BANNER HEALTH CENTER *plus*

Development Review Board Narrative

June 25, 2024

DEVELOPMENT TEAM

Property Owner/ Applicant/Developer:

BANNER HEALTH
Troy Freeman
Vice-President, Real Estate Management
Mark Barkenbush
Vice-President, Facility Services
2901 North Central Avenue, Suite 160
Phoenix, Arizona 85012
818 / 422.9122
Troy.Freeman@bannerhealth.com
Mark.Barkenbush@bannerhealth.com

Land Use Counsel:

GAMMAGE & BURNHAM PLC
Susan E. Demmitt
40 North Central Avenue, 20th Floor
Phoenix, Arizona 85004
602 / 256.4456
sdemmitt@gblaw.com

Planning /Architecture/ MEP/Engineering/ Landscape:

SMITHGROUP
Mark Koechling
Project Manager
Doug Nielsen
Associate
435 North 3rd Street, Suite 250
Phoenix, Arizona 85004
602 / 478.7759
mark.koechling@smithgroup.com
Doug.Nielsen@smithgroup.com

Civil Engineer:

DIBBLE ENGINEERING
Shannon Mauck
Senior Project Manager, Land Development
3020 East Camelback Road, Suite 201
Phoenix, Arizona 85016
623 / 935.2258
shannon.mauck@dibblecorp.com

TABLE OF CONTENTS

Development Team 2

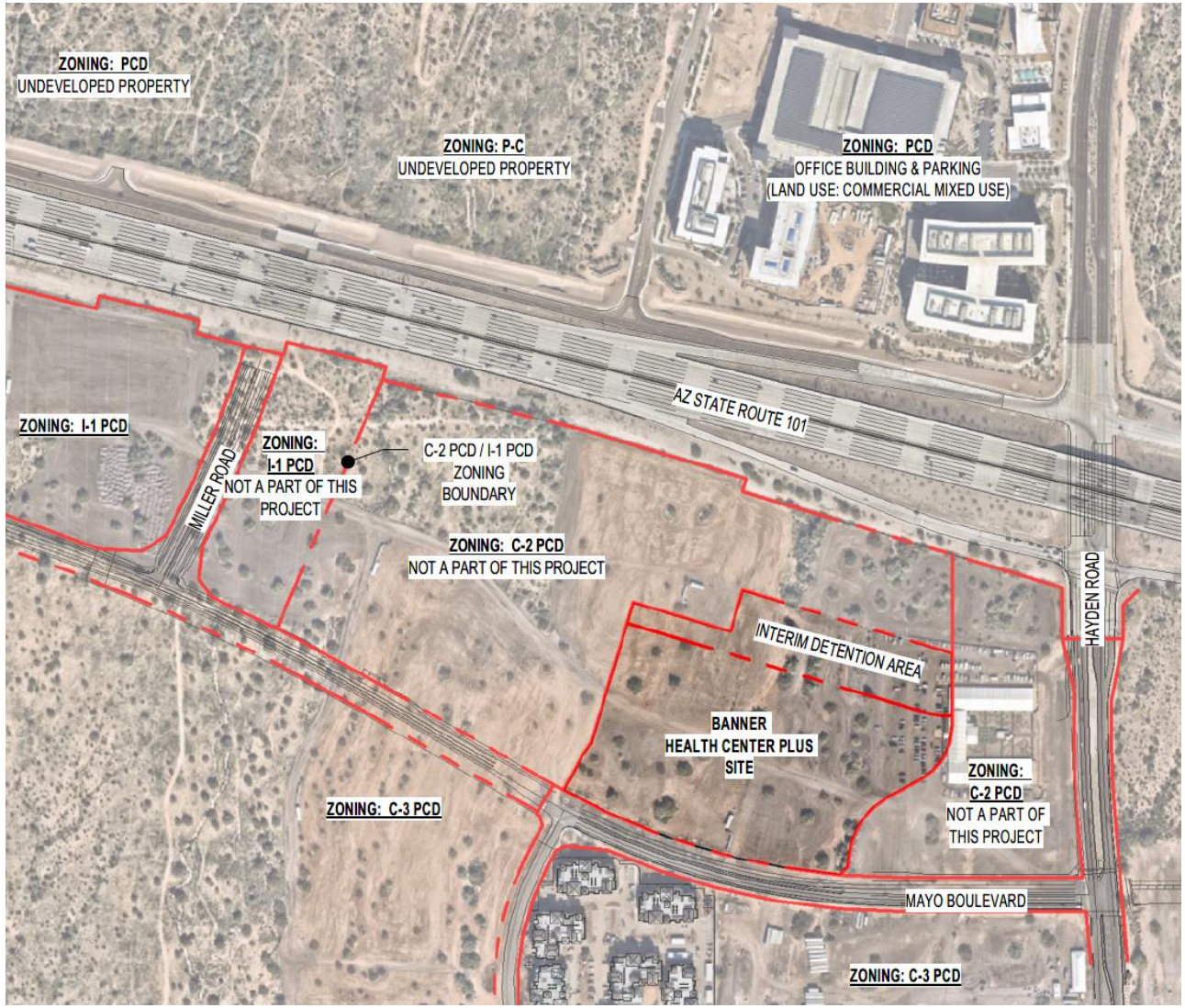
1. Project Overview 4
2. Site 6
3. Banner Health Center *Plus* 7
4. Civil 13
5. Architecture & Design 15
6. International Green Construction Code (IgCC) 22
7. Development Review Board Criteria 23
8. Design Guidelines 26

1. PROJECT OVERVIEW

Banner Health ("Banner" or "Applicant") is submitting this Development Review Board Application ("Application") to facilitate development of a new Banner Health Center *Plus* ("Health Center *Plus*" or "Project"), an outpatient medical office and services facility, to be developed on the approximate 15 gross acres generally located 700-feet west of the northwest corner of Hayden Road & Mayo Boulevard ("Site"). The Site is comprised of a portion of Maricopa County Assessor Parcel Number 215-07-209H ("Property"). See Context Aerial Map. The remainder of the Property is not included in this Application. The Site is zoned Planning Community District—Central Business District (P-C C-2) by Ordinance No. 4594 (19-ZN-2022#11). The Site is located within Planning Unit IV of the Crossroads East Planned Community District (PCD). The proposed uses are allowed by right pursuant to the existing and approved zoning. No changes to the approved zoning or development standards are requested with this application. The 119,500 gross square-foot Banner Health Center *Plus* will be a state-of-the-art outpatient medical office and services facility will help continue to develop Banner's care network in Scottsdale adding exciting specialties such as a Banner MD Anderson oncology program, ambulatory surgery, outpatient imaging, primary and specialty care, and related uses. The Banner Health Center *Plus* will serve as a new community healthcare resource for the benefit of the existing and growing population of North Scottsdale and greater North Phoenix.

The Health Center *Plus* facility will include an array of healthcare services, including a comprehensive MD Anderson Cancer suite that incorporates Radiation Oncology, Linear Accelerators, Infusion Center, Oncology Imaging, and Compounding Pharmacy, as well as Banner University Medical Group clinic space, a Banner Health Urgent Care, Retail Imaging Center, Banner Family Pharmacy, and an Ambulatory Surgery Center. The Project complies with the City's adopted Green Building Program that mandates adherence to the International Green Construction Code. Design features included as part of the Project include EV-ready charging infrastructure, renewable energy solutions, and water use reduction strategies.

2. SITE



The Site is generally located west of Hayden Road between State Route 101 to the north and Mayo Boulevard to the south. The Site is currently vacant, undeveloped desert land, and is immediately bounded to the east by property owned by Hayden Loop 101 Investors LLC and zoned P-C C-2 in 19-ZN-2022#11; to the north west by the remainder of APN - 209H, which is also vacant, undeveloped land zoned P-C C-2, with a small portion near the Miller Road alignment zoned P-C I-1; and to the south by San Artes luxury apartment home community.

Notable uses in the surrounding area include the Nationwide/ Cavasson campus to the north across State Route 101, the planned ASM campus and the under construction Optima McDowell Mountain condominiums to the west, and the Fairmont Scottsdale Princess and the TPC Stadium golf course to the southwest.

3. BANNER HEALTH CENTER *plus*

OVERALL SITE ORGANIZATION

The Health Center *Plus* facility is planned on the approximate 14.8 acres generally located 700-feet west of the northwest corner of Hayden Road & Mayo Boulevard. The Site Plan is generally organized along an east—west axis. The Project includes a 3-story, 119,500 gross square-foot medical office building, including a 1-story urgent care. The building is generally positioned in the middle of the Site, with associated site improvements, such as landscaping, open space and trail network, hardscape, and parking surrounding it.

Primary access to the Health Care *Plus* facility is planned along Hayden Road and at the intersection of 78th Street & Mayo Boulevard, with secondary access planned at the approximate midpoint between Hayden Road and 78th Street. Parking fields are distributed around the perimeter of the building, with patient parking and the main building entry oriented to the north. The urgent care entry is also located on the north side of the building; however, has a separate entrance from the main building. Staff parking is distributed around the perimeter, including a parking canopy with solar panels. Hardscape pathways are planned to provide connectivity and safe access to the facility's various entries/exits for staff, patients, and visitors.

PROGRAMMING & PLANNING

The Health Center *Plus* facility will provide comprehensive outpatient services as well as Outpatient Oncology services provided in conjunction with M.D. Anderson. M.D. Anderson services will include Radiation Oncology, Linear Accelerators, Infusing Center, Oncology, Imaging, and Compounding Pharmacy. Additionally, the facility will include clinic space for the Banner University Medical Group, Banner Health Urgent Care, Retail Imaging Center, Banner Family Pharmacy, and an Ambulatory Surgery Center. It is anticipated that the Banner University Medical Group clinics will occupy the entire 2nd floor, and are planned to include cardiac outpatient services, as well as other specialty services.

a

HIGH PERFORMANCE DESIGN & FUNCTIONALITY

The Health Center *Plus* facility is designed using site-adapted Banner Health template designs, which have been developed to maximize functional and operational efficiencies and provide state-of-the-art treatment spaces focused on exceptional patient care.

Synonymous with the MD Anderson Cancer Center brand, the building will also include a structural "Lantern Element" on the building exterior that serves as a beacon of hope for patients, families, and caregivers. Soothing color palettes, bespoke landscape design, natural trails, and accessible parking will make the facility a new healthcare landmark for the City of Scottsdale.

Design decisions were carefully evaluated by the integrated project delivery team comprised of Banner Health Design & Construction, Banner Health System clinical experts, SmithGroup, NexCore, Okland Construction Company, and construction sub-trades. The Banner Health Center *Plus* facility seeks to combine the best practices of Banner and NexCore's network of medical office buildings and implement new innovations in healthcare design.

The Project seeks to develop design and engineering strategies that promote health, healing, & wellness, while conserving water and energy, and respecting the natural ecosystem of the Site.

PARKING

Parking complies with City's requirement of 4 parking spaces per 1000 square-feet of building area, plus additional parking as determined based on Banner's extensive experience. Based on the various planned medical office uses, Banner is providing 4.43 parking spaces per 1,000 square-feet of building area, resulting in a total of 529 parking spaces, with the requisite number of ADA parking spaces clustered near the building's main entry.

LANDSCAPING

The general site design focuses on exterior landscape improvements along the perimeter roadways and points of entry. The character of the design includes a natural desert palette with species and forms that are native to the general Sonoran region. Visual and physical wayfinding cues guide patients and visitors to parking areas that connect to pedestrian walks linking to building entries. Areas of respite with shade and seating are located throughout the Project and adjacent to building entries, serving as gathering spaces for visitors and staff at different scales with flexible programming opportunities. A small staff patio and garden planting area will be placed on the east side of the building to provide maximum shade for daytime use and views to the mountains. Landscape micro-basins and bio-swales contribute aesthetic and ecological benefits while also retaining water and conveying it to larger detention/retention areas. The planting along the Mayo Boulevard trail corridor and internal walking paths will be Sonoran native planting focused on providing ample pedestrian shade while promoting wildlife, such as local pollinators like butterflies and hummingbirds.

LANDSCAPE PALETTE

LANDSCAPE SPECIES PALETTE

Landscape planting design will consist primarily of trees, shrubs, cacti, accents, and ground cover plants. Mature native trees and cacti will be salvaged and relocated on site as part of the new landscape planting design to the greatest extent possible. Plant materials will be strategically selected based on characteristics of low water-use and low maintenance requirements. Stone top-dress and plant species selection will enhance and celebrate the native, desert character of the area to create a cohesive visual experience across the Site that blends into the contextual environment. Plant selections at building entries, staff/visitor amenity spaces, and pedestrian linkages will include a mixture of scale, form, texture, and color to celebrate the dynamic forms of the Sonoran Desert and provide seasonal interest.

Select high visibility areas are planned to receive increased masses and specimen materials. Plant densities will be highest within impact areas to encourage recognition of arrival points. Similar densities will occur along pedestrian walks and common areas for aesthetics and staff and visitor comfort. Tree and plant size and quantities will adhere to City requirements throughout Project.

IRRIGATION

All landscape planting areas will be fed by a new automatic, underground irrigation system. This water-wise irrigation system will include a rain sensor so that in case of a rain event the irrigation system will shut off, allowing for the most efficiency and water conservation. The new system will be set up so all current and future irrigation areas tie back to one central controller unit. Plants of similar species and water demands will be valved separately to minimize water-use and prevent over-watering. Best stormwater management practices will seek to use drainage design to direct rain water to landscape plantings prior to reaching the storm sewer to reduce irrigation demand.

.

HARDSCAPE & SITE FURNISHINGS

Premium paving materials will be used at the visitor entry plaza and vehicular entries to the parking lot to further layer and define site wayfinding and reinforce the architectural design language of the Project. The perimeter wellness trail will be constructed with stabilized decomposed granite to blend in with the adjacent desert ground plane, reduce the use of concrete, and increase the porosity of the Site. The overall site paving material palette will balance aesthetics with durability, maintenance, and ease of construction.

LOADING & MECHANICAL

The service-related elements are planned along the south side of the building. A loading area has been provided with enough width to accommodate loading and for future mobile MRI capabilities. Additional services along the south side include access to the recycle and trash compactors, as well as dedicated parking for Ambulatory Surgery patient discharge. To the east of the refuse area, the main mechanical and electrical equipment yard is provided, fully screened. MEP yards have been provided in two areas on the site. On the western portion of the south elevation, one additional ground mounted mechanical unit is provided, and is fully screened.

REFUSE

The Project, which includes calculated capacity for a total of 180,000 GSF, will provide a 6 cubic yard trash compactor and a 6 cubic yard recycle compactor. The calculations are provided below for conformance with the IgCC recycling requirements and Scottsdale Design Standards & Policies Manual (DSPM):

Total Capacity Gross Square Feet (Commercial/Non-Residential): **180,000 GSF**
Total Refuse Containers: (180,000/30,000) x 2 = 12 containers distributed as **6 trash and 6 recycling**.
6 containers x 4 cubic yards = 24 cubic yards of waste & 24 cubic yards of recycling.
Waste Compaction ratio: 24 cubic yards / 4 (ratio below) = **6 cubic yards trash compactor**
Recycle Compaction ratio: 24 cubic yards / 4 (ratio below) = **6 cubic yards recycle compactor**

4. CIVIL

GRADING & DRAINGE

The Grading & Drainage design approach will meet the City and Maricopa County Flood Control District requirements. The design will include storm drains and/or swales to collect and convey both off-site and on-site flows to surface detention basins. These flows will be discharged by means of storm drain bleed-off. All building finish floors are required to be set a minimum of 3' above the highest adjacent grade or above the 500-year storm event to meet City and Federal floodplain requirements. A 500-year floodplain analysis was conducted with assumptions for the grading to the west with results showing that the 500-year water surface elevation does not govern the finish floor elevation. The finished floor will be set at least 3' above highest adjacent grade.

The offsite flows that impact the Site from the northeast will be collected and conveyed as part of the parcels to the east, which wil be designed and developed by others. These improvements will be in place prior to construction of the Health Center *Plus* facility. There will be a junction structure required at the end of the collection to connect the east storm drain to the existing culverts in Mayo Boulevard.

WATER

There is an existing City 16" Ductile Iron Pipe (DIP) water main under Hayden Road and another 16" DIP Pipe that runs east-west under Mayo Boulevard. An on-site loop will provide fire protection to the building and hydrants, while domestic service will be taken from the main in Mayo Boulevard. There is a 12-inch public water line planned in the north drive while the fire loop through the Site is planned to be private. Fire hydrants will be spaced throughout the Site and along Mayo Boulevard to meet City Fire Code.

SEWER

Site sewer will discharge to a planned City of Scottsdale sewer main running east-west in Mayo Boulevard that is being designed and constructed by others. A sewer stub will be provided to the north end of the Site to minimize disruptions during any future expansions. Sewer mains will be sized to convey flows for the Project and possible future development to the north. Manholes will be provided as required to meet City of Scottsdale requirements.

ACCESS & TRAFFIC

Mayo Boulevard is planned to be extended to the west and widened along the north half-street. Two right turn lanes and two driveways are proposed along Mayo Boulevard to allow access to the Site. Both driveways are anticipated to be full access driveways. The east full access driveway will be a shared driveway between the Health Center *Plus* and future development to the immediate east. Additionally, in partnership with the property owner to the east, a private access drive connection to the Site from Hayden Road is being constructed that will allow access from southbound Hayden Road. These connections will allow for a looped circulation system for the Site. On-site private access drives to the north and the west of the Banner Health Center *Plus* will be designed and developed as part of this Project, while the access drive to the east will be designed and developed by others.

OFF-SITE IMPROVEMENTS

The adjacent landowner to the east, Hayden Loop 101 Investors LLC, is responsible for all required Master Plans, pursuant to the requirements of the Crossroads East PCD, and will take the lead on design and construction of off-site improvements, including right of way dedication and easements for Hayden Road and Mayo Boulevard, construction of required off-site roadway improvements for Hayden Road and Mayo Boulevard, and off-site water and sewer infrastructure, as well as the internal shared access drive along the eastern portion of the Site and the internal drive that connects to and from Hayden Road. All required off-site improvements will be completed alongside design and construction of the Banner Health Center *Plus* facility.

5. ARCHITECTURE & DESIGN

ARCHITECURAL DESIGN & CONCEPT DRIVERS

The Banner Health Center *Plus* is designed with unmatched quality, which mirrors the quality of care and commitment to the community that Banner provides in all of their facilities. The building is designed using the foundation of the new Banner Health Center *Plus* model.

This Project has been designed to be rooted in its Southwestern context and use quality materials and massing strategies that are sensitive to the local surroundings in terms of scale and context adjacent to the Loop 101 freeway corridor. The Project builds off the design themes that were established with the Banner Health Center *Plus* at New River Trails (located at 75th Avenue and the Loop 101 Freeway), and Banner's system-wide legacy of high quality architecture at its many medical center, outpatient and cancer center projects, and specifically the campuses of Banner Ironwood, Banner Ocotillo, and Banner Gateway. The architecture and building massing are integrated with Site and building programming strategies aimed to provide relief stress for patients, enhance wayfinding for staff and visitors, communicate a premium care delivery environment, and integrate seamlessly into the natural desert environment.

HEALTH CENTER PLUS BRAND PRECEDENT


BANNER HEALTH CENTER PLUS - NEW RIVER TRAIL


BANNER HEALTH CENTER PLUS - NEW RIVER TRAIL


BANNER UNIVERSITY TUCSON - NORTH

MD ANDERSON BRAND PRECEDENT


BANNER MD ANDERSON - GATEWAY CAMPUS


BANNER MD ANDERSON - PHOENIX CAMPUS

North Elevation—Health Care Plus Entry

This Project will be one of Banner's most significant investments into the Scottsdale healthcare marketplace. To maximize the investment potential, the facility's design plays an important role in communicating the mission of delivering a high quality of care to this community. A focus on health and wellness will elevate the experience of those visiting the facility. To emphasize placemaking and connectivity with the community, the natural desert site will be celebrated as well as the direct views to the McDowell preserve to the North and East of the site.

Design perspectives are included below and as part of the included exhibits along with building elevations that visually represent the approach to design and the adherence to the City's design guidelines. Specific language for each design guideline is included below.

North Elevation—Health Care Plus Entry

South Elevation (looking from walking trail)

South Elevation (looking from May Boulevard)

North Elevation (looking from respite trail)

West Elevation (looking from respite trail)

East Elevation

North Elevation—Urgent Care Entry

North Elevation—Urgent Care Entry

BUILDING MATERIALS

The blend of quality building materials, which include masonry block, metals, and synthetic finishes, combined with the composition of windows and shading elements, provide for proper and appropriate massing and scale, creating a comfortable environment on-site, as well as along the surrounding streetscapes.

The color palette is comprised of a range of natural earth tones, with the intent of staying away from large amounts of warm or dark colors. Light sand and tan colors are complimented by the cooler glass and small areas of metal panels. This approach gives the building a lighter feel, relying on the rich texture of the various materials to promote a sense of elegance and quality commensurate with the consistent visual identity of Banner's facilities. To celebrate the natural environment, synthetic cor-ten metal panels will be used with the cool synthetic zinc metal panels.

Masonry is concentrated at the main entry points of the building (freeway exposure) and the south elevation along Mayo Boulevard. The masonry consists of four different colors and multiple masonry textures that are inter-woven in a pattern reminiscent of the natural Arizona landscape. This signature pattern also is used in site walls and to screen the building support areas on the south elevation. The placement of the masonry serves two primary functions—communicate design excellence which is representative of the care received and to be a focal element that stands out from the rest of the building perimeter to call one's attention to a specific element.

Curtainwall and storefront high-performance glazing will be maximized in areas of highest public impact to connect users to the natural context on-site, as well as long range to the views outward from the Site. Glazing in staff circulation and break areas will also be maximized to allow for proper respite, collaboration, and recharge spaces.

Synthetic stucco (EIFS) of a similar color complement broken up by horizontal and vertical score lines is a predominant material on the east and west sides of the building. Punched window openings, areas of metal panel, canopies and other subtle accents provide a rich composition intended to create visual interest and avoid creating monolithic elevations.

Metal panel accents are used throughout the exterior of the building to provide a visual break from the predominant masonry or stucco exterior materials. These panels are used in a way that breaks the building's cornice line with the intent of reducing the building scale and mass.

LANTERN DESIGN

The signature focal element of the Banner Health Center *Plus* is the architectural 'lantern' element, similar to the 'Lantern of Hope' installed at the Banner MD Anderson Cancer Center at the Gateway campus in Gilbert, Arizona. The intention of the lantern element is to continue the legacy of design of similar Banner MD Anderson projects, but more importantly, recreate a similar effect of exposure from the adjacent freeway and a radiating message of hope for the users, patients and visitors to the building.

The design for the lantern utilizes clear glazed curtainwall, to maximize transparency of the element, and then a laser cut pattern of a palo verde tree canopy into an aluminum plate system held off the curtainwall by outriggers to create the layered effect. During evening hours, the lantern is illuminated to recognize the different colors associated with various cancer awareness platforms. It is proposed that the design utilizes interior lighting to create the nighttime lighting effect, with recessed lighting coves at the slab edges to minimize horizontal dark bands of the lighting affect around the perimeter.

6. INTERNATIONAL GREEN CONSTRUCTION CODE (IgCC)

HEAT ISLAND MITIGATION

A minimum of 50 percent of site hardscape has been provided with a combination of the following options (a) shading by trees and (b) SRI compliant hardscape material. Full compliance with this requirement is detailed on exhibits LP100.1-LP100.3, which illustrate shade provided from the trees on-site at 10 AM, 12 PM, and 3 PM at the summer solstice per City requirements. The mean shade provided from those times, plus the SRI compliant hardscape are detailed as part of the submittal.

ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Based on the size of this Health Center *Plus* facility, 19 chargers are planned to be 'ready' and the infrastructure for an additional 28 total to be provided on-site (4% and 10% of the required parking).

ENERGY COMPLIANCE PATH (PRESCRIPTIVE)

This facility is designed to be compliant with the 2021 International Energy Code and 2021 International Green Building Code as required by the City. Based on the glazing being less than 40% of the perimeter, the design will be confirmed and documented utilizing the DOE COMCheck compliance forms.

ON-SITE RENEWABLE ENERGY SYSTEM

In accordance with IgCC amended Sections 701.3, this Project is to provide not less than 3% of the annual estimated energy use for the building mechanical, service water heating, and lighting.

The annual estimated energy use for the building mechanical, service water heating, and lighting is estimated at 18.2 kWh/sf-yr or 2,115,768 kWh/yr for this 119,500 SF building. Energy use intensity has been estimated based on the Department of Energy/Pacific Northwest National Laboratory prototype building energy models for an Outpatient Healthcare Facility built to IECC 2021 in Climate Zone 2B.

3% of 2,115,768 kWh/yr is approximately 64,000 kWh/yr. A 45 kWdc solar array, is estimated to produce enough power to meet the 3% of annual building mechanical, service water heating and lighting energy use requirement. A 45 kWdc solar array is estimated to produce 70,000 kWh/yr in Scottsdale at a 0° tilt and 78,000 kWh/yr with the City's Solar Submittal Guidelines recommended tilt of 18.5° based on PVWatts analysis.

This PV solar system will be provided on a parking canopy in the parking field west of the facility. The canopy section has also been provided with the site detail exhibits.

REFUSE AND RECYCLING COLLECTION

Refuse and Recycling enclosures are provided and designed for in accordance with DSPM Section 2-1.309. Two (6) Cubic Yard vertical trash compactor will be provided for both recycling and refuse, one for each refuse line. Location and validating calculations have been provided on the Refuse exhibit.

7. DEVELOPMENT REVIEW BOARD CRITERIA

Section 1.904 of the City's Zoning Ordinance sets forth the criteria guiding the Development Review Board when considering applications for development:

1. *The Board shall examine the design and theme of the application for consistency with the design and character components of the applicable guidelines, development standards, Design Standards and Policies Manual, master plans, character plan and General Plan.*

Response: The Banner Health Center *Plus* facility has been designed with a consistent theme, which conforms to the applicable design guidelines—Sensitive Design Program, Greater Phoenix Metro Green Infrastructure Handbook, MAG Supplements, Office Design Guidelines, Lighting Design Guidelines, and the Shading Design Guidelines, development standards, Design Standards & Policies Manual, master plans, Greater Airpark Area Plan, and General Plan (see below).

2. *The architectural character, landscaping and site design of the proposed development shall:*

   a. *Promote a desirable relationship of structures to one another, to open spaces and topography, both on the site and in the surrounding neighborhood;*

Response: The Project recognizes that the building should be scaled to its context. The Site Plan and design of the building integrate into the existing context of the area, through breaking-up the volume of the overall building, proportions, and height into smaller sub-volumes and by creating the appearance of grouping of smaller structures through the use of textures, materials, details, colors, and other architectural elements. Building materials were selectively chosen to include the use of quality masonry block, metals, and synthetic finishes, combined with the composition of windows and shading elements, which collectively provide for proper and appropriate massing and scale, creating a comfortable environment on-site, as well as along the surrounding streetscapes.

The Health Center *Plus* facility has been designed with a cohesive network of pedestrian and vehicular access points that provide appropriate public linkages and safe service access at the rear of the facility. The natural topography of the site slopes down from north to south and the buildings, pathways and open space relate appropriately to the sloping site. The structures will relate to the adjacent neighboring properties as well as the freeway for seamless contextual integration.

b. *Avoid excessive variety and monotonous repetition;*

Response: The Health Center *Plus* facility will have a unifying aesthetic as developed by the Banner Health Design Standards, which was appropriately conceived as a response to southwestern regional landscape and climatic features. The design will promote a cohesive massing strategy with textured/layered elevations and appropriate focus on elements to assist in intuitive wayfinding on-site.

The building has been scaled to its context and complies with all applicable development standards. The building elevations define a rhythm and pattern of windows, materials, colors, and architectural features that are similar in proportion, which also establish a human scale at the streetscape and building entries. In addition, the external design of the building expresses the position of each floor through materials, articulation of structural elements, and expression lines to avoid the appearance of large panelized facades or extensive featureless surfaces.

c. *Recognize the unique climatic and other environmental factors of this region to respond to the Sonoran Desert environment, as specified in the Sensitive Design Principles;*

Response: The architecture of the desert southwest has traditionally responded to its surroundings to provide a green response in the design process. The Health Center *Plus* facility includes flat roofs that minimize the surface area exposed to the sun with internal building and roof deck insulation protecting the most vulnerable portion of the building. The facility's walls are predominately light in color to reflect the sun and provide adequate thickness to insulate the structure. Landscaping set against the building helps to soften the most extreme summer heat conditions. Overhangs at entries and recessed windows shade the required opening from direct sunlight, while providing an abundance of natural interior light. The Project includes use of trees in the landscaping, along with low water use, but green, vegetation below them to cool the building surroundings and exterior walls.

The Health Center *Plus* facility has been designed to respond to green initiatives, including site design elements of open space, storm water design, heat island effects, and water efficiencies. The building has been designed to optimize energy performance and use or reuse of recycled materials with control systems for lighting, thermal comfort, and ventilation.

The City's Sensitive Design Principles & Guidelines emphasize the unique character of the architecture. The planned structure, along with landscaping, streetscape, and elements of human scale are appropriate and relate to the context of the surrounding area. The Banner brand standards are rooted in the Sonoran Desert environment, and adherence to the Sensitive Design Principles are detailed in this Narrative and accompanying plan sheets.

d. *Conform to the recommendations and guidelines in the Environmentally Sensitive Lands (ESL) Ordinance, in the ESL Overlay District; and*

Response: The proposed facility is not located in the ESL Overlay District.

e. Incorporate unique or characteristic architectural features, including building height, size, shape, color, texture, setback or architectural details, in the Historic Property Overlay District.

Response: The proposed facility is not located in the Historic Property Overlay District.

3. Ingress, egress, internal traffic circulation, off-street parking facilities, loading and service areas and pedestrian ways shall be so designed as to promote safety and convenience.

Response: Mayo Boulevard is planned to be extended to the west and widened to the north, along with construction of two right turn lanes and two driveways providing access to the Site. Both driveways are anticipated to be full access driveways. The east full access driveway will be a shared driveway between the Health Center *Plus* and the future development to the immediate east. Additionally, the adjacent property owner is constructing a connection to and from the Site from Hayden Road that will allow access from southbound Hayden Road. These connections will allow for a looped circulation for the Site. On-site private access drives to the north and the west of the Site will be designed and developed as part of the Project, while the private access drive to the east will be designed and developed by the adjacent property owner as noted. Both Mayo Boulevard and Hayden Road will be improved with sidewalk and landscaping to ensure pedestrian safety and comfort.

The Site Plan has been designed to provide ease of access with clear and open view corridors and direct vehicular routes, in an effort to be efficient and convenient for patients, visitors, and staff. The Site Plan recognizes that a motorist becomes a pedestrian the moment the car is parked and exits the vehicle. As such, vehicular service traffic is separated from the patient and visitor circulation points and through direct routes. Additionally, the parking areas are clearly organized with separated and safe pedestrian routes through the parking lots to the main entries. See Pedestrian Circulation Plan and Vehicular Circulation Plan.

4. If provided, mechanical equipment, appurtenances and utilities, and their associated screening shall be integral to the building design.

Response: All rooftop mechanical equipment and appurtenances & utilities are screened and setback from the face of the building, as well as consistent with the building's material palette. The Health Center *Plus* facility has an on-grade mechanical and electrical yard plant that is designed as an integral part of the building and includes full-height screen walls to screen on-grade mechanical and electrical equipment.

5. *Within the Downtown Area, building and site design shall:*

    a. *Demonstrate conformance with the Downtown Plan Urban Design & Architectural Guidelines;*
    b. *Incorporate urban and architectural design that address human scale and incorporate pedestrian-oriented environment at the street level;*
    c. *Reflect contemporary and historic interpretations of Sonoran Desert architectural traditions, by subdividing the overall massing into smaller elements, expressing small scale details, and recessing fenestrations;*
    d. *Reflect the design features and materials of the urban neighborhoods in which the development is located; and*
    e. *Incorporate enhanced design and aesthetics of building mass, height, materials, and intensity with transitions between adjacent/abutting Type 1 and Type 2 Areas, and adjacent/abutting Type 2 Areas and existing development outside the Downtown Area.*

Response: The proposed facility is not located within the Downtown Area.

6. *The location of artwork provided in accordance with the Cultural Improvement Program or Public Art Program shall address the following criteria:*

    a. *Accessibility to the public;*
    b. *Location near pedestrian circulation routes consistent with existing or future development or natural features;*
    c. *Location near the primary pedestrian or vehicular entrance of a development;*
    d. *Location in conformance with the Design Standards and Policies Manual for locations affecting existing utilities, public utility easements, and vehicular sight distance requirements; and*
    e. *Location in conformance to standards for public safety.*

Response: The proposed facility is not subject to the CIP or PAP criteria.

8. DESIGN GUIDELINES

AIRPARK ENVIRONMENTAL PLANNING

GOAL EP 1—*Reduce energy consumption through environmentally sensitive land use practices and design policies.*

- *Policy EP1.1—Promote green building alternatives that support sustainable, energy-efficient development.*

- *Policy EP1.3—Promote landscape design and irrigation methods that contribute to water and energy conservation.*

- *Policy EP1.4—Promote solar and alternative energy development standards in building and site design.*

- *Policy EP 1.7—Encourage design concepts that maximize building efficiency such as building orientation, air circulation, and shading.*

Response: The Health Center *Plus* facility will meet the City's adopted International Green Construction Code (IgCC), which mandates sustainable design enhancements, such as energy efficiency systems design, EV-ready charging stations, PV solar parking canopies, and heat island mitigation strategies. Low water native plant species have been selected for a natural desert landscape palette, as well as a significant number of native species will be salvaged from the Site pre-construction. The facility is strategically orientated to maximize views for the main public spines to the surrounding Sonoran Desert views, as well as to optimize energy efficiency with its east-west axis orientation. Natural shading is provided throughout the Project to support the use of the respite trail network and sidewalks.

GOAL EP 2—*Promote the Greater Airpark as a laboratory for methods of energy efficiency and sustainable design.*

- *Policy EP2.2—Support the attraction and development of green and other energy-efficient technologies to the greater airpark.*

Response: Medical office and services are a positive contributor to science and research development and its proximity will support forward thinking partnerships in and around the Greater Airpark area.

GOAL EP 3—*Reduce the Urban Heat Island effect in the Greater Airpark*

- *Policy EP3.2—Increase the use of effective natural and man-made shading for parking lots, streets, and pedestrian areas.*

- *Policy EP3.3—Incorporate opportunities for "cool" technologies that will help reduce the heat island effects, such as alternative pavement material, high solar reflectance building surface treatments, passive cooling elements, open spaces, and "green" roofs.*

- *Policy EP3.4—Increase tree planting as a ground-level ozone reduction measure.*

Response: Parking fields have been purposely designed to run along the east—west axis, with ample shading being provided on collector paths from the southern exposure. The roofing will feature a high solar reflectance, and the Project maximizes the amount of open space to support wellness and use of the pedestrian pathways. Tree sizes and quantities will adhere to City requirements and will be further supplemented by landscape salvage efforts for mature species integration into the Project. The densities of vegetation are planned to increase next to areas of heavy pedestrian use and major building elements.

GOAL EP 4—*Foster a sustainable balance between environmental stewardship and the development and redevelopment of the Greater Airpark*

- *Policy EP4.2—Encourage all developments to respect and respond to the Sonoran Desert climate.*

- *Policy EP4.8—Building design should respect and enhance the Sonoran Desert context of the Greater Airpark using building orientation, landscape buffers, color, textures, materials, and lighting.*

Response: The Health Center *Plus* facility is oriented to respect the Sonoran climate and pedestrian pathways are planned to have natural shading to provide for comfort.

Banner Health design standards were developed to be rooted in the themes of the Sonoran Desert context. The material configuration and types mimic natural landforms and textures, and to promote visual connectivity to the desert surroundings. Landscape design supports pedestrian movement and is aligned with the natural water flows through the Site.

GOAL EP 5—*Improve water conservation efforts and encourage the reuse of graywater*

- *Policy EP5.1—Review future development impacts on water use, and encourage development design that fosters water conservation*

- *Policy EP5.3—Promote rainwater harvesting techniques in site planning, landscape design, and landscape improvements for all development types.*

- *Policy EP5.4—Encourage landscape improvements that limit the amount of turf area and make optimal use of indigenous and adapted desert plants.*

- *Policy EP5.5—Use the City's Water Campus as an environmental education center to foster public awareness of water use and waste water reclamation.*

Response: Water is critical component to the promotion of patient wellness within the healthcare facilities. Banner is committed to solutions that reduce water use without compromising patient care, including use of targeted areas through landscape design and low water use plant species. Open space and pedestrian pathways are planned to either have natural bioswales to promote water movement or depressions to increase water infiltration. Basins are designed to be integrated into the natural landscape design character and treat the first flush of any on-site collection. The Project includes no expansive turf areas are—the landscape palette will consist of indigenous and adapted desert plant species.

GOAL EP 6—*Effectively manage and protect local and regional stormwater drainage ways.*

- *Policy EP6.1—Establish flood control design criteria that recognize, considers, and respects: sensitive aesthetic treatment; multiple uses that harmonize the character; and impact on wildlife habitats.*

- *Policy EP6.2—Continue to monitor stormwater runoff to identify and reduce stormwater pollution.*

- *Policy EP6.5—Integrate alternative stormwater detention practices, such as rainwater harvesting and water infiltration methods.*

Response: The detention basins have been designed to convey a natural aesthetic and like the existing washes will promote natural habitat and native plant population. Amenities, such as the respite walking trail and other passive areas, are planned to be integrated around the water conveyance systems.

Treatment is being provided to the stormwater before it leaves the Site for enhanced water quality. Additionally, a stormwater pollution prevention plan (SWPP) will be developed to protect stormwater from pollutants prior to, during, and post construction. The first flush will be retained on-site, which is anticipated to contain the most sediment and oils, reducing the stormwater pollution through the Site.

In areas of open space, the Project includes shallow areas and depressions to promote good infiltration, thus create bioswales along public pathways to promote wildlife habitat and natural landscape zones.

SCOTTSDALE SENSITIVE DESIGN PROGRAM

1. *The design character of any area should be enhanced and strengthened by new development.*

Response: The design of the Health Center *Plus* is consistent with the surrounding development along the Loop 101 Freeway corridor, and will add value through the use placement in proximity to other uses. The natural desert context will be supported and celebrated through the landscape design and open space planning.

2. *Development, through appropriate siting and orientation of buildings, should recognize and preserve established major vistas, as well as protect natural features.*

Response: The building is orientated to maximize views for patient, visitor, and staff areas to the surrounding unmatched Sonoran Desert context, as well as to optimize energy efficiency with its east-west orientation. Natural shading is provided throughout the Site to support the use of the pedestrian network of trails and sidewalk.

3. *Development should be sensitive to existing topography and landscaping.*

Response: All building finish floors will be set a minimum of 3' above the highest adjacent grade or above the 500-year storm event to meet City and Federal floodplain requirements. A 500-year floodplain analysis was conducted with assumptions for the grading to the west and results showed that the 500-year water surface elevation does not govern the finish floor elevation. The finished floor will be set at least 3' above highest adjacent grade. The site design will allow for the pedestrian network of trails to engage the natural topography. A natural desert palette will be developed for the landscaping and will be aided by an appropriate salvage of existing species on site.

4. *Development should protect the character of the Sonoran Desert by preserving and restoring natural habitats and ecological processes.*

Response: The open space network seeks to restore and redevelop the natural desert conditions on the Site. Historic water conveyance through the site is maintained through the site planning with the existing topography and infrastructure enhancements. Micro-basins and bioswales will be paired with walking trails and pedestrian network of paths to allow for connectivity with the natural systems.

5. *The design of the public realm, including streetscapes, parks, plazas and civic amenities, is an opportunity to provide identity to the community and to convey its design expectations.*

Response: This Project seeks to promote a healing environment through its programmatic mission, as well as with its site design and building architecture. Community pathways are preserved and connections are enhanced with this development.

6. *Developments should integrate alternative modes of transportation, including bicycles and bus access, within the pedestrian network that encourage social contact and interaction within the community.*

Response: EV-ready charging stations are planned, and bicycle parking is provided at both staff and visitor entry points. There are no bus network connections currently in this area of Scottsdale.

7. *Development should show consideration for the pedestrian by providing landscaping and shading elements as well as inviting access connections to adjacent developments.*

Response: The majority of the pedestrian routes to the building's entrances are purposely planned along the east-west orientation to allow for concentrated shaded routes from the southern exposure. A multi-use walking trail is provided along Mayo Boulevard to allow for site users and the general public to connect with the natural desert context and the views outward from the site.

8. *Buildings should be designed with a logical hierarchy of masses.*

Response: The design of the Health Center *Plus* facility uses both material designation and height to mark the entry to the facility. In a healing environment, providing intuitive wayfinding is critical and the Banner design standards promote this hierarchy.

9. *The design of the built environment should respond to the desert environment*

Response: The massing of the Health Center *Plus* is aligned with the proper solar orientation as well as with respect to naturally ventilating winds through the Site with the planned open spaces adjacent to the structures. Generous landscape setbacks are provided along the rights-of-way that greatly exceeds the required minimum to better integrate this

structure its neighboring context. Views to the surround desert context are also promoted from this Site with the placement of the structure.

10. *Developments should strive to incorporate sustainable and healthy building practices and products.*

Response: Banner is committed to energy efficient strategies and the use of healthy building practices. The Health Center *Plus* facility will meet the City's adopted International Green Construction Code (IgCC), which mandates many sustainable design enhancements to the Site, inclusive of energy efficiency systems design, EV-ready charging stations, PV parking canopies, and heat island mitigation strategies. It also includes the use of healthy building practices and products.

11. *Landscape design should respond to the desert environment by utilizing a variety of mature landscape materials indigenous to the arid region.*

Response: The landscape palette builds off the salvaged inventory of indigenous landscape materials on-site and create a new experience that will celebrate the existing desert context.

12. *Site design should incorporate techniques for efficient water use by providing desert adapted landscaping and preserving native plants.*

Response: The landscape palette will build on the salvaged inventory of indigenous landscape materials on the site and create a new experience that will celebrate the existing desert context, while be considerate for efficient water use.

13. *The extent and quality of lighting should be integrally designed as part of the built environment.*

Response: Exterior lighting will promote safe access to/from the facility and support wayfinding on-site.

14. *Signage should consider the distinctive qualities and character of the surrounding context in terms of size, color, location and illumination.*

Response: The Banner sign program will use materials from the building composition which are rooted in themes from the Sonoran Desert. The placement, size, and illumination support appropriate, timely and safe wayfinding practices on-site for both vehicles and pedestrian access.

DESIGN STANDARDS AND POLICIES MANUAL

All design and construction of the Project will conform with the City's Design Standards & Policies Manual.

GREATER PHOENIX METRO GREEN INFRASTRUCTURE HANDBOOK

The purpose of this Greater Phoenix Metro Green Infrastructure Handbook ("Handbook") is to provide members of the design, planning, and development communities with guidance and specific techniques for low impact development (LID). The Handbook is intended to address non-point source pollutant load reductions, conformance with first-flush requirements, and stormwater peak flow and volume reductions for water quality and flood hazard mitigation. Equally important in the Sonoran Desert is the opportunity to ameliorate water supply/demand concerns by increasing rainfall infiltration, recharging groundwater, and harvesting stormwater to offset potable water used for outdoor purposes.

This project will implement LID best practices according to the Handbook. The first flush rainfall is the design storm used in the handbook since 82% of the storms record the first flush.

- Curb Openings: Parking lot and other site runoff will be routed through curb openings leading to vegetated landscape areas where possible, to promote infiltration and absorption.

- Concentrated flow inlets and rip rap spillway-on-site runoff will be conveyed to concentrated flow inlets and rip rap spillways to trap sediment.

- Bioswales: The vegetated or rock bioswales can provide additional removal of total suspended solids (TSS) as they drop out while slowly flowing through the swale in the smaller storms also reducing erosion.

- Stormwater First Flush Basins: The stormwater basins will detain at a minimum the first flush volume equivalent to the first 0.5" of rainfall, which is approximately the average annual runoff volume.

- Stormwater Pre versus Post Basins-sized to ensure post design flows off the site do not exceed pre-development flows (which often times exceeds the first flush) will detain water and allow for even more infiltration into the ground before slowly leaving the site.

- Water Quality Units: The first flush volume will be routed through hydrodynamic separator storm water quality units, which will further reduce the total suspended solids (TSS) and will then slowly be released downstream.
- Overflow structures will be designed to take the larger storms greater than the first flush downstream to other drainage facilities (sediment basins, culverts, storm drains).

- Landscape: The above LID practices will be combined with LID landscape.

MAG SUPPLEMENTS

All civil construction for this project will be designed in conformance with the latest edition of the Maricopa Association of Governments (MAG) standard specifications and details, with City of Scottsdale amendments.

OFFICE DESIGN GUIDELINES

The Health Center *Plus* facility is designed with unmatched quality, which mirrors the quality of care and commitment to the community that Banner provides in all of its facilities. It will be designed using the foundation of the new Banner Health Center *Plus* model, as established at the Banner Health Center *Plus* at New River Trail campus in Glendale (located at 75th Avenue and the Loop 101 Freeway). However, the Scottsdale Banner Health Center *Plus* design has been enhanced to further respond to its significant relationship with its McDowell Mountains and Sonoran Desert context. The Banner design standards are rooted in its Southwestern context and drive unique project specific solutions that accentuate appropriate local connections and responses to climatic influences. The Project will feature a unique architectural element, a 'lantern of hope' at the building entry which serves as a beacon of health and hope outwards to the community and enriches the visitor and patient experience within the building with its key programmatic placement off the offset core and lobbies.

The orientation of the Site and building are driven by its physical and environmental context. The freeway orients the Site in the east-west direction, promoting maximum site visibility to ease anxiety for the healthcare users and optimize mechanical systems with fenestration strategies. New pedestrian linkages are strengthened along Mayo Boulevard, which lead to the various building entries.

The Site design looks to maximize its open space connections to its local context by providing various paths to and from the building entries to external path networks and to the future adjacent retail parcels to the east of the Site. Adjacent to the main entry will be a reflective garden space with a meandering path that engages the senses with local flora and fauna and gives users the proper space to decompress and connect with nature during their healthcare journey.

This Project will be one of Banner's most significant investments into the Scottsdale and the North Phoenix/Scottsdale healthcare marketplace. The facility's design plays an important role in communicating the mission of delivering a high-quality of care to the community. A focus on health and wellness will elevate the experience of those visiting and be treated by Banner. To emphasize placemaking and connectivity with the community, the natural desert site will be celebrated as well as the direct views to the McDowell preserve to the north and east of the Site.

LIGHTING DESIGN GUIDELINES

1. *The city places a high value on lighting design and technologies that are energy efficient and sensitive to the surrounding context.*

    - Exterior lighting sources are energy efficient LED.

- Exterior lighting is automatically controlled via a highly programmable, digital, astronomical timer.

- Color temperature and light trespass have been analyzed and selected/designed accordingly.

2. *Lighting should provide a sense of personal safety in active areas of the site; allow for an even distribution of illumination in commonly used vehicular and pedestrian areas; and highlight architectural features of significance and meaning during nighttime hours.*

    - Exterior lighting has been designed with a focus on user safety, circulation, wayfinding, and architectural aesthetic.

3. *High-pressure-sodium (HPS) is the preferred light source for most large-scale projects. The preferred light source for smaller scale applications include linear fluorescent (RE170 series, triple-tube 4 pin), compact fluorescent, induction and LED lamps.*

    - All light sources are 3000k LED.

4. *Incandescent and halogen sources are discouraged in all but the most unique applications.*

    - All light sources are 3000k LED.

5. *The design of the lighting systems should anticipate lighting levels that will vary depending on building use, hours of operation, occupancy, and seasonal changes, and operate for only the minimum required hours.*

    - Exterior lighting is automatically controlled via a highly programmable, digital, astronomical timer.

6. *Recommended light level guidelines and uniformity ratios established in the Illuminating Engineering Society of North America (IESNA) Lighting Requirements should be used, along with predominant lighting characteristics of the surrounding area when determining appropriate lighting design solutions.*

    - Exterior lighting design is based on IESNA and City standards and requirements.

7. *Light glare or excess brightness should be minimized. Light trespass should be controlled by shielding or aiming fixtures away from adjacent uses.*

    - Light fixture distribution and placement have been carefully considered to mitigate light trespass, excess brightness and glare.

8. *Architectural and landscape lighting should only be used to highlight special features and to embellish the lighting levels of ground level pedestrian areas.*

    - Architectural and landscape lighting is specified to highlight key site design aspects in areas of high visibility and/or circulation.

9. *Limited low voltage lighting of landscape features and plant material area acceptable when associated with pedestrian spaces and site entrance.*

    - Landscape lighting is specified to highlight key site design aspects in areas of high visibility and/or circulation.

SHADING DESIGN GUIDELINES

The City's shading concepts are in response to the warm, dry climate of the Sonoran Desert that can have intense sun light exposure. The goals are to reduce energy consumption and to achieve indoor and outdoor spaces that are comfortable. The concepts embodied by the Shading Design Guidelines include a three tier approach to shading and climate appropriateness, heat avoidance through shading, passive cooling, and mechanical equipment.

- *Heat Avoidance Through Shading*

    - *'Hard' exterior Shading devices (horizontal overhangs, vertical fins, eggcrate (grids and screens), variations of these (clerestory windows, movable devices, louvers, etc.).*

Response: There are multiple approaches to properly protecting the fenestration of the Health Center *Plus* facility. The primary layer of protection is the glazing spec, with high-performance low-e clear glazing selected to promote transparency while minimizing the heat load on the glass. Further, at primary Project entries, deep canopies are provided to protect the glazing and allow for a covered entry into the facility. The building is oriented along the freeway elevation which is generally in the east-west direction. Accordingly, the majority of public areas and the maximized glazing is provided on the north façade.

    - *'Soft' shading through plants (trees, vines on trellis, etc.)*

Response: Vegetation is clustered in areas directly adjacent to the building's entries and building fenestration to allow for maximize shading and visual connection to nature for building occupants. Mature salvaged species will be placed near building entries to allow for maximum immediate shading and scale impact. Pedestrian routes to the main entry will also be properly shaded with tree canopies.

- *Passive Cooling*

- *Shaded outdoor spaces, breezeways, cooling towers*

Response: Major building access from the parking lots are oriented in the east-west axis to allow for ample shading from the southern exposure. Additionally open space is planned to take advantage of the prevailing winds from the southwest to provide passive cooling for outdoor use and gathering.

- *Orientation of windows – minimize on south and west facades, angle so as to not have direct sunlight, double walls and/or roofs, etc.*

Response: As a primary approach to energy use and shading, the building is properly orientated along the east-west axis, which helps to maximize view opportunities to the north to the McDowell Mountains and Sonoran Desert, as well as control impacts to glazing on the other facades.

- *Minimal heat gain through treated glazing*

Response: The baseline for shading approach to Banner's glazed openings is high performance glass that exceeds the City's requirements for thermal performance.

- *Mechanical Equipment*

- *Ground (not roof) mounted, pre-cooling systems, over-night cold storage, etc.*

Response: The Project utilizes ground and roof mounted mechanical equipment to effectively and efficiently deliver the right amount of systems to the building based on equipment loads and operations.

- *'Smart' systems tuned to use, time of day, orientation of spaces, etc.*

Response: Banner intends on utilizing *Skyspark Controls* front end controls system that continues to monitor the mechanical system daily to ensure it is operating effectively and efficiently. All fans and pumps have variable frequency drives to control the speed of the motors to accurately track the load required as it changes throughout the day, thus creating energy efficiencies.