohibited.
- Remove building lettering and signs from building.
- Painting or applied artificial fascias, bases, details, etc. on facilities and painting of masonry or concrete architectural features such as quoins, lintels, bases, or capitals is prohibited.
- Paint equipment on brick buildings to match wall color.
- Paint equipment on painted buildings to match adjacent surface.
- Accenting downspouts or painting stripes around buildings is prohibited.
- Support and service buildings should have simplified, subtle paint schemes.
- Painting shields on tanks is discouraged.
- Variations are subject to ACRB approval.
- Primary door entries located in stucco walls are to be painted dark brown with ACRB approval.
- Secondary doors are to be painted to match the wall color to prevent calling attention to them.
- Do not arbitrarily change paint colors.

Use the most recent edition of the following documents:

| | |
|--|--|
| General | Grand Forks AFB Architectural and Landscape Compatibility Guide (Draft) AMC Commander's Guide to Facilities Excellence AMC Construction Site Standards |
| Landscaping | Grand Forks AFB Architectural and Landscape Compatibility Guide (Draft) Landscape Development Plan component of the Base Comprehensive Plan AMC Landscape Design Guide Air Force Landscape Planning and Design, AFP 86-10 |
| Family Housing | USAF Commander's Guide to Family Housing Excellence USAF Family Housing Community Guidelines for Environmental Improvements |
| Signs | AMC Exterior Sign Standards Air Force Sign Standard, UFC 3-120-01 |
| Individual Facility Design Guidance | AMC & AF Design Guides |
| Interior Design | AMC Interior Design Guide |
| Force Protection | USAF Installation Force Protection Guide Department of Defense Minimum Antiterrorism Standards for Buildings, UFC 4-010-01 |

Deciduous Trees

| BOTANICAL NAME | COMMON PLANT NAME | USE |
|--|--|----------------------------|
| <i>Acer platanoides</i> 'Pond' | Emerald Lustre Maple | Street, Parking |
| <i>Acer saccharinum</i> | Silver Maple | Accent, Parking |
| <i>Acer tataricum</i> | Tatarian Maple | Accent, Screen, Parking |
| <i>Aesculus glabra</i> | 'Homestead' Buckeye | Screen |
| <i>Betula papyrifera</i> | Paper Birch | Screen |
| <i>Betula pendula</i> v. <i>laciniata</i> | Cutleaf Weeping Birch | Screen |
| <i>Celtis occidentalis</i> | Common Hackberry | Street, Parking |
| <i>Crataegus arnoldiana</i> | Arnold Hawthorne | Screen |
| <i>Crataegus crusgalli</i> var. <i>inermis</i> | Thornless Cockspur Hawthorn | Screen |
| <i>Elaeagnus angustifolia</i> | Russian Olive | Screen |
| <i>Fraxinus americana</i> | 'Northern Blaze' White Ash | Street, Accent, Parking |
| <i>Fraxinus nigra</i> | 'Fallgold' Ash | Street, Accent, Parking |
| <i>Fraxinus pennsylvanica</i> | 'Bergeson' Ash | Street, Parking |
| <i>Fraxinus pennsylvanica</i> | Green Ash | Street, Parking |
| <i>Fraxinus pennsylvanica</i> | 'Marshall's Seedless' Ash | Street, Parking |
| <i>Fraxinus pennsylvanica</i> | 'Patmore' Ash | Street, Parking |
| <i>Fraxinus penn.</i> 'Leeds' | Prairie Dome Ash | Street, Parking |
| <i>Fraxinus penn.</i> 'Rugby' | Prairie Spire Ash | Street, Parking |
| <i>Fraxinus penn.</i> 'Wahpeton' | Dakota Centennial Ash | Street, Parking |
| <i>Malus</i> x (5) | Crabapple (5): Kelsey; Radiant; Red Splendor; Selkirk; Spring Snow | Street, Accent |
| <i>Populus alba</i> | White poplar | Accent |
| <i>Populus tremuloides</i> | Quaking Aspen | Screen |
| <i>Populus x canadensis</i> | 'Tower' Poplar | Screen |
| <i>Prunus maackii</i> | Amur Chokecherry | Accent |
| <i>Prunus padus commutata</i> | Mayday Tree | Street |
| <i>Prunus virginiana</i> 'Schubert' | Canada Red Chokecherry | Accent |
| <i>Quercus macrocarpa</i> | Bur Oak | Street |
| <i>Salix alba</i> 'Niobe' | Golden Weeping Willow | Accent, Parking |
| <i>Salix pentandra</i> | Laurel Leaf Willow | Accent, Parking |
| <i>Salix</i> x | 'Prairie Cascade' Willow | Accent, Parking |
| <i>Sorbus aucuparia</i> | European Mountain Ash | Screen |
| <i>Syringa reticulata</i> | 'Ivory Silk' Lilac | Accent |
| <i>Tilia americana</i> | American Linden | Parking |
| <i>Tilia euchlora</i> | 'Redmond' Linden | Parking |
| <i>Juniperus scopulorum</i> | Medora Juniper | Screen |
| <i>Juniperus scopulorum</i> | Rocky Mountain Juniper | Screen |
| <i>Juniperus virginiana</i> | Eastern Redcedar | Screen |
| <i>Larix sibirica</i> | Siberian Larch | Screen |
| <i>Picea glauca</i> var. <i>densata</i> | Black Hills Spruce | Screen |
| <i>Picea pungens</i> | Colorado Spruce | Screen |
| <i>Picea pungens</i> var. <i>glauca</i> | Colorado Blue Spruce | Screen |
| <i>Pinus ponderosa</i> | Ponderosa Pine | Screen |
| <i>Pinus sylvestris</i> | Scotch Pine | Screen |
| <i>Juniperus chinensis</i> (3) | Juniper (3): Maney; Mint Julep; Sea Green | Accent, Screen, Foundation |
| <i>Juniperus horizontalis</i> | 'Blue Chip' Juniper | Accent, Foundation |
| <i>Juniperus horizontalis</i> | 'Prince of Wales' Juniper | Accent, Foundation |
| <i>Juniperus horiz.</i> 'Wiltonii' | Wilton Carpet Juniper | Accent, Foundation |
| <i>Juniperus sabina</i> | 'Broadmoor' Juniper | Foundation |
| <i>Juniperus sabina</i> | 'Calgary Carpet' Juniper | Accent, Foundation |
| <i>Juniperus sabina</i> | 'Pepin' Savin Juniper | Accent, Foundation |
| <i>Picea abies</i> 'Pumila' | Dwarf Norway Spruce | Accent, Foundation |
| <i>Pinus mugo</i> <i>pumilo</i> | Dwarf Mugo Pine | Accent, Foundation |
| <i>Pinus mugo</i> var. <i>mugo</i> | Mugo Pine | Screen, Foundation |
| <i>Taxus x media</i> | 'Taunton' Spreading Yew | Accent, Foundation |
| <i>Thuja occidentalis</i> | 'Hetz Midget' Arborvitae | Accent, Foundation |
| <i>Thuja occidentalis</i> | 'Techny' Arborvitae | Screen |

Note: Variations to the list must be approved by the ACRB.

Coniferous Trees

Deciduous Shrubs

| BOTANICAL NAME | COMMON PLANT NAME | USE |
|---|---|----------------------------|
| <i>Acer ginnala</i> | 'Bailey Compact' Amur Maple | Accent, Screen |
| <i>Aronia melanocarpa</i> 'Elata' | Glossy Black Chokeberry | Accent, Foundation |
| <i>Berberis thunbergii</i> | Barberry (2): 'Crimson Pygmy'; var. <i>atropurpurea</i> (2) | Accent, Foundation |
| <i>Caragana arborescens</i> | Siberian Peashrub | Screen |
| <i>Caragana pygmaea</i> | Pigmy Peashrub | Foundation |
| <i>Cornus alba</i> | 'Ivory Halo' Dogwood | Screen |
| <i>Cornus alternifolia</i> | Pagoda Dogwood | Screen |
| <i>Cornus sericea</i> (3) | Dogwood (3): Cardinal; Isanti; Redosier | Screen, Foundation |
| <i>Cotoneaster lucidus</i> | Peking Cotoneaster | Screen |
| <i>Euonymus alata</i> 'Compacta' | Dwarf Winged Euonymus | Accent, Foundation |
| <i>Forsythia viridissima</i> | 'Broxensis' Dwarf Forsythia | Accent, Foundation |
| <i>Forsythia</i> x | 'Meadowlark' Forsythia | Accent, Screen, Foundation |
| <i>Forsythia</i> x | 'Northern Sun, Forsythia | Accent, Screen, Foundation |
| <i>Lonicera clareyi</i> <i>nana</i> | 'Miniglobe' Honeysuckle | Foundation |
| <i>Lonicera xylosteum</i> | 'Emerald Mound' Honeysuckle | Foundation |
| <i>Physocarpus opulifolius</i> | Common Ninebark | Screen |
| <i>Physocarpus opulifolius</i> | 'Nanus' Dwarf Ninebark | Foundation |
| <i>Potentilla fruticosa</i> (4) | Cinquefoil (4): Abbotswood; Coronation Triumph; Kathryn Dykes; Primrose Beauty | Accent, Foundation |
| <i>Prunus tomentosa</i> | Nanking Cherry | Screen |
| <i>Rhus glabra</i> | Smooth Sumac | Accent, Foundation |
| <i>Rhus typhina</i> | Staghorn Sumac | Accent, Foundation |
| <i>Ribes alpinum</i> | Alpine Currant | Accent, Foundation |
| <i>Rosa</i> 'Morden Centennial' | Morden Centennial | Accent, Foundation |
| <i>Spirea x bumalda</i> 'Froebelii' | Froebel Spirea | Accent, Foundation |
| <i>Spirea japonica</i> (4) | Spirea (4): Anthony Waterer; Goldmound; Japanese; Little Princess | Accent, Foundation |
| <i>Spirea trilobata</i> | 'Fairy Queen' Spirea | Accent, Foundation |
| <i>Spirea nipponica</i> | 'Snowmound' Spirea | Accent, Foundation |
| <i>Syringa meyeri</i> 'Palibin' | Dwarf Koran Lilac | Accent, Foundation |
| <i>Syringa patula</i> | 'Miss Kim' Lilac | Accent, Screen, Foundation |
| <i>Syringa villosa</i> | 'James MacFarlane' Lilac | Screen |
| <i>Syringa vulgaris</i> <i>alba</i> | Common White Lilac | Screen |
| <i>Syringa vulgaris</i> <i>purpurea</i> | Common Purple Lilac | Screen |
| <i>Syringa x prestoniae</i> | 'Miss Canada' Lilac | Screen |
| <i>Achillea ptarmica</i> | 'The Pearl' Achillea | Full Sun |
| <i>Aegopodium podagraria</i> | Snow on the Mountain | Full to Partial Sun |
| <i>Ajuga reptans</i> | Carpet Bugle | Full Sun to Shade |
| <i>Arctostaphylos uva-ursi</i> | Bearberry | Full to Partial Sun |
| <i>Bergenia cordifolia</i> | Bergenia | Full Sun |
| <i>Campanula glomerata</i> | Clustered Bellflower | Full Sun |
| <i>Clematis</i> spp. | Clematis | Full to Partial Sun |
| <i>Dictamnus albus</i> | Gasplant | Full Sun |
| <i>Euonymus fortunei</i> <i>Coloratus</i> ' | Purpleleaf Wintercreeper | Partial Sun to Shade |
| <i>Hemerocallis</i> (5) | Daylilies (5): Little Grapette; Little Winecup; Pardon Me; Red Magic; Stella De Ora | Full Sun |
| <i>Heuchera sanguinea</i> | Coralbells | Full Sun to Shade |
| <i>Hosta</i> spp. | Hosta (Plantain Lily) | Partial Sun to Shade |
| <i>Lamium maculatum</i> | Spotted Dead Nettle | Full to Partial Sun |
| <i>Linum perenne</i> | Perennial Flax | Full Sun |
| <i>Paeonia lactiflora</i> | Common Peony | Full Sun |
| <i>Phlox paniculata</i> | Perennial Phlox | Full Sun |
| <i>Salvia x superba</i> 'May Night' | May Night Salvia | Full Sun to Light Shade |
| <i>Sedum acre</i> | Yellow Stonecrop | Full Sun |
| <i>Sedum atlanticum</i> 'Autumn Joy' | Autumn Joy Sedum | Full Sun |
| <i>Yucca glauca</i> | Yucca | Full Sun |

Perennials

Note: Supplemental landscape information may be found in the Grand Forks Landscape Compatibility Guide available from the engineering flight.

architectural compatibility review board project checklist

This checklist applies to all projects large and small including self-help projects. Before building, purchasing, or installing items, the project manager will submit the following documentation for review and approval by the Architectural Compatibility Review Board (ACRB). Large projects requiring professional design services shall submit this form along with the design package at each phase of the project. The list of items below the phase title is representative of what shall be submitted at each phase. Project continuation is contingent on phase approval. Smaller projects not requiring full design services shall submit project documentation as designated by the ACRB chairperson. All projects shall comply with the ACP standards as verified by this checklist and the ACRB, unless a specific exception is approved by the chairperson.

Project Title: _____
Project Number: _____ **Project Address:** _____
Submitted By: _____
Type of Project: SABER MILCON O&M Self-Help Housing Other: _____
Full ACRB Review Required? Yes No **ACP Provided to Designer?** Yes No
Programming Documents Reviewed by ACRB? Yes No

REQUIREMENTS DOCUMENT / PROGRAMMING PHASE

| | | | |
|--|--|--|---|
| <input type="checkbox"/> Scope | <input type="checkbox"/> Project Description | <input type="checkbox"/> Adjacent Facilities Photos | Date Submitted: _____ |
| <input type="checkbox"/> Goals | <input type="checkbox"/> Objectives | <input type="checkbox"/> Future Project Considerations | Date Resubmitted: _____ |
| <input type="checkbox"/> Budget | <input type="checkbox"/> Materials | <input type="checkbox"/> Furnishings | <input type="checkbox"/> Design Complies with ACP Standards |
| <input type="checkbox"/> Colors | <input type="checkbox"/> Equipment | <input type="checkbox"/> Other: _____ | <input type="checkbox"/> Resubmittal Requested |
| <input type="checkbox"/> Site Inventory / Site Analysis | | | <input type="checkbox"/> Comments Attached |
| <input type="checkbox"/> Coordinated with Subarea Development Plans | | | By: _____ Date: _____ |
| <input type="checkbox"/> Coordinated with Other Planning Documents and Policies | | | User Approval: |
| <input type="checkbox"/> Preliminary Solutions Allow for Full Compliance of ACP (design not finalized until concept design is complete) | | | By: _____ Date: _____ |

CONCEPT DESIGN

| | | | |
|---------------------------------------|--|--|---|
| Building | | | Date Submitted: _____ |
| <input type="checkbox"/> Style / Form | <input type="checkbox"/> Scale | <input type="checkbox"/> Massing | Date Resubmitted: _____ |
| <input type="checkbox"/> Proportions | <input type="checkbox"/> Materials | <input type="checkbox"/> Colors | <input type="checkbox"/> Design Complies with ACP Standards |
| <input type="checkbox"/> Wall Systems | <input type="checkbox"/> Details | <input type="checkbox"/> Ancillary Structures | <input type="checkbox"/> Resubmittal Requested |
| <input type="checkbox"/> Lighting | <input type="checkbox"/> Signs | <input type="checkbox"/> Roof Systems | <input type="checkbox"/> Comments Attached |
| <input type="checkbox"/> Entrances | <input type="checkbox"/> Windows / Doors | <input type="checkbox"/> Sustainable Development | By: _____ Date: _____ |
| Site Development | | | User Approval: |
| <input type="checkbox"/> Siting | <input type="checkbox"/> Setbacks / ATRP Standoffs | <input type="checkbox"/> Utilities | By: _____ Date: _____ |
| <input type="checkbox"/> Lighting | <input type="checkbox"/> Signs | <input type="checkbox"/> Screens / Enclosures | |
| <input type="checkbox"/> Furnishings | <input type="checkbox"/> Landscape | <input type="checkbox"/> Future Expansion Considered | |
| Circulation | | | |
| <input type="checkbox"/> Roads | <input type="checkbox"/> Parking | <input type="checkbox"/> Signs | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Lighting | <input type="checkbox"/> Paths / Walks | <input type="checkbox"/> Landscape | <input type="checkbox"/> Other: _____ |

FINAL DESIGN

| | |
|---|---|
| <input type="checkbox"/> Final design remains consistent with approved concept design and elements listed above | Date Submitted: _____ |
| <input type="checkbox"/> Materials / Color Board (interior and exterior) | Date Resubmitted: _____ |
| <input type="checkbox"/> Rendering <input type="checkbox"/> Catalog Cuts <input type="checkbox"/> Architectural Details | <input type="checkbox"/> Design Complies with ACP Standards |
| <input type="checkbox"/> Landscape Development | <input type="checkbox"/> Resubmittal Requested |
| <input type="checkbox"/> Construction Documents | <input type="checkbox"/> Comments Attached |
| <input type="checkbox"/> Fascia / Gutters / Downspouts | By: _____ Date: _____ |
| <input type="checkbox"/> Cost Reduction Proposal (if necessary) Comply with ACP | User Approval: |
| <input type="checkbox"/> Coordinated with Other Planning Documents and Policies | By: _____ Date: _____ |
| <input type="checkbox"/> Coordination / Organization of Mechanical and Electrical Elements | |
| <input type="checkbox"/> Other: _____ | |

JUSTIFICATION FOR NONCOMPLIANCE

Explain: _____ **Design Does Not Comply with ACP Standards**
 _____ **By:** _____ **Date:** _____

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PREPARED BY:

Fennell Group
700 North Tejon Street, Studio 100
Colorado Springs, Colorado 80903 USA
(719) 471-0700
www.fennellgroup.com
James R. Fennell, AIA
Project Architect

with Assistance from:

SI International, Inc.
1631 South Murray Boulevard
Colorado Springs, Colorado 80916
(719) 235-4433
www.si-intl.com

IN ASSOCIATION WITH:

319th Civil Engineer Squadron
525 Tuskegee Airmen Blvd.
Grand Forks Air Force Base, ND 58205-6434 USA
(701) 747-4768

AMC Design Center (HQ AMC/A7CD)
Construction Division
Directorate of Installations &
Mission Support
507 Symington Drive
Scott Air Force Base, Illinois 62225 USA
<https://amc.scott.af.mil/A7>

PHOTOGRAPHIC CREDITS:

James R. Fennell, AIA
Dennis D. Bills, RA



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