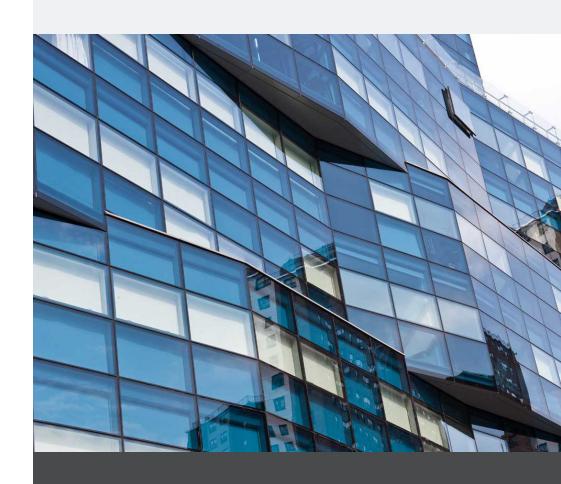


Design Guidelines June 2020 Revised April 2022

CITY OF HENDERSON WEST HENDERSON GLOBAL BUSINESS DISTRICT





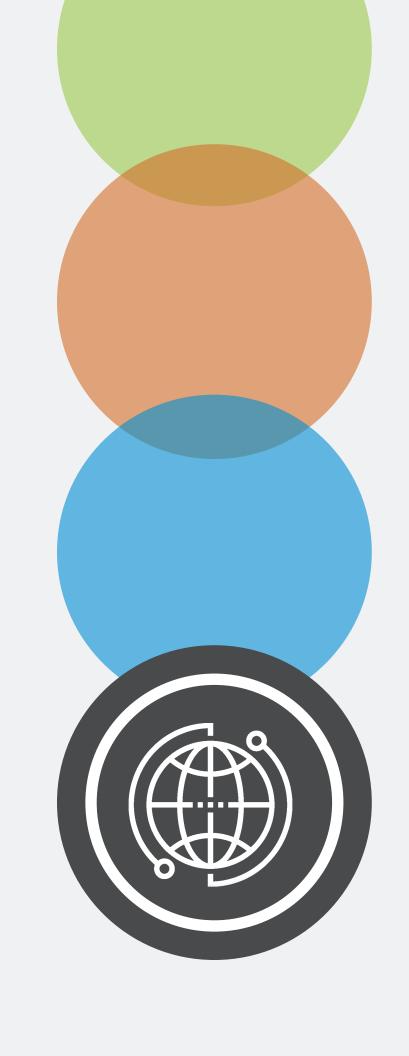


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CHAPTER 1: INTRODUCTION







1. INTRODUCTION

1.1 Title

This Title shall be known and officially cited as the "West Henderson Global Business District Design Guidelines." It is referred to in this Title as the "Design Guidelines" or the area as the West Henderson Global Business District "WHGBD".

1.2 **Authority**

These Design Guidelines are enacted pursuant to the powers granted and limitation imposed by laws of the State of Nevada, including the statutory authority granted in Nevada Revised Statutes (NRS) Chapter 278.

References to the City of Henderson "Code" shall refer to the latest edition of the Development Code of the City of Henderson, Nevada as approved by the City Council and enacted pursuant to the powers granted and limitations imposed by laws of the State of Nevada, including the statutory authority granted in Nevada

Revised Statutes (NRS) Chapter 278, and all other relevant laws of the State of Nevada.

1.3 <u>Location & Application of</u> Standards

These standards shall apply to those areas as shown on Exhibit A: Vicinity Map. All waivers included within 19.6.9.D.2 of the Henderson Development Code are applicable for use within the WHGBD. Applications for waivers must follow the procedure outlined within 19.6.9.D of the City of Henderson Development Code. Compensating benefits for all waivers or modifications in the WHGBD must be directly related to the relief being requested. Compensating benefits that are most appropriate for nonresidential development will be prioritized and may include but are not limited to:

 Outdoor seating for employees, open space, sculpture gardens, etc;



is primed to become the premier location for Commercial, Business and Employment uses.

- Bike facilities, i.e. storage, showers, lockers;
- Public art;
- Indoor employee break rooms and cafés;
- · Employee gym;
- Children's play area;
- Onsite daycare; and,
- Dedicated space for activities such as: fitness classes, on-site health screening, training, or office games.

The WHGBD is located in T. 23 S., R. 61 E., M.D.M., Sections 10, 14, and 15, City of Henderson, Clark County, Nevada. Situated in West Henderson, the northern portion contains 161.31 acres and is located along Raiders Way, south of Bruner Avenue. The southern portion contains 356.94 acres and is located along Via Inspirada, south of Larson Lane (see **Exhibit A: Vicinity Map**).

1.4 <u>West Henderson Land</u> Use Plan

The West Henderson Land Use Plan emphasizes the importance of economic development in this area as Henderson's remaining new growth area and to attain the City's longterm goal to achieve a better jobs to housing balance. Within this Plan, the WHGBD is identified as Industrial Special Districts, positioning the area to include commercial and employment land uses that are compatible with the City's goals to prohibit high consumptive water Historical definitions of users. industrial development may have been incompatible with other uses, but recent trends indicate advanced manufacturing, flex/tech, and other uses may be appropriate to integrate with commercial, retail and mixeduse.

1.5 Limited Transition Areas The WHGBD, was previously named

the Limited Transition Area or "LTA" and is currently defined in the existing Land Use Plan as follows: "Acquired through the Omnibus Public Land Management Act of 2009, the Limited Transition Areas area envisioned as a "premier business and employment center for the Intermountain West." The Act provides for the transfer of land from the BLM to the City to be sold for the sole purpose of nonresidential uses and certain public uses. Land uses in the WHGBD located within the Airport Environs Overlay District should be compatible with airport noise planning. The 356-acre southern area (Commerce Center) will provide an opportunity for employment and business development to serve not only West Henderson but the entire Las Vegas Valley. The WHGBD replaces the former LTA area and seeks to rebrand the area.

1.6 <u>Vision/Guiding Principles</u>

The West Henderson Global Business District (WHGBD) consist of approximately 573 acres of land located within West Henderson. The City envisions these areas as commercial, business premier and employment centers that create high-quality jobs and will not only serve the residents of the Las Vegas Valley, but will become a hub for business throughout the southwestern U.S (High quality jobs are those paying salaries at 80% of the statewide average wage. This is currently approximately \$23 per hour or ~\$44,000 annually). The WHGBD will create a seamless interface with surrounding communities integrating balanced complementary uses that respond

TECHNOLOGY



It's no surprise that technology is the biggest driver behind the design of corporate, commercial, and employment buildings. The modern workforce is increasingly mobile. Not only do workers desire more remote work, but they also want more control over their surroundings within the office. So, it becomes more experiential—more "human." The corporate office becomes a destination.

VISION



The City is committed to developing quality commercial, industrial, retail, office, and employment centers that will diversify the economy, create quality jobs, strive to balance the City's jobs to housing ratio and benefit the current and future residents of Henderson.

DESIGN



High quality buildings support and encourage high quality jobs.

to surrounding neighborhood character while prohibiting high consumptive water users.

The vision includes accommodating uses that align with the City's Economic Development Strategy and will ultimately support growth in the City's target industries, including advanced manufacturing, high-tech employment and business centers, commerce centers crucial to distributing goods across the United States, biotechnology campuses, and innovation centers. These industries will help to spur community and economic development opportunities spanning the entire West Henderson area.

Attracting major employers, particularly those in high-tech fields such as advanced manufacturing, requires a catalyst or a reason to locate in a particular area. With the increasing population growth occurring across the southwest, and because of its proximity to the Henderson Executive Airport and Interstate 15, West Henderson is the ideal location to implement the WHGBD vision for growth and innovation.

The City encourages creative benefits and amenities to recruit a talented workforce that will attract the employers that rely on them. Market studies suggest that employees are looking for convenience and proximity to residential areas, high quality public transit, access to retail, neighborhood resources (coffee shops, clubs, bars, parks), flexible employment benefits such as an onsite gym or daycare, home loan assistance and employer-assisted housing partnerships. The City offers a variety of programs and partnerships to support an educated workforce and to tailor housing, transit and amenities to evolving lifestyle preferences.

West Henderson was identified as a priority area in the Henderson Strong Comprehensive Plan with the goal of spurring economic development and improving the City's jobs to housing balance. Development of the WHGBD will implement this vision. Per the enacting legislation, residential uses will not be permitted in the existing GHGBD, but complementary residential may be possible in additional WHGBD area(s) in the future.

Given the proximity of adjacent residential east of the Northern portion of the WHGBD, heavy industrial uses will not be permitted in this area.

1.7 **Purpose and Intent**

The purpose of these Design Guidelines is to implement the vision of the designated WHGBD and vision for West Henderson described in the Comprehensive Plan and West Henderson Land Use Plan. The City is committed to developing quality commercial, industrial, retail, office, institutional, and employment centers that will diversify the economy, create quality jobs, strive to balance the City's jobs to housing ratio, protect and conserve the City's limited water resources, and benefit the current and future residents of Henderson. The Design Guidelines herein establish general concepts and provide direction for the expression of the character and vision for this area. The Design Guidelines are intended to provide an overall framework for future development, and establish a brand identity for a high quality job and innovation district, accompanied by quality development, architecture, and character for the WHGBD.

High Quality Jobs & Business District

High quality buildings support and encourage high quality jobs. In an effort to ensure high quality employment based development, the City reserves these special employment districts for high quality jobs. High quality jobs are defined as those which: i) provide for a wage to support a decent standard of living, ii) provide for economic security, improving health through paid time off and a benefits plan, promote work-life balance for employees, iii) include career building opportunities through training and mentorship for personal growth and business growth, iv) provide for incentives for employees to build financial stability, and v) provide for a working environment that prioritizes wellbeing of employees balanced with the needs of the business.

As described in the Priority Area visualization for West Henderson in the City's Comprehensive Plan, the desired employment opportunities in West Henderson and specifically in the federally-designated WHGBD (formerly LTAS) include:

· Uses that foster job creation that leverage

proximity to the Henderson Executive and McCarran International Airports, as well as Interstate 15 interchanges at Starr and Sloan Roads;

- Promote the creation of an innovation area that integrates a combination of Class A and creative office development, light industrial, manufacturing and maker spaces;
- Develop a brand identity for a prominent employment center in West Henderson;
- Promote low water consumptive land use and development practices; and
- Create job opportunities for residents that live in and near West Henderson.

The purpose of these Design Guidelines is to:

- Communicate to the development community and site users, in advance of applications being filed, the design and development standards expectations for the WHGBD;
- Facilitate consistent application of design objectives;
- Protect investment throughout the City by requiring consistently high-quality development;
- Encourage low water consumptive projects appropriate to the context of the City's climate and urban environment;
- Facilitate safe, functional, and attractive development; and
- Foster a brand identity for a key employment core for the City

Consumptive Water Use

Environmental protection and environmental standards such as low water consumptive technologies are key elements of sustainable development in the WHGBD. Consumptive Water Use is defined by the Southern Nevada Water Authority as water withdrawals (or diversions) minus any water that is used and not returned to the wastewater collection system or sewer.

1.8 How to Use the Design Guidelines

The WHGBD Design Guidelines provide direction for applying policies contained within the Henderson Strong Comprehensive Plan Framework and the West Henderson Land Use Plan. Incorporating these guidelines into a project's design will encourage compatible architecture, pedestrian activity, context-sensitive design, and contribute to placemaking.

The provisions set forth in this document identify the desired level of design quality for all development. However, flexibility is necessary and encouraged to achieve excellent design. Therefore, the use of the words "shall "and "must" have been purposely limited within the specific guidelines. Each application for development, however, should demonstrate to what extent it incorporates these guidelines, through the Project Compliance Information Form described in Chapter 8.





1.9 Reliance on Design Guidelines and Applicable Rules

The WHGBD shall be completed as described in <u>Section 1.3</u> and as defined on **Exhibit A: Vicinity Map** in accordance with these Design Guidelines, as provided herein and as set forth within the WHGBD Master Plan. Should the Design Guidelines fail to address a Code requirement then the Code shall prevail. In the event of a conflict between these Design guidelines and the Code, these Design Guidelines shall prevail.

1.10 Definitions

For all purposes of this document, except as otherwise expressly provided or unless the context otherwise requires, the following terms shall have the following meanings. Definitions of all capitalized terms not defined within this section shall have the meaning given to them in the City of Henderson Code (Chapter 19.12).

These definitions are intended to facilitate the use of this document and do not supersede other adopted zoning definitions or represent an inclusive list of terms used in the City of Henderson ordinances or regulations.

1.10.1 After-Hours Lighting

Pedestrian lighting, intended to create safe, well-lit pedestrian areas in the evening and at night.

1.10.2 Building Frontage

The length of a building façade that faces any public street.

1.10.3 Dark-Sky Compliant Fixtures

Shielded lighting fixtures which protect adjoining properties from lighting spillover and glare.

1.10.4 Educational Campus

An educational campus is the location of a university, college, or school's main buildings. Campuses are known for their ample size, architecture, landscaping, and numerous student locales. Generally, a campus includes libraries, lecture halls, residence halls and parklike settings.

1.10.5 Food and Beverage Production

The food and beverage production industry encompasses all businesses operating in the

production, processing, or retailing of food and beverage products, excluding the hospitality/ foodservice. Farmers, traders, wholesalers, food manufacturing companies, and retailers together make up the world's largest sector.

1.10.6 Grade/Grading

The ground elevation at any specific point on a construction site, usually where the ground meets the building.

1.10.7 Ground Floor

The lowest story within a building which is accessible from the street, the floor level of which is within three feet above or below curb level.

1.10.8 High-Tech Manufacturing and Assembly

The high-tech manufacturing and assembly industry is comprised of establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products, as well as those engaged in assembling of component parts of manufactured products.

1.10.9 High-Tech Services

The high-tech services industry is a relatively dynamic concept, based on the provision





of information technology to provide high technological content and high value-added services for manufacture and consumption. It includes communications services, computer software, research and development, laboratory testing, and related office-based services.

1.10.10 Lot Coverage

That portion of a lot which is covered by the building footprint.

1.10.11 Mixed-Use Project

A project which combines uses either vertically or horizontally across a site. Mixed use sites are pedestrian-oriented and fosters integration, density and compatibility of land uses and creates a walkable area with uninterrupted pedestrian connections.

1.10.12 Office or Employment Centers

A concentration of primarily single or multi-tenant offices, including corporate, head quarter facilities and community services.

1.10.13 Paseo or Pedestrian Walkway

A walkway that is typically open to the sky and that provides pedestrian passage between structures, or through landscaping, or parking lots, which is distinguished by ground surface treatments that provide for pedestrian safety and ease of movement.

1.10.14 Pedestrian Amenities

Outdoor sidewalk faces, public plazas, retail courtyards, water features, kiosks, paseos, arcades, patios, covered walkways, or spaces for outdoor dining or seating that are located on the Ground Floor, and that are accessible to and available for use by the public.

1.10.15 Pedestrian Lighting

Freestanding lighting fixtures not exceeding a height of thirty-six (36 inches from ground grade level.

1.10.16 **Setback**

A placing of a face of a building on a line some horizontal distance from the building line or of the wall below; The distance of a structure or other feature from the property line or other feature.

1.10.17 Stepback

A variation in roof height, such that the height of the building decreases as it approaches adjacent lower scale buildings.

1.11 Land Use

The WHGBD is comprised of one land use, Business Industrial. This land use includes specific zoning districts that can be used which establish the intended primary and secondary uses that can be implemented. Development standards and permitted uses for each zoning district can be found within the City of Henderson Code (Chapter 19).

1.11.1 Business Industrial

The City's Comprehensive Plan, Henderson Strong, defines the Industrial category as a land use intended to be located in less-invasive areas of the City, typically where regulations are less restrictive to allow typical industrial uses to take place. Surrounding residential should be limited and appropriately buffered from the effects of the industrial use. Primary Uses include: Industrial, manufacturing, and business parks. Secondary uses include: Supporting retail and office, open space, trails, and other public facilities.

Zoning districts include:

• IP (Industrial Park)

1.12 <u>Industrial/Employment Development</u> <u>Design Guidelines</u>

The Design Guidelines contained within this document are intended to address some of the most common, overarching challenges in planning industrial/employment developments. The prime areas of opportunity for attaining high quality design in industrial/employment projects include: minimizing and screening unsightly nuisances; improving the safety of the pedestrian experience along industrial corridors; adequate and safe vehicular access and maneuverability; protecting and conserving the neighborhood architectural character; promoting connectivity between adjacent neighborhoods while maintaining visual and spatial relationships between adjacent buildings; establishing height and massing buffers and transitions between industrial and nonindustrial uses; and strengthening the visual and functional quality of the industrial environment.

- Las Vegas Raiders Headquarters and Training Facility
- 2. Henderson Executive Airport
- 3. Inspirada Town Center
- 4. Inspirada Master Planned Development
- 5. M Resort and Casino
- 6. Edgefield Community
- 7. Southern Highlands
 Master Planned
 Community
- 8. Seven Hills Master Planned Development



CHAPTER 2: SITE DESIGN AND DEVELOPMENT STANDARDS





2. SITE DESIGN & DEVELOPMENT STANDARDS





2.1 Intent

The intent of these Development Standards is to provide standards to appropriately site and develop the WHGBD with a wide range of commercial, office, and industrial uses to ensure the stability of the City's economy; provide a variety of goods and services for employees and visitors; and increase employment opportunities within West Henderson for current and future residents consistent with the Henderson Strong Comprehensive Plan; and ensure that new commercial, office, and industrial development is designed to minimize traffic, parking and visual impacts on surrounding communities, and is appropriate to the physical characteristics of the site and the area where the project is proposed.

2.2 Plotting Criteria

Development standards for the WHGBD shall follow Title 19 unless otherwise noted in this document.

2.3 Permitted Uses

The WHGBD is intended to provide a location for a range of employment, commercial, industrial, office, institutional, and service uses that are environmentally sustainable, create quality jobs, and benefit the current and future residents and workforce in Henderson. The Business Industrial Land

Use includes specific zoning districts that establish the primary and secondary uses that can be implemented. Permitted uses for the WHGBD are established in Table 1 below. This list is intended to be exclusive; if not listed below, the use is prohibited. The City will also evaluate proposed uses based upon Consumptive Water Use, described in Section 2.3.1. The City may further limit the allowed uses listed in Table 1, at the sole discretion of the Director of Utility Services, based on Consumptive Water Use. All other standards contained within Title 19 of the City of Henderson Development Code shall apply.

2.3.1 Consumptive Water Use

At the time of any entitlement application, business license, civil improvement plan, or building permit the City may require written documentation of the proposed use's Consumptive Water Use. If the proposed use's Consumptive Water Use is 10 million gallons of water per year or greater, the applicant shall be required to provide written documentation that, at a minimum, provides the following information:

 Projected annual water usage, including water usage based upon project phasing and projected buildout of the project; and



The WHGBD are intended to provide a location for a range of employment, industrial, office, and service uses to create quality jobs, and benefit the current and future residents and workforce in Henderson.

- Projected discharge to the wastewater system, based upon project phasing and projected buildout of the project; and
- The business or company's proposed plan to achieve water use efficiency; and
- The business or company's proposed plan to mitigate its impact on the limited water resources available to the city.

Table 1: Allowed Uses

WHGBD General Industry Category	WHGBD Uses	City of Henderson Title 19 Use
High-Tech Manufacturing and Assembly	Automotive and Alternative Vehicle Manufacturing and Assembly Pharmaceutical and Medicine Industrial Machinery Commercial and Service Industry Machinery Manufacturing Engine, Turbine, and Power Transmission Equipment Manufacturing General Purpose Machinery Computer and Peripheral Equipment Manufacturing Communications Equipment Manufacturing Audio and Visual Equipment Manufacturing Basic Metals and Fabricated Metal Products Manufacturing Navigational, Measuring, Electromedical, and Control Instruments Manufacturing Manufacturing and Reproducing Magnetic and Optical Media Electrical Equipment Manufacturing Fiber and Fiber Optic Manufacturing Textiles, Textile Products, Leather and Footwear Manufacturing Blacksmith and Welding Shop or Machine Shop Foundry Casting Electro-Winding Lightweight Nonferrous Metals (not causing noxious fumes) Aerospace Product and Parts Manufacturing and Assembly	Industry
	General Manufacturing and Assembly	

^{*}All WHGBD General Industry Categories as defined within 1.10 Definitions.







WHGBD General Industry Category	WHGBD Uses	City of Henderson Title 19 Use	
	Scientific Research and Development Center		
	Computer Software and Other Computer Related Products and Services Development	Industry	
	Motion Picture Film or Television Set and Prop Production	Communication Facility	
	Motion Picture Studio		
	Television Studio		
	Laboratory, Experimental, Research or Testing (excluding animal or human testing)	Laboratory	
	Quality Control Laboratory	,	
	Software Publishers		
High-Tech Services	Architectural, Engineering, and Related Services		
Services	Computer Systems Design and Related Services		
	Computer Graphics Studio		
	Management, Scientific, and Technical Consulting Services		
	Management of Companies and Enterprises	Office	
	Motion Picture Film or Television Computer Design, Computer Graphics, or Animation		
	Motion Picture Film or Television Sound Lab		
	Motion Picture Film or Television Tape Editing		
	Motion Picture Film or Television Video and Audio Processing		
Office or	Office, Business or Professional	Ott:	
Employment Centers	Office, Corporate Headquarters	Office	
Food and	Food Products Manufacturing	Industry	
Beverage Production	Bakery Goods Manufacturing		
Educational Campus	School, professional or scientific - including classroom or lecture instruction, trade school, nor any school specializing in manual training, shop work or in the repair or maintenance of machinery or mechanical equipment.	Employment & Training Center, Non-Profit School, Public or Private School, Business, Trade, or Vocational	

^{*}All WHGBD General Industry Categories as defined within 1.10 Definitions.

2.4 Accessory Uses

Accessory uses within the WHGBD must support the Permitted Uses listed in Section 2.3. Each of the uses listed below shall only be approved as an accessory and necessary component of one of the uses listed within Section 2.3 as a use located on the same property. Accessory uses below, if proposed as a primary use, shall only be permitted if approved through the Conditional Use Permit process as outlined in Title 19. Accessory

uses proposed as a primary use, must provide clear and convincing evidence as to why the use shall be permitted as a primary use, how the use meets or exceeds the intent of preferred uses, and how it complies with Section 1.7 Purpose and Intent of this document, specifically the "High Quality Jobs & Innovation District" section. All uses listed below shall be approved by the Community Development & Services Director.















Accessory WHGBD Uses	Accessory WHGBD Uses	City of Henderson Title 19 Use
	Distribution Center, Plant, or Warehouse	Wholesaling, Distribution, and Storage
	Storage Yard or Parts Storage	Warehousing and/or Storage Yard
	Electroplating	Industry
	Display Room, Outdoor Display, Sales, or Gallery	Vehicle Sales Equipment Sales Outdoor Display / Sale
	Bank	Financial Institution
Accessory	Gym or Fitness Center	Personal Improvement Service
Uses	Wine/Beer Tasting Establishment	Brewpub/Microbrewery/Craft Distillery
	Beauty Shop, Salon, Nail Studio, or Barber	Personal Service
	Print Shop or Blueprinting	Retail Sales and Service
	Café, Restaurant, or Gastropub	Eating and Drinking Establishment
	Daycare Facility	Day Care Facility
	Government Facilities	Government Office Public Safety Facility
	Medical Clinic or Ambulatory Center	Emergency Health Care Facility

2.5 Use Restrictions

Industrial uses listed as 'Prohibited Industrial Uses' in the Development Code Section 19.5.6.A.1 are also prohibited in the West Henderson Global Business District.

2.6 Residential Adjacency Standards

Much of the southern and eastern boundary of the WHGBD is directly adjacent to residential land uses within Inspirada and Inspirada Town Center. In order to protect and buffer these residential areas, WHGBD structures and activities must be located and designed to avoid creating nuisances and hazards for adjoining properties. The references hereafter in this Section 2.6

for the terms "adjacent" or "adjacency" shall have the meaning of sharing a common property line or must be separated by a major collector or higher roadway classification, or must be less than 250 feet from a residential property line to the primary structure of the proposed use. The following shall be considered during the site design process:

 Activities generating noise above 60 DB, traffic with traffic counts in excess of acceptable standards adjacent to a residential use, dust, or odor beyond what is allowable in Title 19 and activities using hazardous materials must be located adjacent to similar activities on adjacent properties. The





location of these activities adjacent to residential or other sensitive uses, such as schools, parks, playgrounds, libraries, and other similar uses, is prohibited.

- Access and circulation driveways, trash and storage areas, and rooftop equipment must be located at least 250' from the property line of adjacent residential uses.
- To maintain a livable environment, residential and non-residential uses should be separated using a combination of decorative masonry walls and landscaping.
- Parking lots within the WHGBD should not have access on otherwise intact residential streets and should be separated from these streets by a three (3) foot high decorative masonry walls or appropriate landscape berms, at least four (4) feet in height. The masonry wall and landscape berm may be combined for a maximum of seven (7) feet in height.
- Windows shall be orientated to preclude a direct line of sight into adjacent, residential private open spaces. First floor windows may be appropriate if screened with walls, landscape or fencing.
- Structures that back up to the common open spaces of residential developments, parks or community facilities, the WHGBD setback area shall be landscaped as well as functionally and/ or visually combined with the residential open space, where possible.
- WHGBD structures shall be limited to a singlestory when located adjacent to an existing singlestory residential structure.

2.7 <u>Site Planning and Building Orientation</u>

The City expects that the WHGBD will develop and function as a high-quality employment district and corridor. The purpose of these employment districts is to create a campus-like feel by functionally organizing buildings on the site, creating aesthetically pleasing special arrangements, and by providing consistent streetscapes and systems of plazas, pathways, and trails that are based on walkability and placemaking concepts. The following shall be demonstrated on all site plans:

- Cluster building structures to create a campuslike setting that takes advantage of shared open space and pedestrian amenities;
- Buildings and open spaces must be located and

- oriented to maximize shade, solar energy, and natural heating/cooling;
- Public entrances and primary building elevations shall be oriented toward public streets;
- Only active building elevations, never blank walls or loading areas, shall face public streets;
- On corner sites, buildings shall be located as near to the intersection as possible to enliven the streetscape and add visual interest;
- Building entrances should be oriented toward transit opportunities, with minimum distances along sidewalks from stops/stations, for convenient building access for public transit access:
- Employee office spaces or areas accessible to the public (showrooms etc.) shall be located in the front of buildings with adjacent employee/visitor parking, all other site uses including loading docks and storage areas shall be located on the sides (excluding corner sides) or rear of buildings to limit visibility from streets (see loading and service areas for more information); and,
- Large employment buildings with multiple tenants must provide multiple entries at multiple street frontages to improve site design flexibility and options for building location.

2.8 <u>Vehicular Circulation and Parking</u>

All parking areas shall comply with the standards of the City of Henderson Development Code section on Development and Design Standards with regard to setbacks, spacing requirements, ADA compliance, etc.,

Parking lots should not be the dominant visual elements of a site. Parking areas and structures should be designed to minimize any negative aesthetic impacts on the community and enhance the employee experience to access the building. In addition to the City standards, the following guidelines for parking design apply:

2.8.1 Parking Distribution and Placement

A properly functioning parking lot benefits both employees and visitors. Site access and internal circulation should be designed in a straightforward manner that emphasizes safety and efficiency. Logical parking lot design should allow employees, visitors, pedestrians and deliveries to reach the site, circulate through the parking lot and exit easily from the site.

- Pedestrian walkways shall be separated from parking areas to reduce conflicts between vehicular and pedestrian traffic.
- Sites shall disperse parking areas as opposed to creating singular expanses of pavement.
- For buildings with separate tenant entrances, the required parking should be distributed throughout the site for the convenience of employees and visitors.
- Entrances and exits to and from parking and loading facilities must be clearly marked with appropriate directional signage where multiple access points are provided.
- Entry drives on larger projects should include a minimum five (5)-foot landscaped median to separate incoming and outgoing traffic.
- Coordinate cross access circulation and parking areas with adjoining sites to the greatest extent possible.

2.8.2 Surface Parking

On-site surface parking and circulation systems shall be convenient and readily understandable to users. Parking lots should include landscaping that accents the importance of the driveways from the street, frames the major circulation aisles and highlights pedestrian pathways, the following guidelines shall apply:

- Surface parking lot areas shall be landscaped per Chapter 5 of these guidelines.
- The use of at least two different paving materials (i.e. concrete pavers, stabilized granite and paving materials with textural and color variations) is required to help relieve monotonous expanses of asphalt and to improve the growing environment for plant material.
- Surface parking lots must be adequately screened from adjacent streets to a height of three (3) feet using at least one of the following:
- » The use of rolling earth berms;
- » Changes in elevation;
- » A combination of evergreen and deciduous shrubs spaced no more than three (3) feet

- apart planted in an area at least five (5) feet wide. The height shall be met at installation;
- » Ornamental masonry wall, clad with brick or tile or stone;
- » Ornamental fence:
- A combination of a decorative masonry wall and ornamental metal fencing; or
- Other elements that meet the intent, as approved by the Director of Community Development & Services.
- Parking areas should be minimized adjacent to intersections.
- Parking and utility screen wall design shall follow the common exterior wall treatment for the employment complex or be coordinated with the building design.
- Shaded and covered parking areas are encouraged. Covered parking is permitted as an accessory structure and should consider the following:
- » Covered parking shall match in character, style, and materials, applied to the adjacent buildings to which it serves; and,
- » Lighting must be screened.
- Consider covered parking lots with solar panels.

2.8.3 Parking Structures

Parking structures should be designed in conjunction with the circulation system and should minimize negative impacts on adjoining properties. Parking structure façades shall be compatible with building architecture, and should incorporate decorative screening and/ or trellis elements to bring variation and interest to the façade. Developers should also consider "green roofs" (vegetation), "cool roofs" (coated with solar reflective materials), or solar panels for parking structure roofs. In general, the following guidelines shall be followed:

- Parking structures shall be architecturally consistent with the project and/or surrounding area. Plain, blank wall surfaces are prohibited.
- An above grade parking structure shall work to reduce its apparent mass by articulating corners and breaking long walls by recessing and/or shifting the wall plane horizontally.
- If adjacent to a street, base level entryways/

stairways shall be located along the street edge, and must be easy to distinguish and well lit.

- Vehicular access to structured parking shall be from a major street or the street where primary access to the site occurs.
- The view of a parking structure from a public street shall be minimized by placing its short dimension along the street edge. Parking structures for mixed employment/ commercial projects should locate active uses such as offices or commercial spaces along the ground level of the street frontage.
- Light fixtures within parking structures shall be designed so that the light source is not visible from off-site. Exposed fluorescent tubes are strongly discouraged.
- Lighting of the top deck of parking structures should be architecturally integrated with the building and should not be mounted on tall poles.

2.9 <u>Pedestrian and Bicycle Parking and</u> <u>Facilities</u>

Safe and accessible parking is essential to providing

a multi-modal transportation system. Visitors and employees will be more comfortable walking or using a bicycle for their commute if safe and adequate facilities are provided (see **Chapter 4 for Site Furnishings**). By encouraging more bicycling and walking throughout the WHGBD, it will help to reduce motor vehicle usage and pollution within the community. Both short-term and long-term bicycle storage are encouraged. The following guidelines shall be considered:

- Clearly defined pedestrian access shall be provided from site adjacent transit stops to primary building entrances and/or employee entrances to minimize walking distances from transit facilities.
- Bicycle parking shall be provided for all projects and must be centrally located, highly visible, and well lit. Bicycle parking is encouraged in the front of buildings, where possible. Highquality bicycle racks, lockers, or other protected storage areas are encouraged to avoid bicycle damage and to deter bicycle theft (see Chapter 4 Site Furnishings).
- Projects over 100,000 square feet in building area should provide a minimum of one shower





- stall, twelve (12) long-term bike storage lockers, and six (6) covered, short-term bike parking spaces.
- Disperse bicycle parking facilities throughout larger sites to provide at least one bike rack accommodating a minimum of three (3) bicycles at each primary building entrance.
- Locker rooms with showers are encouraged to satisfy the needs of active employees and reduce the need for midday vehicular trips.

2.10 Loading Areas and Service Yards

Loading areas and service yards could be sources of odor, noise, and smoke, or could be visually objectionable. These areas should be designed to provide easy access to loading and service areas and should not negatively impact adjoining properties. Short-term loading zones for quick pick-up/dropoff shall be provided near to project entrances, to facilitate efficient deliveries and services.

2.10.1 Loading Areas

Adequate loading spaces (including docks) should be designed to not be a nuisance for surrounding properties and should consider the following:

- All loading areas, vehicle access doors, docks and truck circulation aisles must meet the residential adjacency standards included within Section 2.6 of this Chapter.
- Loading areas and vehicle access doors should not be visible from public streets or from neighboring residential uses. At a maximum only 50% of the height of the door

- may be visible from the street.
- Loading areas and service yards must be located at the sides and rear of buildings (excluding corner sides).
- Loading areas should have clear access without interfering with pedestrian and vehicular circulation and shall be located away from public entrances and parking areas.
- Loading driveways shall not back onto streets or encroach into landscaped setback areas.
- Loading activities must not be conducted from public streets.
- Separate truck parking areas shall be provided when three (3) or more trucks are permanently parked on site. These areas should have limited visibility from the street.
- Truck access should use existing or planned median island turn pockets and should be from non-residential streets.
- Landscaping and pavement in loading areas should be maintained on a regular basis because of heavy traffic and heavy equipment use.
- Loading docks that are parallel to the street, should be hidden by a screen wall that is architecturally compatible to the main building and is equal to the height of the truck.

2.10.2 Service Yards and Storage Areas

Service yards and storage areas should be





included in the initial project design. Service yards and storage areas may include equipment and materials storage, garbage dumpsters, trash compactors, recycling, hazardous materials storage, and, if appropriate, utility cabinets, utility meters, emergency generators and transformers. These areas must follow the following criteria:

- All service yards and storage areas must meet the residential adjacency standards included within Section 2.6 of this Chapter.
- Generally, centrally located service yards are encouraged; however, dispersal of service facilities on the site may be necessary if dictated by a particular use.
- Service yards should be easily accessed for service vehicles and tenants. They should be located to minimize conflicts with other site uses and should not create a nuisance for adjacent properties.
- Service yards, storage areas and maintenance equipment must be enclosed and screened from off-site view (see Section 2.13 for Screening methods).
- Service yard walls and similar accessory site elements should be compatible with the architecture of primary buildings and should use a similar palette of materials and finishes.
- Service vehicle traffic should be separated from employee and visitor circulation.
- Service areas, loading and storage areas, and refuse enclosures should be screened and located/oriented away from public view and highly traveled areas (see Section 2.13 for Screening methods).

2.10.3 Garbage, Trash and Recycling

An adequate number of trash and recycling bins should be provided for the project and should also be designed to meet contracted garbage collection company requirements. Bin storage areas shall be located so as not to create a nuisance for adjacent properties, and should consider the following design criteria:

- All garbage, trash and recycling facilities must meet the residential adjacency standards included within Section 2.6 of this Chapter.
- All trash, recycling and garbage bins should

- be stored in separate enclosure or service yards.
- Trash/recycle enclosures shall be located for convenient tenant access.
- Enclosures should not be blocked with parking spaces or interfere with on-site circulation.
- Trash/recycle enclosures should be constructed with decorative masonry walls and the enclosure gate should be of metal with heavy duty hardware. Chain link is not permitted. Finishes and colors for enclosures should be compatible with the main building architecture.
- Sufficient areas for recycling facilities shall be provided within trash enclosures.
- Trash compactors should be considered for large facilities.

2.10.4 Security

Projects may have specific security needs which should be incorporated into the site design of the projects. All projects must comply with the following guidelines:

- Walkways between building entrances and to parking lots shall be located in highly visible areas of the site.
- For safety, pedestrian walkways, parking lots, loading and outdoor storage areas shall be lighted with an average illumination of 0.5 to 1.5-foot candle after dark.
- Security buildings and check point kiosks, if needed, shall be designed with the project and incorporated into the circulation plans. Adequate vehicle stacking and a rejection turnaround shall be provided.

2.11 <u>Utility Equipment</u>

Utility equipment shall not be visible from the street, and must comply with the following guidelines:

- All utility equipment facilities must meet the residential adjacency standards included within Section 2.6 of this Chapter.
- Utility equipment, such as electrical meters and electrical panels should be located in utility rooms or vented cabinets. If this is not possible, utility equipment shall be placed to the rear or side of the building and incorporated into the building and site design. The location and

design of utility facilities should be coordinated with utility providers early in the project design to ensure the most efficient and least disruptive alternative.

- Transformers and other utility equipment should not be placed in the front setback area. If this is not possible, they should be completely screened by walls and/or dense landscaping. They should not obstruct the view of tenant spaces, monument signs, or driveways and be located outside the required sight visibility zone.
- All on-site utilities should be undergrounded.
- Transformers shall be placed away from trash and loading areas.
- Cellular telephone antennae integrated into the equipment screens on industrial buildings are encouraged, rather than free-standing

monopoles.

2.12 <u>Mechanical Equipment</u>

Mechanical equipment should be located and operated in a manner that does not disturb adjacent properties. All equipment should be screened from public view and shall comply with the following:

- All mechanical equipment facilities must meet the residential adjacency standards included within Section 2.6 of this Chapter.
- Mechanical equipment, such as compressors, air conditioners, antennas, pumps, heating and ventilating equipment, emergency generators, chillers, elevator penthouses, water tanks, standpipes, solar collectors, satellite antenna dishes and communications equipment, shall not be visible from public streets or neighboring properties.







- Mechanical equipment should not be located on the roof of a structure unless the equipment can be hidden by elements that are integrated into the building design. If located on the roof, the parapets or screening must be equal to or higher than the installed mechanical equipment. If no end user has been established at the time of construction, the applicant must demonstrate that the roof structure and parapet will accommodate and screen standard equipment sizes commensurate to the building size and use.
- End users may be required to construct additional screening, such as increased parapets or other rooftop screening system, for rooftop equipment installed after initial building construction.
- Mechanical equipment shall not be attached to the exterior walls of structures.
- Ground mounting is appropriate when the equipment cannot be placed on the roof.
 Ground mounted mechanical equipment shall be screened by decorative masonry wall or landscaping. Landscaping shall be installed at a density to screen the mechanical equipment at time of installation.
- Mechanical equipment must be located and operated in a manner that is not a nuisance for adjacent properties.
- Roof top access ladders shall be screened from view by the public.

2.13 <u>Screening Devices</u>

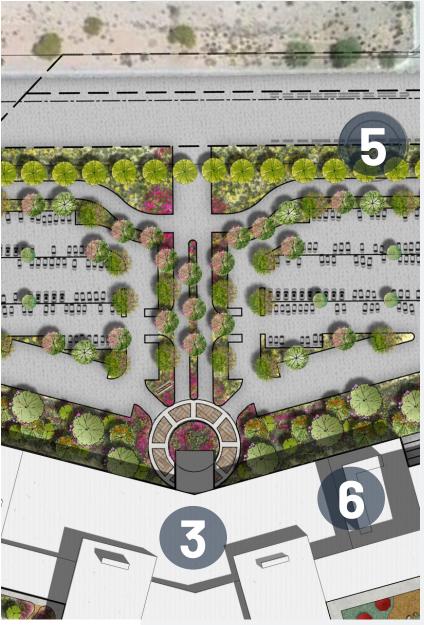
Fences and other screening devices should be used to preclude unsightly and disagreeable views, such as heavy equipment, service yards and storage areas, from the street.

- Screening devices and fences shall be durable, opaque and resistant to weathering and abuse.
- Fences and walls shall be protected from vehicles by curbs.
- Chain link, reflective, razor wire and barbed wire fences are not permitted.
- The style, color and material of screen walls and fences should be compatible with the architectural style of primary structures on the site.
- Screen walls and fences should be combined with landscaping. Landscaping should be

- placed in the setback on the street side of the wall or fence along street frontages.
- Screening devices and landscaping should not impair the visibility of drivers entering or exiting a project site.
- The design and placement of screen walls and fences should incorporate measures to prevent graffiti.



- 1. Cluster building structures to create a campus-like setting
- 2. Orient buildings to maximize shade
- 3. Active building elevations shall face public streets
- 4. Located buildings on corner sites near to intersections to enliven streetscape
- 5. Orient buildings toward public transit opportunities
- 6. Locate employee office space or areas accessible to the public in the front of buildings
- 7. Provide multiple entries when designing large employment buildings with multiple tenants









TECHNOLOGY



- SOLAR COVERED PARKING
- ELECTRICAL VEHICLE CHARGING STATIONS
- LED LIGHTING
- PERVIOUS PARKING SURFACES

DESIGN



- ARCHITECTURALLY INTEGRATED PARKING STRUCTURES
- DISTRIBUTED PARKING AREAS
- GREEN SCREENS
- PLANTERS
- DIVERSE LANDSCAPING MATERIALS AND SPECIES
- SHADED PARKING

VISION



- EFFICIENT
- SAFE
- LOGICAL
- CONVENIENT
- COORDINATED
- SHADED
- COMPATIBLE
- SCREENED



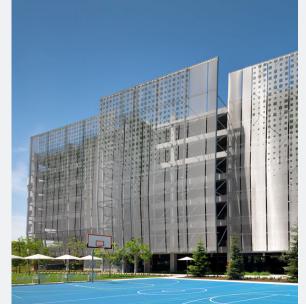






















- 1. Loading areas and vehicle access doors should not be visible from public streets or neighboring residential uses.
- 2. Loading areas and service yards must be located at the sides and rear of buildings.
- 3. Loading driveways should have clear access and shall not back onto public streets.
- 4. Separate truck parking shall be provided when three or more trucks are permanently on the site.
- 5. Service yards, storage areas and maintenance equipment must be enclosed and screened from off site view.





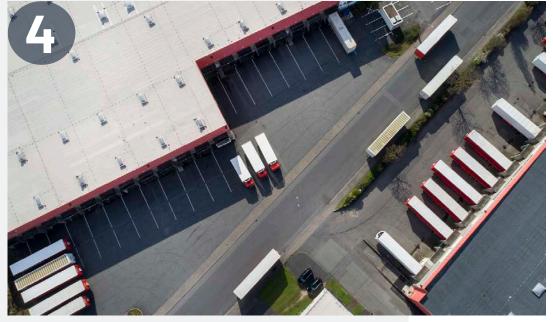








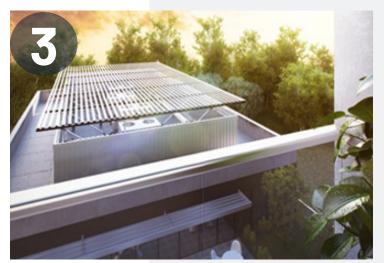








- 1. Screening devices shall be durable, opaque and resistant to weathering and abuse.
- 2. Chain link, reflective, razor wire and barbed wire fences are prohibited.
- 3. The style, color and material of the screen should be compatible with site architecture.
- 4. Screen walls and fences should be combined with landscaping.











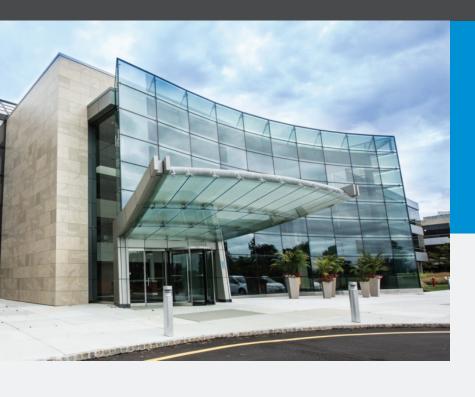








CHAPTER 3: ARCHITECTURE AND BUILDING DESIGN









3. ARCHITECTURE & BUILDING DESIGN

3.1 Intent

The WHGBD has been designed to include a large amount of employment uses. The intent is to bring together diverse businesses, people and their innovative ideas in an environment that creates potential for intellectual and social exchange revolving around industry, including high-tech incubators, manufacturing, research, testing, design applications. architecture within this shall, therefore be flexible to allow for adaptations in use. It is also important to efficiently utilize sites with compact footprints allowing for maximum future development. Along edges where employment uses abut commercial or residential uses, building design shall have flexibility to accommodate an interweaving of program, which shall adequately transition the boundary between uses.

Individual buildings shall make efforts to accommodate impromptu meetings, outdoor study, and other

types of gathering with ample space, seating and shade. The potential of these exterior spaces linking together or occurring unexpectedly is an exciting opportunity to create memorable moments such as obscure courtyards and shaded paseosthatgiveadesirablecharacter to these areas. The diversity of the employment areas negates a single prescriptive approach of defining an architectural style to be universally implemented. Rather, employment development products shall include a variety of architectural design elements as described in this Section.

3.2 <u>Architectural Theme</u> and Character

embracina architectural While diversity, buildings within the WHGBD shall reflect the innovative character of hi-tech, employmentbased industries consistent with the character imagery included within this document Exhibit G: Architectural (see



The intent is to bring together diverse businesses, people and their innovative ideas in an environment that creates potential for intellectual and social exchange revolving around industry, including high-tech incubators manufacturing, research, testing, and design applications.

Character) examples for of employment architecture). The proposed employment uses will dictate modern influences in the form, materials and style of the architecture throughout the development and shall be consistent with the desert environment. This can be achieved by siting building orientation and structural features to create shade or utilizing interior courtyards to reduce temperatures onsite. Despite the considerable size and vast range of uses expected within the WHGBD, the WHGBD shall maintain an expectation of cohesive and complementary architectural character and style that will consider the development as a whole. The intensity of the design of each building shall match the intensity of the proposed use while providing sensible transitions to any adjacent development.

3.3 <u>Massing</u>

The visual impact of a building depends not only on its size, but also its use. Due to the nature of employment uses, the actual structure of the buildings typically utilizes larger footprints. In order to break down the scale and massing of the buildings, vertical and architectural articulation shall occur at regular intervals. Box-like or single, monolithic forms that do not have variations in massing of façades, are not acceptable. The height and bulk of buildings shall be reduced by dividing the mass into smaller scale components.

All structures must implement at least two of the following bulk reduction techniques to add visual interest and help to diminish the perceived height of buildings:

Implementation of material

- changes on all elevations;
- Provision of architectural relief in the form of architectural projections or building recesses; and, or,
- Color changes at appropriate locations.

Buildings over 100,000 square feet shall be required to implement one or more of the following bulk reduction techniques in addition to those stated above:

- Use of horizontal and vertical architectural articulation;
- Use of varied architectural forms and shapes where consistent with the architectural style;
- Additional architectural emphasis to certain parts of the building such as entries, corners, and/or showroom or office spaces.

3.4 Scale

The elements of buildings shall relate logically to each other, as well as to neighboring buildings. A large structure shall contain elements which transition to the human scale, particularly along the ground floor of buildings.

All new structures shall avoid long uninterrupted facades and monotonous large buildings by implementing at least two of the following techniques:

- Strategically placed windows, where appropriate;
- Focal structural openings;
- Recessed portals and entries;
- Varying textures specifically at the ground level;
- Building articulation;
- Ground level arcades and covered areas; and, or,
- A clear distinction between roof, body, and base of a building.

TECHNOLOGY



Architecture and design are applied sciences that utilize research and development in technology to propel their work to new heights, presenting buildings and products that are not only more interesting, but more responsible and useful.

VISION



Buildings within the WHBD shall reflect the innovative character of hi-tech, employment-based industries.

DESIGN



The proposed employment uses will dictate modern influences in the form, materials and style of the architecture throughout the development and shall be consistent with the desert environment.

INNOVATION



Architecture critic Philip Jodidio says that "the most interesting buildings of today are, almost without exception, respectful of the environment, sustainable and designed to consume the least energy possible."

3.5 <u>Building Façade, Articulation and</u> Architectural Features

Building design throughout the WHGBD shall promote visual interest and diversity through the use of architectural articulation. Buildings shall create a rhythm of repeating elements that help establish continuity in the façade. All architectural details, including window shapes, sizes, and quantities shall relate to the architectural style of the building. Metal or wrought iron features shall also be painted or stained to complement the building façade, unless a decorative finish is intended (e.g., patina).

All structures within the WHGBD must include the following architectural elements:

- Roof line parapet or balustrades;
- Decorative drain spouts, if visible;
- · Canopies, awnings, or porticos; and,
- Recesses and/or projections.

In addition, buildings under 90 feet (in any horizontal or vertical direction) shall be designed to incorporate a minimum of three (3) architectural features from the list below on all facades visible from a public street and customer service areas. Buildings over ninety (90) feet (in any horizontal or vertical direction) must include a minimum of four (4) architectural features from the list below on all facades visible from a public street (see **Exhibit J: Building Facade, Articulation, And Features**). The following is a non-comprehensive list of features:

Towers:

- Offsets, reveals or projecting ribs used to express architectural or structural bays;
- Extensive use of glass on primary facades;
- Articulated cornice line;
- Elaborate entryways;
- Outdoor patios;
- Arcades;
- Arches;
- Artwork:
- Eaves:
- Balconies:
- Decorative vent coverings;
- Stone or metal veneers:
- Metal iron work:
- Exposed rafters; and,
- Other complementary architectural features as approved by the Community Development and Services Director or their designee.

3.6 **Building Materials and Colors**

Building materials and colors shall be balanced. They shall enhance the substance and character of the building. Building materials and design elements shall support a unified campus image rather than incompatible styles. Material changes shall occur when there is a change in volume and/ or plane. Materials shall wrap around the building to achieve four-sided architectural design. All structures shall incorporate the following:

- At least two different materials and two different colors shall be provided on all structures;
- Colors should be harmonious. However, color contrast is encouraged to express or enhance architectural detail;





- Exterior building treatments, including colors, materials and architectural detailing, shall be consistent and wrap around all elevations to avoid blank walls. Apply changes in material purposefully and in a manner corresponding to variations in building mass;
- All structures shall be constructed using durable materials which convey a substantial appearance. Materials such as corrugated metal and fiberglass are discouraged;
- Vehicle access doors can be recessed and integrated into building elevations and shall not be visible from public streets. Design measures shall be incorporated to protect doors from damage caused by trucks and other vehicles;
- The use of prefabricated metal buildings and plain aluminum siding is prohibited; however, architecturally creative use of metallic design may be appropriate;
- Select building materials, such as trim and finishes that convey a sense of permanence; and.
- Avoid the use of highly reflective building materials and finishes that direct heat and glare onto nearby buildings.

3.7 <u>Complexity/Unity</u>

Each building or complex of buildings shall be stylistically consistent. Architectural style, materials, colors, form, and scale shall all work together to express a unified theme. The following shall be considered when designing a complex of building units:

- While diversity in architectural styles is encouraged on an area wide basis, each individual building within the same complex shall be stylistically consistent;
- To achieve design harmony and continuity, exterior building design, including roof style, color, materials, architectural form, and detailing, shall be comparable for all buildings in a complex and on all elevations of each building; and,
- Auxiliary structures, such as storage and service buildings, shall be architecturally consistent with the primary structures on a site.

3.8 Windows and Entrances

Windows and entries are essential elements of architectural design, giving scale to structures. Windows shall be recessed from the face of the building to create a feeling of thick walls. They shall have details such as a variety of shapes, insets, shading devices, accent mullions, or other treatments that are proportionate to the scale of the building.

Pedestrian entries shall be recessed or covered in order to provide shelter and shade. Incorporating thoughtful window and entry design is fundamental to promoting a strong architectural presence. The following guidelines shall be incorporated into each structure in the WHGBD:

- Developments shall provide well-defined building entrances to establish a unified project identity, and create a sense of arrival;
- Entry features must incorporate similar colors, materials, and/or textures which complement or provide an accent to those used in structures on the site in order to provide greater identity for the development;
- Buildings shall have clearly defined public and employee entrances that incorporate a combination of elements such as: canopies or porticos, overhangs, recesses/projections, arcades, arches, raised corniced parapets, peaked roof forms, entrances framed by enhanced landscaping, architectural details, and/or enhanced pedestrian surfaces;
- Incorporate windows and doors with welldesigned trims and details as character defining features to reflect an architectural style or theme consistent with other façade elements;
- Windowrecesses to support façade articulation and provide surface relief, depth, and shadow;
- Window grids shall not be a 'plant on';
- Windows shall have a maximum exterior visible reflectivity of 18%; and,
- Plastic awnings of any kind are not allowed.

3.9 Roofs

Roofs shall be an integral part of the building design and form. They shall complement the general design and nature of other roofs along the street. When designing the roofs of buildings within the WHGBD, the following techniques shall be followed:

- Integrate varied roof lines through the use of sloping roofs, modulated building heights, stepbacks, or innovative architectural solutions;
- Roof styles of new buildings shall take into consideration the dominant roof forms on adjacent buildings so that severe clashes in style and materials are avoided;
- "Decorative" roof elements shall not solely be used in the most visible locations. They shall continue to wrap all the way around the building. Roof elements may be combined with wall or other roof elements;
- Roof forms and materials shall be stylistically consistent with the overall design theme of the building;
- Special attention shall be given to the finish of parapets when buildings have flat roofs.
 Depending on the architectural style of the buildings, parapets must have cornices, other horizontal decoration, and/or clean edges;
- Provide roof overhangs or shading along designated pedestrian routes adjacent to building walls with the intent of providing functional shade;
- Overhangs and canopies shall be integrated in the building design along all pedestrian thoroughfares;
- Superficial application of artificial roof elements to disguise a flat roof, such as partial mansard roofs, are not allowed. This does not preclude equipment wells set behind conventional roof forms; and,
- Parapets shall be designed to screen mechanical equipment (see Section 2.12 for more information).

While not required, cool roofing techniques are encouraged within the WHGBD. A "cool" roof may be achieved simply through the use of white paint or through more elaborate systems of contained planted areas on top of man-made structures. Green and cool roof technologies not only provide the owners of buildings with a proven return on investment, but also represent opportunities for significant social, economic, and environmental benefits, particularly in cities. Structures within the WHGBD should consider integrating the following techniques into their buildings:

• Cool roof coatings of white or special reflective

- pigments, membranes, or tiles that reflect sunlight;
- Green roof systems with drainage layers, filter cloth, growing media, and plants; or,
- Other techniques approved by the City of Henderson.

3.10 Free Standing Accessory Structures

- The character, style, textures, and materials shall be applied to the adjacent buildings to which it serves and shall be applied to all sides of these structures when visible to the public.
- Pedestrian access or walkways shall be provided to all freestanding structures.

INNOVATION



- BUILDING ORIENTATION
- DURABILITY/RESILIENCY
- WATER EFFICIENCY
- HEALTH/INDOOR AIR QUALITY

•

TECHNOLOGY



- SOLAR ROOF TILES
- GREEN BUILDING MATERIALS
- CIRCADIAN LIGHTING SYSTEMS
- SMART TECH INTEGRATION
- ADVANCED AIR FILTRATION

VISION



- WELL-DEFINED BUILDING ENTRANCES
- ARTICULATION
- HARMONIOUS COMPLEX DESIGN
- COMPATIBLE BUILDING FORMS

DESIGN



- INCLUSION OF VARIOUS COLORS AND TEXTURES
- ARCHITECTURAL PROJECTIONS AND RECESSES
- MATERIAL CHANGES
- VARIETY OF ROOF FORMS



















- 1. Implementation of material changes on elevations
- 2. Provision of projections and/or building recesses
- 3. Color changes at appropriate locations
- 4. Use of horizontal and vertical articulation
- 5. Use architectural forms and shapes
- 6. Emphasis on building entries, corners, and/ or showrooms or office spaces



















- 1. Strategically placed windows, where appropriate
- 2. Focal structural openings
- 3. Recessed portals and entries
- 4. Varying textures specifically at the ground level
- 5. Building articulation
- 6. Ground level arcades and covered areas
- 7. Clear distinction between roof, body, and base of building











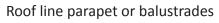














Decorative drain spouts



Canopies, awnings, or porticos



Recesses and/or projections



Towers



Ofsets, reveals or projecting ribs



Articulated cornice line



Elaborate entryways



Outdoor patios



Arcades



Arches



Artwork



Eaves



Balconies



Decorative vent coverings



Stone or metal veneers



Metal iron work



Exposed rafters

- At least two different materials and two different colors shall be provided on all structures
- 2. Colors should be harmonious. However, color contrast is encouraged to express or enhance architectural detail
- 3. Exterior building treatments, including colors, materials and architectural detailing, shall be consistent and wrap around all elevations to avoid blank walls
- 4. Use durable materials which convey a substantial appearance
- 5. Vehicle access doors should not visible from streets
- 6. Prefabricated buildings are prohibited
- 7. Select building materials, such as trim and finishes that convey a sense of permanence
- 8. Avoid highly reflective materials and finishes



Preferred



Prohibited



















- 1. While diversity in architectural styles is encouraged on an area wide basis, each individual building within the same complex shall be stylistically consistent
- 2. Achieve design harmony and continuity, exterior building design, including roof style, color, materials, architectural form, and detailing, shall be comparable for all buildings in a complex and on all elevations of each building
- 3. Auxiliary structures shall be consistent with the primary structures

















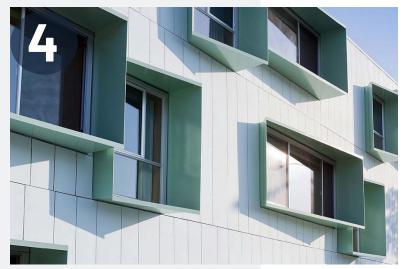
- 1. Developments shall provide well-defined building entrances
- 2. Entry features must incorporate similar colors, materials, and/or textures
- 3. Buildings shall have clearly defined public and employee entrances that incorporate a combination of elements such as canopies, porticos, arches, etc.
- 4. Incorporate windows and doors with well-designed trims and details
- 5. Provide surface relief, depth, and shadow
- 6. Window grids shall not be a 'plant on'
- 7. Maximum exterior visible reflectivity is 18%
- 8. Plastic awnings are not permitted

















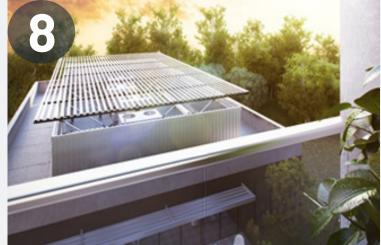






- 1. Integrate varied roof lines
- 2. Consider dominant roof forms on adjacent buildings
- 3. Wrap decorative roof elements
- 4. Consistent with overall design theme
- 5. Parapets must have cornices other horizontal decoration, and/or clean edges
- 6. Provide roof overhangs and shading
- 7. Integrate overhangs and canopies into building design
- 8. Screen mechanical equipment











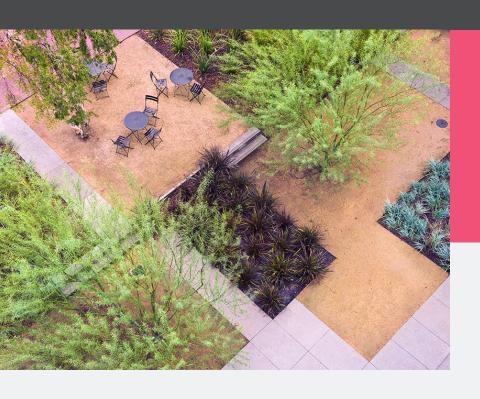








CHAPTER 4: OPEN SPACE





4. OPEN SPACE





4.1 Intent

The WHGBD strives to be a world class employment driven development. As such, open space and employee amenities are a key component within the WHGBD that ties all development components together. Developments within the WHGBD shall strive to create an environment where employees and visitors can use these employment campuses to recreate and enjoy indoor and outdoor spaces. Successful and enduring open spaces are those that remain relevant to people's day-today lives. Such success is not only a function of the available recreational facilities but more importantly for people, the impact that those places have on their everyday lives (see Exhibit 0: Open Space Character).

4.2 <u>Employee and Visitor</u> Amenities and Open Spaces

Creative amenities will distinguish the WHGBD as a desirable job center. Employees have a choice of where they live and work and in order to continue to recruit high quality job opportunities and diverse industries in Henderson, amenities in employment areas need to keep pace with the demands of an evolving and educated workforce. Employees are looking for convenience and proximity to residential areas, recreational opportunities, quality design, walkability, and high quality public transit, employee break rooms and cafés, access to nearby retail and neighborhood resources (coffee shops, clubs, bars, parks), and flexible amenities such as an employee gym, children's play areas, or on-site daycare. Building amenities may include meeting room space for activities such as: fitness classes, on-site health screening, training, or office games. Indoor amenities are encouraged and may be substituted for outdoor amenities.

To that end, all developments within the WHGBD shall include active and/ or passive outdoor amenities for employees and visitors (some areas



Successful and enduring open spaces are those that remain relevant to people's day-to-day lives. Such success is not only a function of the available recreational facilities but more importantly for people, the impact that those places have on their everyday lives.

may be provided indoors as provided below within Section 4.2.1), including plazas, patios, courtyards, linear promenades, terraces, landscaped areas, walking paths, seating areas, and shaded picnic areas, all scaled according to the size and demands of the particular user or facility (See Section 4.3.3 for specific furnishings).

4.2.1 Open Spaces and Amenity Requirements

Open space and amenity areas within the WHGBD include all areas that are accessible and/or visible to employees or visitors and that add to the quality of life, character and recreation element of a development. Open spaces and amenity areas may be developed or undeveloped areas and may include a variety of passive and active recreational uses. An active recreational use may include but is not limited to the following: walking/hiking trails, sport courts or fields, children's play areas, fitness stations, lawn game areas, dedicated yoga/meditation lawns, gyms, fitness areas, indoor tracks, office game areas, indoor tracks, etc.

The WHGBD open space and amenity program requires:

- 10% of each development, as a whole, to be dedicated as outdoor open space (including passive, active, natural and/or aesthetic areas – this includes landscaped areas and required perimeter landscape buffers); and,
- 20% of that open space (20% of the 10% required above) must be dedicated to active recreational uses (a majority

ofthe active recreational uses must be located outdoors, but up to 49% of the active recreational requirement may be located indoors in the form of employee gyms or fitness areas, children's play areas, office game areas, or indoor tracks).

For Example:

- A 10-acre site would be required to provide one (1) acre of total open space (or 10%).
- Of that one (1) acre of open space, 0.2 acres (or 20% of the required one acre) would need to be dedicated to an active recreational use.
- And of that 0.2 acres of required active open space, 0.102-acres must be located outdoors (51% of the required active open space), but up to 0.098-acres may be located within the building (49% of the required active open space).

4.3 Site Amenities

Employees have a choice of where they live and work. In order to continue to recruit high-quality job opportunities in the WHGBD, amenities in employment areas need to keep pace with an evolving and educated workforce (see **Exhibit P: Site Amenities**). New development within the WHGBD shall incorporate all of the following amenities as a part of their required open space and amenity areas:

- Shaded open space, such as plazas, lunch areas, courtyards, pocket parks, and/or terraces;
- Open areas that are easily accessible;
- Enhanced landscaping to create a vibrant outdoor experience;

TECHNOLOGY



Sustainable technologies in open spaces are growing in popularity. More and more, businesses are realizing the benefits of using resources efficiently and cost effectively, while also improving quality of life for their employees.

VISION



Employees have a choice of where they live and work and in order to continue to recruit high quality job opportunities and diverse industries in Henderson, amenities in employment areas need to keep pace with the demands of an evolving and educated workforce.

DESIGN



Open spaces shall add to the quality of life, character and recreation element of a development.

INNOVATION



Open spaces have been shown to improve public health outcomes, protect water quality, and decrease violence. These areas can also alleviate some of the emotional symptoms of urban life, including stress and anxiety.

- A diversity of seating options and gathering spaces for groups or single users;
- Hard and soft walking surfaces (see Open Space Section for more specific requirements);
- Sidewalks and pathways that provide connections between amenities, buildings, and public facilities exterior to the site (transit facilities, public open space, etc.); and,
- Access to natural areas, when present.

4.3.1 Plazas

All sites over 10-acres shall be required to incorporate a plaza into their overall open space design. Plazas are open spaces that offer abundant opportunities for gathering. These are formal open spaces; they balance hardscape and planting elements. Trees and shade structures are important in these areas. Plazas can be spatially defined by building frontages (see **Exhibit Q: Plazas**). The following shall be considered for plaza open spaces:

- Provide active areas that accommodate active uses as well as areas that provide a more relaxed and secure experience;
- Plazas and courtyards shall be functional in terms of location and amenities to promote safe human interaction, by including a variety of seating areas, lighting, and direct access from buildings;
- Provide filtered shade by means of deciduous trees, lattice, or pergola coverings which reduce temperatures in summer, yet allow sun in the winter;

- Provide continuous shade by means of arcades, canopies, and awnings adjacent to buildings;
- Minimize the amount of hard plaza pavement which retains heat. Provide only the amount necessary for projected pedestrian circulation and volume;
- Use structural art and/or sculpture gardens as focal points;
- At least 50% of the provided seating shall be secondary, in the form of steps, planter seat walls, retaining walls, or mounds of artificial turf;
- Seating wall heights shall be approximately 16"-18"; and,
- Water features and turf grass are prohibited.

4.3.2 Pathways and Trails

The pedestrian circulation program within WHGBD shall include a variety of pedestrian walkways, including: paseos, sidewalks, and/or natural trails. These pedestrian facilities must maximize connections to the surrounding trails network (see the City of Henderson's Master Bicycle and Trail Plan for nearby amenities). Vary pedestrian experiences by providing a hierarchy of trails types, linkages and loops. This provides for a completely connected experience for employees and visitors. When developments are adjacent to parks and trails, pedestrian and bicycle connections shall be incorporated into the site circulation (see Exhibit R: Pathways and Trails). The following guidelines shall be followed when developing the site's pedestrian programming:







- Onsite sidewalks shall be at least five (5) feet in width;
- Lighting shall be provided by bollard or overhead lighting;
- Soft paths and trails shall be at least four
 (4) feet in width and shall use a stabilized decomposed granite as the trail base;
- Pedestrian traffic areas may be paved with decorative paving, such as, but not limited to tile, exposed aggregate concrete, brick or cobblestone, but must create a level, safe, non-skid walking surface; and,
- Pedestrian safety measures shall be incorporated, where appropriate, such as changes in paving, callboxes, lighting, signage, and shall achieve Crime Prevention through Environmental Design (CPTED) standards.

4.3.3 Site Furnishings

Site furnishings have the potential to impact and enhance user experience and comfort. All development within the WHGBD is required to provide furnishings complementary to site design in convenient and appropriate locations. Seating, trash receptacles, transit shelters, and other furnishings are all significant elements that contribute to the character and amenity of developments.

Developers within the WHGBD are encouraged to expand upon these standards to create a palette unique to their site. There may be opportunities for site furnishings to be considered as public art installations. Benches and trash and recycling receptacles will be incorporated along all sidewalks/pedestrian walkways for greater pedestrian comfort and convenience (see **Exhibit S: Site Furnishings**). The following guidelines shall be followed:

- Adequate quantities of street furniture shall be evaluated and used in all public areas, including the following:
- » Ash Urns: A minimum of one (1) provided at major building entry points and designated smoking areas.
- » Benches: Benches shall be placed individually or in groupings adjacent to building entries, paired with shade canopies, located in employee lunch/break areas, near transit stops, and other open space areas that cater to pedestrians. Seating materials should be used that minimize heat retention for summer use.
- Alternative Seating Areas: At least 50% of the provided seating shall be secondary, in the form of steps, planter seat wafts, retaining walls, or mounds of artificial turf.

- » Bicycle Racks/Parking: See Section 2.9.
- » Bollards or overhead lighting: Shall be posted and installed as needed in parking and plaza areas, along walkways, and at building entrances where necessary.
- » Trash/Recycle Receptacles: Decorative trash receptacles shall be installed one (1) per two (2) benches or group of benches, and at the entry of each building.

All site furnishings shall be reviewed and approved by the City and included in the Design Review, including but not limited to seating, trash and recycling receptacles, drinking fountains, bike racks, tree grates, bollards, planters and pots, and drain covers.





INNOVATION



- OPEN SPACE THAT INDIRECTLY CREATES OR SUSTAINS GOOD, LIVING WAGE JOBS
- OPTIMIZES OPERATIONS AND MAINTENANCE COSTS

TECHNOLOGY



- WIFI ENABLED OPEN SPACES
- SOLAR CHARGING STATIONS
- APP CONNECTED ACTIVE EXERCISE STATIONS
- SERVES AS A NET CARBON SINK

VISION



- CREATIVE AND CONSTRUCTIVE SOCIAL INTERACTION
- OPPORTUNITIES FOR INDIVIDUAL, GROUP, PASSIVE, AND ACTIVE RECREATION
- ENCOURAGES HEALTH AND FITNESS

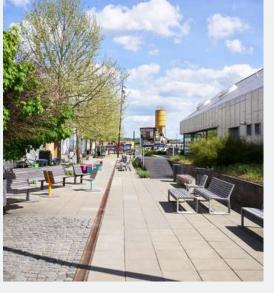
DESIGN



- USES ENERGY, WATER, AND MATERIAL RESOURCES EFFICIENTLY
- ENHANCES, PRESERVES, PROMOTES, OR CONTRIBUTES TO BIOLOGICAL DIVERSITY





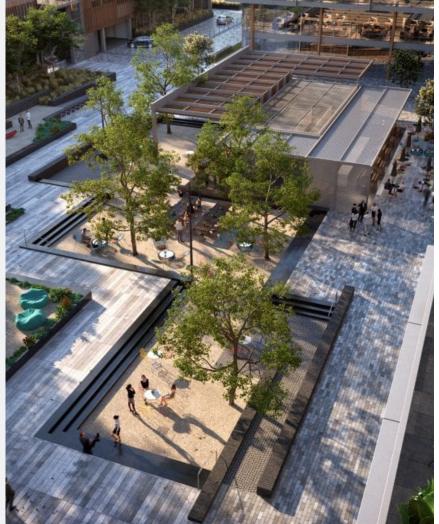












- Shaded open spaces, such as plazas, lunch areas, courtyards, pocket parks, and/or terraces
- 2. Easily accessible areas
- 3. Vibrant outdoor experience
- 4. Diverse seating options
- 5. Hard and soft walking surfaces
- 6. Sidewalks and pathways to amenities
- 7. Access to natural areas



















- Provide active and passive areas
- 2. Functional plazas and courtyards
- 3. Provide filtered shade
- 4. Provide continuous shade by means of arcades, canopies, and awnings adjacent to buildings
- 5. Minimize amount of hard pavement
- 6. Use structural art
- 7. Provide 50% secondary seating options
- 8. 16"-18" seating wall heights
- 9. Water features and turf are prohibited



















- 1. Sidewalks shall be at least five (5) feet in width
- 2. Lighting shall be provided by bollard or overhead lighting
- Soft paths and trails shall be at least four (4) feet in width and shall use a stabilized decomposed granite as the trail base
- 4. Pedestrian traffic areas may be paved with decorative paving
- 5. Incorporate pedestrian safety measures























- 1. Ash Urns a minimum of one (1) provided at major building entry points and designated smoking areas
- 2. Benches shall be placed individually or in groupings adjacent to building entries, paired with shade canopies, located in employee lunch/break areas, near transit stops, and other open space areas that cater to pedestrians
- 3. Alternative seating areas at least 50% of the provided seating shall be secondary, in the form of steps, planter seat wafts, retaining walls, or mounds of artificial turf
- 4. Bicycle racks/parking
- 5. Bollards or overhead lighting
- 6. Decorative trash receptacles shall be installed one (1) per two (2) benches or group of benches, and at the entry of each building
- F

Preferred



Prohibited



















CHAPTER 5: LANDSCAPE





5. LANDSCAPE





5.1 Intent

Landscape plans within the WHGBD must use a design approach that places plants and features in a way that enhances aesthetics, pedestrian-friendliness, depth, and shields operational elements of the buildings while acknowledging the sensitivities of developing in a desert environment. Planted areas soften structures, define site functions, enhance environmental quality, and screen undesirable views. Landscaping provides a pleasant, comfortable setting. It also helps define the site plan and tempers the effects of climate.

5.2 Landscape Concept

The WHGBD will be designed with a consistent landscape theme. The use of drought tolerant landscape materials is required as water conservation is a primary goal of the City of Henderson. With that in mind, the landscape materials used throughout the WHGBD will be of a high-quality, and will use accents, color, and appropriate scale to complement adjacent architecture

and land uses. Plantings shall be used to shade and screen, to accent focal points and entries, to contrast with or reinforce building design, to break up paving or wall expanses, and to define on-site circulation. The implementation of this theme, as established by these guidelines, will be a consistent and unifying element of the WHGBD and will provide a logical, safe, and visually pleasing environment for employees and visitors. Landscape shall be provided as required in the City of Henderson Development Code. The following additional guidelines shall be considered during the design of landscape plans (see Exhibit T: Landscape Character):

5.2.1 General Landscape Standards

Landscaping shall be integrated with buildings and surroundings to make a positive contribution to the aesthetics and function of both the specific site and the area. Any part of the site that has been disturbed and is not developed with buildings, structures, loading



Landscaping shall be integrated with buildings and surroundings to make a positive contribution to the aesthetics and function of both the specific site and the area. and vehicular access ways, streets, parking and utility areas, pedestrian walks, and hard-surfaced activity areas shall be landscaped.

Where buildings and/or parking areas are set back from the street, all front and street side yards shall be entirely landscaped, except pathways, driveways, and pedestrian amenities (see **Exhibit U: Landscape Requirements**). In addition to the minimum landscaping required by the City of Henderson, the following shall be implemented:

- All landscape plans shall be stamped by a State of Nevada registered Landscape Architect;
- Low maintenance and drought tolerant plants listed on the Southern Nevada Water Authority (SNWA) Water Smart Landscapes Program Plant List are required;
- Landscaping shall create depth and height variation through a stepped approach from street view to building, including perimeter landscaping, landscaping and trees in pathways and parking areas and along the base of buildings, in a cohesive manner that varies height and depth for overall design and aesthetic quality;
- With the exception of pathways, light standards, walls, fences, trees, and furnishings, all landscape areas shall be planted with vegetative ground cover or contain other ground cover materials or decorative treatments such as gravel,

- decorative rock, and similar materials to add accent and texture:
- Existing mature trees, rock outcroppings and riparian corridors shall be preserved and incorporated into the landscape design of new development;
- Trellises, arbors, and cascading terrace landscaping should be considered where appropriate;
- Buildings shall be shaded on the south and west sides during the summer months.
 Deciduous trees are encouraged as an excellent source of shading for these situations:
- Areas proposed for future development on a site shall be temporarily planted and irrigated for dust and erosion control, particularly if the next construction phase will not begin for at least twelve months; and,
- Landscaping shall allow unobstructed views for pedestrians coming and going from all buildings.

5.3 Plant Palette

The plant materials palette for the WHGBD has been carefully developed based on an employment campus feel and character. Native, low maintenance plants that are drought tolerant are required. In order to maintain the consistent appearance described, a uniform plant materials palette has been developed consisting of following vegetative zones, Desert Revegetation, Desert Adaptive, Enhanced Desert and Regionally Ornamental. The palettes are designed to be complementary from the more native, less intense

VISION



Landscape plans within the WHGBD must use a design approach that places plants and features in a way that enhances aesthetics, pedestrian-friendliness, depth, and shields operational elements of the buildings while acknowledging the sensitivities of developing in a desert environment.

DESIGN



The WHGBD will be designed with a consistent landscape theme. The use of drought tolerant landscape materials is required as water conservation is a primary goal of the City of Henderson. With that in mind, the landscape materials used throughout the WHGBD will be of a high-quality, and will use accents, color, and appropriate scale to complement adjacent architecture and land uses.

INNOVATION



Landscape architecture straddles the interface between the cultural and natural worlds, addressing design issues inherent in a range of typologies and scales. Landscape architects thoughtfully examine the increasingly complex issues associated with these environments and to develop innovative design solutions.

to the more decorative and colorful. Palettes are listed below in order of intensity. Below is a general description of the application of each plant material palette (see **Exhibit V: Landscape Palette** and **Exhibit W: Landscape Zones**)

5.3.1 Desert Revegetation

This palette is comprised of Mohave Desert materials and is intended to assist in transitioning to native revegetated or existing native landscape areas. The installation of the materials will be nonirrigated and maintained through establishment and sustainability of the plant materials by a qualified contractor. The materials must be established and weaned off supplemental watering within two years to ensure survivability. The use of this palette can be integrated into a park setting where a native appearance is desired or blended on a streetscape to merge a native desert look with a transitional desert blend. Desert Revegetation shall not be used as a sole solution in highly visible public spaces such as streetscapes, parks, open space and common areas unless it is blended with other, more intense palettes. Desert Revegetation can be used exclusively to transition to an existing native area or to recreate native area(s). A desert revegetation plan is required where native plan materials are disturbed. Revegetation plans shall include maintenance and restoration components. The following areas are appropriate for Desert Revegetation:

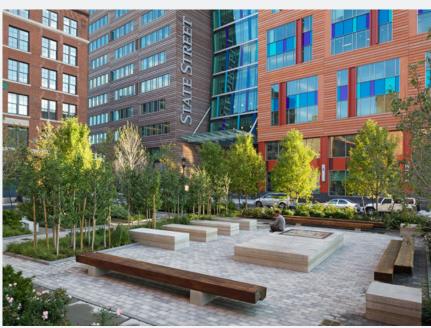
- Disturbed native areas;
- Transition from native landscape areas to a Desert Adaptive palette; and
- Within streetscapes or open space areas when combined with Desert Adaptive and Enhanced Desert palettes.

5.3.2 Desert Adaptive

This palette is intended for a transition from Desert Revegetation or as a common palette for creating a native appearance with added seasonal color and layering. The palette is required to be irrigated and can be blended with Desert Revegetation to create a more scalable appearance in the landscape. The use of the palette can be integrated into a park setting where an irrigated, more colorful native appearance is desired, or blended on a streetscape to merge a native desert look with an Enhanced Desert blend. Desert Adaptive shall not be used as a sole solution in highly visible public spaces such as streetscapes, open space and common areas unless it is blended with other, more intense palettes. Desert Adaptive can be used exclusively to transition from Desert Revegetation to an Enhanced Desert palette. The following areas are appropriate for Desert Adaptive:

- Disturbed native areas to complement an existing similar palette;
- Transition from Desert Revegetation areas





- to an Enhanced Desert palette; and
- Within streetscapes or open space areas when combined with Enhanced Desert palettes.

5.3.3 Enhanced Desert

This palette is intended for a transition from Desert Adaptive or as a common palette for creating an ornamental desert appearance with a full range of seasonal color and layering. The palette is required to be irrigated and can be blended with Desert Revegetation and Desert Adaptive to create an overall more scalable appearance in the landscape. The use of this palette is a staple in streetscapes or any open space area. Enhanced Desert can be used exclusively or to transition from the Desert Adaptive palette. Enhanced Desert shall not be used solely to recreate a native plant area or to blend from Desert Revegetation without the addition of the Desert Adaptive palette. The following areas are appropriate for **Enhanced Desert:**

- Transition from Desert Adaptive areas to a Regionally Ornamental palette;
- Commercial and Employment open spaces and pedestrian areas; and,
- Exclusively within streetscapes or open space amenity areas.

5.3.4 Regionally Ornamental

This palette is intended for a transition from Enhanced Desert or as a common palette for creating a highly ornamental desert garden appearance with a full range of seasonal color and layering. The palette is required to be irrigated and can be blended with the Enhanced Desert palette only to create a layered or patterned landscape. The use of this palette is a staple in gardens, plazas, park/amenity settings, streetscapes or open space areas where a structured appearance is desired. The Regionally Ornamental palette can be used exclusively or to transition from the Enhanced Desert palette. The Regionally Ornamental palette shall not be used to recreate Revegetation areas and shall not be used within the Desert Revegetation or Desert Adaptive plant palettes. The following areas are appropriate for the Regionally Ornamental palette:

- Within streetscapes when blended with the Enhanced Desert palette;
- Commercial and Employment open space amenity areas and pedestrian focal points and entryways; and,
- Exclusively within parks or open space areas where a patterned or structured landscape is desired.

5.3.5 Trees

All trees are to be Southern Nevada Water Authority (SNWA) Water Smart Landscapes Program Plant List.

5.3.6 Shrubs and Ground Covers

- Turf grass is prohibited;
- Use of drought tolerant shrubs and ground covers is required;
- Shrubs and ground cover shall be situated to screen any visible portion of utility structures, irrigation controls, equipment, and downspouts. Unless otherwise stated in a soils report, the foundation must also be screened; and,
- Artificial turf may be utilized if turf selection is of a high-grade that can withstand foot, pet, and weather conditions.

5.3.7 Boulders

Setting of rocks and boulders must appear natural, including burying at least thirty-three percent (33%) of the rock or boulder mass below grade. Clusters of varying sizes in naturalistic outcroppings are required throughout landscaped areas where they are proposed.

5.3.8 Rock Materials

All shrub and ground cover areas shall be covered with a minimum of two inches (2") deep top dressing of gravel, decorative rock, or similar. Granite colors shall be complementary between developments.

5.3.9 Landscape Grading

Drainage patterns established by engineering requirements shall be maintained but shaped into natural forms when possible. The maximum allowable slope is 3:1.

5.3.10 Pots and Planting Containers

Pots and planters provide a good location for color and accents as well as structure in the landscape. All pots and plant containers shall be selected in colors and materials that complement the architecture and hardscape forms and must be of a durable material such as concrete or steel. Irrigation must be provided to pot locations with the use of drip irrigation.

5.3.11 Landscape Installation and Maintenance

All landscaping shall be installed according to sound nursery practices in a manner designed to encourage vigorous growth. All visible landscape material and irrigation improvements shall be in place prior to issuance of the final certificate of occupancy.

Root guards will be required for trees that are located within ten feet (10') of the right-of-way and within five feet (5') of sidewalks or walls.

Regular maintenance of all landscaping and irrigation improvements is required. Regular maintenance includes: replacing dead or dying materials, replacing any removed trees, weeding, watering, fertilizing, pruning, mowing, edging, mulching, and keeping the landscape areas free from disease, pests, and weeds.

5.3.12 Prohibited Materials List

The following plants are prohibited within the WHGBD:

- Baccharis sarothroides Desert Broom;
- Olea europa Olive (fruit producing);
- Pennisetum sataceum Fountain Grass (green variety);
- Morus alba Fruiting Mulberry;
- Tamrix spp. Tamarisk; and,
- Oleander spp. Oleander.
- All species of turf grass.
- Decomposed granite as a rock mulch (onsite walkways using decomposed granite are acceptable).
- Bark.
- Chat.
- Materials that are inconsistent with the

desert environment and color palette, such as River Rock, white rock, etc.

Ornamental water features.

5.4 Internal Streetscapes

Internal streetscapes shall be landscaped to screen parking, buffer adjacent uses and provide an attractive view from the street. External streets are subject to Title 19. Internal street frontage landscape shall conform to the following standards:

- Street trees and shrubs are required along all street frontages, public and private;
- If directly adjacent sites have been developed, new street trees shall match existing street tree species and spacing.
- New trees shall be a minimum 2-inch caliper at the time of installation;
- A minimum of one (1) tree shall be provided for every thirty (30) feet of lineal street frontage;
- A minimum of five (5), five-gallon shrubs shall be provided for every thirty (30) feet of street frontage;
- Combine a mix of trees, shrubs, and ground cover in the area between buildings and the sidewalk; and,
- Provide a minimum 15-foot wide landscape area along all street frontages with parking lots. Planting shall include a variety of trees, shrubs, and ground covers. A greater front landscape strip may be recommended for an individual development based on the specific development type.

5.5 Entryways

Enhanced and upgraded entry landscaping shall be implemented at all major entryways to create a strong sense of arrival and to promote a campuslike feel and identity. This landscaping will help to establish the feel and character of the streetscape. These areas must provide above-code level landscape elements, including increased tree size and number of shrubs, entry features, vertical landscape forms, and/or seasonal color at both vehicular and pedestrian project entrances appropriate to the scale of the project.

Shade shall be a priority for these pedestrian environments. This can be achieved through the design of buildings and landscape materials. The selection of material must take canopy height into consideration to allow for a clear and safe pedestrian

environment. Required entryway features shall include at least four (4) of the following elements:

- Entry wall monuments;
- Raised planters;
- Rock outcrops;
- Specimen trees (4-inch caliper minimum or larger);
- Upsized shrub plantings (15-gallon minimum).

5.6 <u>Internal Site Landscaping and</u> Parking Areas

The planting design of the parking lots shall blend seamlessly with the landscape of the surrounding streetscapes and open spaces utilizing a combination of landscape character elements and materials. Shade for parking spaces and pedestrian ways shall be a priority in the selection and siting of landscape materials. Due to the amount of pedestrian traffic within parking lots, the plant material internal to the parking lot shall be softer and of a more inviting character with a selection of materials that do not have spines or thorns. Landscaping shall frame buildings and separate them from surrounding paved areas. Parking areas shall be landscaped to minimize summer glare and heat and to reduce the negative impacts associated with large asphalt areas (see Exhibit X: Internal Site Landscaping). The following guidelines are required:

- Landscape areas adjacent to buildings shall have a width of no less than five feet (interior dimension). Exceptions may apply to manufacturing buildings or service and loading areas;
- A minimum 8-foot (interior dimension)

- landscape area shall be used along circulation and parking aisles as well as along building side and rear elevations if a walkway is not provided. A landscape area is not necessary for service areas between pavement and buildings;
- Buildings shall be separated from parking bays by landscaping and walkways;
- Parking lot trees shall have large canopies and shall have a minimum 2-inch caliper when planted;
- A minimum of one 2-inch caliper tree shall be planted at four parking space intervals (at eight parking space intervals when there is a double row of parking) in a parking lot aisle;
- Landscape diamonds shall have a minimum interior dimension of 6 feet and shall include structural soils and/or permeable surfaces;
- Vehicle overhang into landscaping is encouraged. However, the plant material must be compatible to permit the overhang;
- Landscape areas shall be protected from pedestrian and motor traffic by raised curbs, tree guards or other devices;
- Within the landscape areas of the off-street surface parking areas, vegetation and hardscape materials are allowed which may include, but not be limited to, paving, pavers, flatwork, pots, shade structures, ramadas, trellises, pergolas, arbors, steps, ramps, railings, fences, walls, art, lighting, drainage ways, boulders, parking screen walls, transformers, Service Entrance Section (SES) equipment, back flow preventers, and telecommunications boxes:
- Landscaping which is required in the parking



- lot shall be relocated elsewhere on the site, in the event parking shade structures are provided; and,
- Alternative materials such as permeable pavers, porous concrete, or similar materials are strongly encouraged for onsite hardscaping to reduce urban heat island effect, and to allow natural drainage and filtration.

INNOVATION



- USES ENERGY, WATER, AND MATERIAL RESOURCES **EFFICIENTLY**
- IS DESIGNED WITH HARDSCAPE MATERIALS SELECTED BASED ON LONGEVITY OF SERVICE, SOCIAL/CULTURAL/ HISTORICAL SUSTAINABILITY, REGIONAL AVAILABILITY, OR LOW CARBON FOOTPRINT





- HIGH EFFICIENCY IRRIGATION SYSTEM
- WEB CONNECTED IRRIGATION CONTROLLERS WITH
- WEATHER STATION INTEGRATION

DESIGN



• LANDSCAPING SHALL CREATE DEPTH AND HEIGHT VARIA-TION THROUGH A STEPPED APPROACH FROM STREET VIEW TO BUILDING, INCLUD-ING PERIMETER LANDSCAP-ING, LANDSCAPING AND TREES IN PATHWAYS AND PARKING AREAS AND ALONG THE BASE OF BUILDINGS, IN A COHESIVE MANNER THAT VARIES HEIGHT AND DEPTH FOR OVERALL DESIGN AND **AESTHETIC QUALITY**



















- Landscaping shall create depth and height variation
- 2. All landscape areas shall be planted with vegetative ground cover or contain other ground cover materials or decorative treatments
- 3. Existing mature trees, rock outcroppings and riparian corridors shall be preserved
- 4. Trellises, arbors, and cascading terrace landscaping should be considered
- 5. Buildings shall be shaded on the south and west sides during the summer months
- 6. Areas proposed for future development on a site shall be temporarily planted and irrigated for dust and erosion control
- 7. Landscaping shall allow unobstructed views for pedestrians
 - Preferred
 - Prohibited



















					BLOOMING PERIOD										USE			AREA					
					JANURAY	EBRUARY 6	יאור	٨,	UNE	пгу	UGUST	EPTEMBER	cTOBER	OVEMBER	SERT	DESERT ADAPTIVE		IHANGED DESERT	GIONALLY ORNATMENTAL	DADWAY / STREETSCAPES	ENTRIES	OPEN SPACE	
BOTANICAL NAME TREES	COMMON NAME	WATER USAGE	WILDLIFE ATTRACTANT	BLOOM COLOR	3		¥	È	3	3	¥	S	ŏ	ž	Ž	<u>ä</u>		ú	2	<u> </u>	Ē	6	
Acacia aneura	Mulga Acacia																						
Acacia constricta	White Thorn Acacia Cat-Claw Acacia	low	habitat	yellow/white				•	•	•	•				•	•		•		•	•	•	
Acacia greggii Acacia smallii	Sweet Acacia	low	habitat bee, habitat	yellow/white yellow/orange	•	• •	•	•	•	•	•	•		• •		•		•	•	•	•	0	
Acacia stenophylla	Shoestring Acacia	low	,	yellow to cream			•	•	•	•						•		•	•	•	•	•	
Brahea armata	Mexican Blue Palm Saguaro	low	bee,bat,dove	Croomy white											•					•	•	•	
Carnegiea gigantea Celtis occientalis	Common Hackberry	IOW	bee,bat,dove	Creamy-white				•	•														
Chamaerops humilis	Mediterranean Fan Palm																						
Chilopsis linearis	Desert Willow II verstig Hemilton	low	hummingbird, wildlife food, habitat	white to purple				•							•	•	9	•	•	•	•	•	
Chilopsis linearis 'Lucretia Hamilton' Citrus sp.*(Rear yards only)	Desert Willow 'Lucretia Hamilton' Citrus Tree	low high	hummingbird, wildlife food, habitat wildlife food	burgundy Creamy-white				_	•	•	•				•	•	-	•	•	•	•	•	
Cordia boissieri	Texas Olive	ing.		Orodiny-Willio																		+	
Ebenopsis ebano(=Pithecellobium)	Texas Ebony																						
Elaeocarpus decipiens	Japanese Blueberry	high	bird	white																			
Feijoa sellowiana Fraxinus greggii	Pineapple Guava Littleleaf Ash	high	bird	white					•										•			+	
Fraxinus velutina 'Fan-Tex'	Fan-Tex Ash	moderate		insignificant		•													•			<u>t</u>	
Fraxinus velutina	Arizona Ash			_																			
Fraxinus oxycarpa 'Raywood' Laurus nobilis*	Raywood Ash	moderate		grappish/vallouv															•				
Leucaena retusa	Bay Laurel Golden Ball Lead Tree	moderate low		greenish/yellow bright yellow			•	•		•	•	•	•			•	-	•	•		•	•	
Ligustrum lucidum	Glossy Privet						Ť																
Ligustrum japonicum	Waxleaf/Japanese Privet		-																				
Lysiloma thornberii Olea europaea 'Swan Hill'	Feather Tree Swan Hill Olive	moderate moderate	butterfly habitat	white insignificant			•	•											•			-	
Parkinsonia microphylla	Foothill Palo Verde	low	habitat	pale yellow) •	•							•	•		•	•	•	•	•	
Parkinsonia x 'Desert Museum"	Desert Museum Palo Verde	low	habitat	yellow					•							•		•	•	•	•	•	
Parkinsonia florida	Blue Palo Verde	low	habitat	yellow			•	•	•							•	- (•	•		•	•	
P.a. 'Cooperi' P.c. 'Thornless' or 'Arizona'	Thornless Argentine Mesquite Thornless Chilean Mesquite																					-	
P.c. 'Bradford'	Bradford Pear																					+	
Phoenix dactylifera	Date Palm																						
Pistachia chinensis Pistacia lentiscus	Chinese Pistache Mastic Tree	low		insignificant																			
Pistachia x 'Red Push'	Red Push Pistache	IOW		insignilicant																		+	
Pithecellobium flexicaule	Texas Ebony	low	butterfly	creamy white/yeallow			•	•											•				
Prosopis alba	Argentine Mesquite																						
Prosopis chilensis Prosopis SA hybrid 'Thornless'	Chilean Mesquite Thornless Mesquite	low	habitat	Cream														•	_		•	•	
Prosopis glandulosa 'Glandulosa' Thornless	Texas Honey Mesquite	low	bee, habitat	greenish/yellow				•							•	•		•	•	•	•	•	
Prosopis pubescens	Screwbean Mesquite	low	habitat	yellow			Ŭ	•	•						•	•		•	•	•	•	•	
Prosopis velutina	Velvet Mesquite	low	habitat	white/pale yellow				•							•	•		•	•	•	•	•	
Prosopis x 'Phoenix' Punica granatum	Thornless Hybrid Mesquite Pomegranate	moderate	habitat	orange-red						•									•		-	+	
Pyrus calleryana	Ornamental Pear	modorato	- install	Statigo Tod																		†	
Prunus caroliniana	Carolina Laurel Cherry																					1	
Prunus cerasifera Quercus buckleyi 'Red Rock'	Purple Leaf Plum Red Rock Oak	moderate	wildlife food, habitat	red			•	•	•										•		-	+	
Quercus emoryi	Emory Oak	moderate	wildlife food, habitat	yellow															•			+	
Quercus fusiformis	Escarpment Live Oak	moderate	wildlife food, habitat	yellow		•	•	•											•				
Quercus muhlenbergii Quercus virginiana	Chinquapin Oak Southern Live Oak	moderate moderate	wildlife food, habitat	yellow/green/brown yellow				•											•				
Quercus virginiana Quercus virginiana 'Cathedral'	Cathedral Live Oak	low	wildlife food, habitat wildlife food, habitat	insignificant		•	•															+	
Q.v. 'Heritage'	Heritage Live Oak																					<u>t</u>	
Rhus lancea	African Sumac	low/moderate		white		•	•													-		1	
Robinia ambigua 'Purple Robe'* Salix gooddingii*	Purple Robe Locust Goodding's Willow	moderate moderate		purple,pink				•	•						•				•		•	•	
Sambucus mexicana	Mexican Elberberry	moderate	butterfly,bird	green cream				_										•	•	•	•		
Sophora secundiflora	Texas Mountain Laurel	low		purple		•										•		•	•	•	•	•	
Ulmus parvifolia*	Lacebark Elm	low	habitat	insignificant															•			<u></u>	
Ungriadia speciosa Vitex agnus-castus	Mexican Buckeye Chaste Tree	moderate low	habitat	pinkish-purple purple		•	•		•									•	•	•	0	+	
x Chitalpa tashkentensis	Chitalpa	IOW	namat	purpic														-		•		+	
·																							

																	IADE 4						
		BLOOMING PERIOD											USE		AREA			1					
BOTANICAL NAME	COMMON NAME	WATER USAGE	WILDLIFE ATTRACTANT	BLOOM COLOR	JANURAY	EBRUARY	ЛАКСН	VPRIL	лау	UNE	IULY	AUGUST SEPTEMBER	OCTOBER	JOVEMBER	DECEMBER	NATIVE DESERT	DESERT ADAPTIVE	NHANCED DESERT	REGIONALLY ORNATMENTAL	ROADWAY / STREETSCAPES	ENTRIES	OPEN SPACE	
SHRUBS	COMMON NAME	WATER OSAGE	WIEDEN E ATTICACTANT	BECOM COLOR				_				4 0							<u> </u>		, ш		
	Creeping Acacia,Prostrate Acacia				1 1															I			
Ambrosia deltoidea	Triangleleaf Bursage	low		white						•	•	• •								l .			
Ambrosia dumosa	White Bursage	low		golden yellow, purple, white		•	•						_	_		•	•	•	•	•	•	•	
Anisacanthus quadrifidus-wrightii	Mexican Flame	moderate	hummingbird,butterfly	red,orange							•	• •						Ŏ	ě	•	•		
Anisacanthus thurberi	Desert Honeysuckle	moderate	hummingbird	red,orange			•	•		•		•						•	•	•	•		
Artemisa ludoviciana	Wormwood	low	, , , , , , , , , , , , , , , , , , ,	yellow							•	• •	•				•	•	•	•	•	•	
Ascelepias subulata	Desert Milkweed	low	butterfly	white, yellow						•		• •			•	•	i	•	•	•	0	•	
Asparagus densiflorus	Foxtail Fern	low	,	white		•	•			_		_					•	•	•	•	•	0	
Atriplex canescens	Four-Wing Saltbush	low		yellow					•	•						•	•	•	•	•	•	•	
Atriplex confertifolia	Shadscale	low		green				•		•	•					•	•	•	•	•	•	•	
	Quail Bush	low	bird	green								• •	•			•	•	•	•	•	•	•	
Atriplex spinosa	Hopsage	low	wildlife habitat	red			•	•	•	•						•	•	•	•	•	•	•	
Alyogne huegelii	Blue Hibiscus							-													_		
	Desert Marigold	low	butterfly, bee,insect	yellow			•	•	•	•	•	• •	•			•	•	•	•	•	•	•	
Buddleja marrubifolia	Wooly Butterfly Bush	low	butterfly, bee	orange				-				• •	_				Ŏ	•	•	•	•	•	
Bulbine frutescens	Bulbine	low	butterfly, bee	orange	•	•	•			_			_				•	•	•	•	•	•	
Buxus microphylla*	Japanese Boxwood	moderate	butterfly	insignificant								_							•				
Caesalpinia gilliesii	Yellow Bird of Paradise	low	- Lancing	yellows/red		•	•	•				• •						•	•	•	•		
Caesalpinia mexicana	Mexican Bird of Paradise	moderate	wildlife food	yellow		•							•					•	•	•	•		
Caesalpinia pulcherrima	Red Bird of Paradise			,									_	_									
···	Baja Red Fairy Duster	low	hummingbird, habitat	red	•	•	•	•	•	•	•	• •	•	•	•		•	•	•	•	•	•	
Calliandra eriophylla	Pink Fairy Duster	low	hummingbird, habitat	pink		•											•	•	•	•	•	•	
Callistemon citrinus	Bottlebrush,Lemon Bottlebrush		3 /						Ŭ														
C.c. 'Nana'	Dwarf Bottlebrush																						
Cassia artemisioides	Feathery Cassia	low	butterfly	orange						•	•	• •	•	•			•	•	•	•	•	•	
Cassia nemophila	Desert Cassia	low	wildlife habitat	yellow					•	_							•	•	•	•	•	•	
Cassia phyllodenia	Silver Leaf Cassia	low		yellow	•	•	•		Ŭ								•	•	•	•	•	•	
	Shrubby Senna	low		yellow	Ť					•	•	• •	•				•	•	•	•	•	•	
Chrysactinia mexicana	Damianita	low	wildlife habitat	yellow				•	•	•		0 0	Ť				•	•	•	•	•	•	
Chrysothamnus nauseosus	Golden Rabbit Bush	low	wildlife habitat	yellow					Ŭ			0 0	•	•			•	•	•	•	•	•	
Cordia boissieri	Texas Olive	low	wildlife habitat	white	•	•	•	•	•	•	•	0 0			•		•	•	•	•	•	•	
Cordia parvifolia	Little Leaf Cordia	low	wildlife habitat	snowy white					•			• •	•				•	•	•		•	•	
Russelia equisetiformis	Coral Fountain																						
Cotoneaster lacteus	Red Clusterberry	moderate	wildlife food, habitat	white			•	•											•				
Cycas revoluta	Japanese Sago Palm		,				Ť	Ĭ															
Cowania mexicana	Cliff Rose	low	wildlife habitat	yellow			•	•	•	•	•	• •					•	•	•	•	•	•	
	Silver Dalea	moderate	butterfly	red								•	•	•				•	•		•		
Dalea frutescens	Black Dalea	low	butterfly	purple							•	• •	_				•	•	•		•	•	
Dalea pulchra	Pink Indigo Bush	moderate	butterfly	purple		•	•	•										•	•		•		
Dodonaea viscosa	Purple Hop Bush	low	wildlife habitat	yellow								• •	•	•			•	•	•	•	•	•	
Elaeagnus x ebbingei	Ebbing's Silverberry																						
Encelia farinosa	Brittlebush	low	bird	yellow			•		•							•	•	•	•	•	•	•	
Ephedra nevadensis	Nevada Jointfir, Nevada Mormon Tea																						
Ephedra viridis	Mormon Tea	low	wildlife food	yellow				•								•	•	•	•	•	•	•	
	Eremophilia,Emu Bush	low																•	•	•	•		
Eremophila glabra sp. caranosa-Winter Blaze		moderate	hummingbird	red	•				•	•	•	• •	•	•	•								
Eremophila maculata 'Valentine'	Valentine Emu Bush	low	bird,hummingbird	red			•																
Ericamerica laricifolia	Turpentine Bush	low	bird	yellow										•		•	•	•	•	•	•	•	
Eremophila hygrophana 'Blue Bells'	Blue Bells	low	wildlife habitat	blue-purple	•		•		•	•	•	• •			•					.			
	Pink Beauty Emu Bush																			.			
	Summertime Blue Emu Bush																						
	Outback Sunrise' emu bush																					<u> </u>	
	Evergreen Euonymous	moderate	wildlife food	white			•	•	•										•			1	
E.j. 'Microphylla'	Box-leaf Euonymus																					1	
E.j. 'Aureo-Variegata'	Gold Spot Euoymus																					 	
Feijoa sellowiana	Pineapple Guava																					<u> </u>	
Fraxinus greggii	Little Leaf Ash																			 		1	
Hibiscus sp.	Hibiscus Desert Lavender																			 		-	
Hyptis emoryi	Blue Point Juniper																			 		 	
	Chuparosa	low	wildlife habitat	rod/orango/yellaw												•	•	•	•	•	•	•	
Justicia Californica	Опиратова	low	wiiulile Habitat	red/orange/yellow																	•	•	

					BLOOMING PERIOD													AREA				
					JANURAY	-EBRUARY		, =		ш	JULY AUGUST	TEMBER	CTOBER	EMBER	USE		ERI ADAPINE	ENHANCED DESERT	REGIONALLY ORNATMENTAL	30ADWAY/STREETSCAPES	ENTRIES	EN SPACE
POTANICAL NAME	COMMON NAME	WATERLISACE	WILDLIFE ATTRACTANT	PLOOM COLOR	Ā	B	MARCH	PR	ИАУ		JULY	EPTE	Č	No i		4	2	Ŧ	EG	o O	Ē	OPE
BOTANICAL NAME Justicia candicans	Red Justicia	WATER USAGE moderate	wildlife habitat	BLOOM COLOR orange red	3	L		∀			5 <u>4</u>		0	2 (,	2 (•	<u>~</u>	<u>«</u>	<u> </u>	0
J.c.'Sea Green'	Sea Green Juniper	moderate	wilding napitat	orange red				•	•	•	•		•	•				•				\vdash
J.c. 'Torulosa'	Hollywood Twisted Juniper																					
Justicia spicigera	Mexican Honeysuckle	moderate	butterfly,hummingbird	orange	•	•	•	•	•	•	• •	•	•	• (•	•	•	•	
Juniperus sp.	Juniper						•															
Lantana camara	Bush Lantana	moderate	butterfly,hummingbird	purple/bright red						•	• •	•	•	•				•	•	•	•	
Larrea tridentata	Creosote Bush	low	bee, habitat	yellow							0 0		Ū	- (9 (•	•	•	•	•	•
Lavandula angustifolia*	English Lavender	moderate	bee	blue/purple						•	• •								•			
Leucophyllum candidum 'Silver Cloud'	Silver Cloud Sage	low	bee, habitat	purple							• •					Ī	•	•	•		•	
Leucophyllum candidum 'Thunder Cloud'	Thundercloud Texas Ranger	low	bee, habitat	indigo							• •					(•	•	•	•	•	
Leucophyllum frutescens 'Compacta'	Compact Texas Ranger	low	bee, habitat	purple	•						• •					(•	•	•	•		
Leucophyllum langmaniae Rio Bravo	Rio Bravo Sage	low	bee, habitat	purple							• •	_		•								
Leucophyllum frutescens 'Green Cloud'	Green Cloud Texas Ranger	low	bee, habitat	purple							• •	•	•	• (-	•	•	•	•	•	•
Leucophyllum frutescens	Texas Ranger, Texas Sage, Ce																					\square
Leucophyllum laevigatum	Chihuahuan Sage	low	bee, habitat	purple,pink							• •					-	•	•	•	•	•	•
Leucophyllum langmaniae 'Rio Bravo'	Rio Bravo Sage	low	bee, habitat	purple	•		•	•	•	•	• •	•				•	J	•	•	•	•	•
Leucophyllum langmaniae 'Lynn's Legacy'	Lynn's Legacy Texas Ranger		hara habitat	Indiana adiadah						_	_											_
Leucophyllum pruinosum 'Sierra Bouquet'	Sierra Bouquet Sage	low	bee, habitat	blue-violet						•	• •	•	•	•		'	•	•	•	•	•	•
Leucophyllum x 'Rain Cloud'	Rain Cloud Texas Ranger Texas Cimarron Ranger	low	bee, habitat	indian/dark blue													•	•	•	•	•	•
Leucophyllum zygophyllum 'Cimarron'	Waxleaf Privet, Japanese Priv		bee, nabitat	indigo/dark blue							•	•	•	•		'		•	•	•	•	
Ligustrum japonicum N. d. 'Nana'	Dwarf Heavenly Bamboo	761																				
Myrtus communis	Dwarf Greek Myrtle	moderate	hummingbird, wildlife food	white					•	•									•			
M.c. 'Compacta'	Compact Myrtle	moderate	mariningbira, whalie 100a	Willie																		
M.c.boetica	Twisted Myrtle																					
Photinia x fraseri	Redtip Photinia, Fraser's Photi	inia																				
Pyracantha Santa Cruz	Hybrid Pyracantha	moderate	wildlife food, habitat	white			•	•	•										•			
Pyracantha sp.	Pyrancantha,Firethorn	moderate	Tillame reed, riabilat	· · · · · · · · · · · · · · · · · · ·																		
P. t. 'Variegata'	Variegated Mock Orange																					
P. t. 'Wheeler's Dwarf'	Wheeler's Dwarf Mock Orange	е																				
Rhapiolepis indica	Indian Hawthorne	moderate	wildlife food	pink			•												•			
Rhus ovata	Sugar Bush	low	wildlife food	white/pink			•	•	•							(•	•	•	•	•	
Rhus trilobata	Squaw Bush	low	wildlife food, habitat	white/yellow												(•	•	•	•		
Rhus virens	Evergreen Sumac	moderate	butterfly,birds	white/yellow							• •							•	•	•		
Rosa sp.	Rose			•																		
Rosmarinus officinalis	Rosemary																					
Ruellia peninsularis	Desert Ruellia																					
Salvia greggi	Red Sage	low	hummingbird	red							• •							•	•	•		
Salvia clevelandii	Chaparral Sage	low	hummingbird	blue/purple							• •							•	•	•		
Salvia dorrii	Desert Sage	low	hummingbird	blue												(•	•	•	•		•
Salvia sp.	Sage		h																			
Salvia leucantha	Mexican Bush Sage Gray Lavender Cotton	moderate low	hummingbird	purple									•	• (•		•	•	+
Santolina chamaecyparissus Santolina rosmarinifolia(=S.virens)	Gray Lavender Cotton Green Lavender Cotton, Green	1-11		yellow						•	• •											
Senna artemisioides(=Cassia)	Feathery Senna, Feathery Cas																					\vdash
Senna nemophila (=Cassia)	Desert Senna, Desert Cassia	,																				
Senna wislizenli(=Cassia)	Shrubby Senna, Shrubby Cass	sia																				
Santolina virens	Green Santolina	low	butterfly	vellow							• •						•	•	•	•	•	•
Simmondsia chinensis	Jojoba	low	wildlife food	cream	•	•	•										•	•	•	•	•	
S.c. 'Vista'	Compact Jojoba						•															
Tagetes lemmonii	Mountain Marigold	moderate	butterfly	yellow							•	•	•	•					•			
Tagetes lucida	Mexican Tarragon	moderate	wildlife habitat	yellow							•											
Tecoma stans - Variety	Yellowbells	low		yellow/orange/red			•		•	•	• •			•				•	•	•	•	
Tecoma capensis	Cape honeysuckle	low		red-orange	•						•	•	•	• (
Teconma x 'Sunrise' TM	Sunrise' Tecoma																					
Tecoma x 'Orange Jubilee' Tecoma x 'bells on fire'	Orange Jubilee Bells On Fire	moderate moderate	bird,hummingbird butterfly,bird,bee	bright orange red/orange/dark red			•		•		• •			• (
Teucrium chamaedrys Teucrium fruticans	Germander Bush Germander	moderate	bee	blue			•	•	•		• •			•				•	•	•	•	
Vauquelinia califronica	Arizona Rosewood						,															
Viburnum sp.	Viburnum																			Ì		
Viquiera deltoidea	Goldeneye	low		yellow				•	•	•	• •					9		•	•	•	•	•
Xylosma congestum	Shiny Xylosma	moderate	habitat	off white			•												•			
X.c. 'Compacta'	Dwarf Xylosma																					
Zauschneria californica	Hummingbird Flower	low	hummingbird													(•	•	•	•	•	•

					BL OOM	IING E	JEDIO!		_	_	_	_	_	_		USE				AREA		
					BLOOMING PERIOD									03L			J K					
					JANURAY	=EBRUARY	MARCH	RIL	٨	JUNE	JULY	AUGUST	OCTOBER	NOVEMBER	CEMBER	NATIVE DESERT	SERT ADAPTIVE	ENHANCED DESERT	REGIONALLY ORNATMENTAL	ROADWAY / STREETSCAPES	ENTRIES	OPEN SPACE
BOTANICAL NAME	COMMON NAME	WATER USAGE	WILDLIFE ATTRACTANT	BLOOM COLOR	₹	Ш	Σ	Α	MAY	3	3	AU SE	8	Š	DE	ΑN	DE	ä	2	8	III	B
ACCENTS	Agayo																		1		İ	4
Agave sp. Agave americana 'Marginata'	Agave Century Plant	low		yelow						•	•											+
Agave angustifolia	Nanew Leaf Agave	low		greenish-yellow			•	•	•								•	•	•	•	•	•
Agave bovicornitz	Cow's Horn Agave	low		insignificant													•	•	•	•	•	•
Agave desmettiana	Smooth Leaf Agave	low		insignificant													•	•	•	•	•	•
Agave gemniflora Agave parryi-huachucensis	Twin Peaks Agave Parry's Agave	low low		insignificant insignificant												•	-	•		•	•	•
Agave schidigera 'Durango Delight'	Durango Delight	low		reddish-purple	•	•	•		•								•	•	•	•	•	•
Agave sisalana	Sisal Agave	low		greenish-yellow											•							
Agave victoria-reginae	Queen Victoria Agave	low		insignificant													•	•	•	•	•	•
Agave weberi	Weber's Agave	low		insignificant																		\perp
Aloe sp. Aloe barbadensis	Aloe Vera	low		yellow		•	•	•	•	•	•	•					•	•	•	•	•	
Aloe X 'Blue Elf'	Blue Elf Aloe	low		orange-red	•			•									•	•	•	•	•	•
Aloe nobilis	Gold Tooth Aloe	low	hummingbird	orange-red						•	•	•					•	•	•	•	•	•
Aloe saponaria	African Aloe	low	butterfly, bird, bee	orange-red/yellow			•	•	•	•	•	• •		•			•	•	•	•	•	•
Aloe striata	Coral Aloe	low		coral-orange		•																
Agapanthus africanus	Lily of the Nile																					\vdash
Baileya multiradiata Dasylirion acrotriche	Desert Marigold Green Desert Spoon	low	habitat	white						•	•	•					•	•		•	•	•
Dasylirion wheeleri	Desert Spoon	low	habitat	white					•								•	•	•	•	•	•
Dietes bicolor*	Fortnight Lily	moderate		yellow					•		•								•			
Dietes iridioides 'vegata'	Butterfly Iris/African Iris	moderate	wildlife habitat	white					•		•								•			
Drosanthemum hispidum	Ice Plant Golden Barrel Cactus	low low	wildlife food	purple					•	•	•						•	•	•	•	•	•
Echinocactus grusonii Echinocarpus engelmannii	Strawberry Hedgehog	low	wildlife 100d	insignificant pink			•	•	•	•						•		•		•	•	•
Erigeron divergens	Native Fleabane	iow —		print																		
Euporbia characias	Shrubby Spurge	low	bee	chartreuse			•	•	•		•	•						•	•	0	•	
Ferocactus acanthodes	Barrel Cactus	low	wildlife food	yellow					•	•						•	•	•	•	•	•	•
Ferocactus wislizenii	Fishhook Barrel Cactus Ocotillo																					\vdash
Fouquieria splendens Gazania rigida	Gazania																					+
Hemerocallis hybrids	Daylily Hybrids	low	bee	yellow			•	•	•	•	•	• •		•				•	•	•	•	
Hesperaloe parvifolia	Red Yucca	low	hummingbird, wildlife food	yellow/red				•	1		•						•	•	•	•	•	•
Hesperaloe x Perfu Pink Parade	Pink Parade	low	hummingbird	pink			•	•	•		•	• •										
Lavandula sp. Liriope gigantea	Lavender Giant Lily Turf																					
Liriope muscari	Lily Turf	high	bird	purple								• •							•			+
Melampodium leucanthum	Blackfoot Daisy	J .																				
Nolina microcarpa	Bear Grass	low	butterfly, hummingbird, wildlife food, be	ee white			•	•	•	•	•	• •					•	•	•	•	•	•
Nolina nelsoni	Blue Nolina																			1	1	<u> </u>
Opuntia engelmannii Opuntia ficus-indica	Englemann's Prickly Pear Indian Fig Cactus																			1	+	+
Opuntia microdasys	Bunny Ears																			1	1	+
Penstemon sp.	Penstemon																					
Penstemon parryi	Parry's Penstemon	low	hummingbird, bee	pink			•									•	•	•	•	•	•	•
Penstemon pseudospectabilis	Canyon Rose Sp. Rocky Mountain Blue Penstern	low	hummingbird, bee	pink			•	•		•								•	•	•	•	
Penstemon strictus Penstemon superbus	Superb Penstemon	low low	hummingbird, bee hummingbird, bee	blue/purple coral			•	•		•							•	•		•	•	0
Perovskia atriplicifolia	Russian Sage	1011	iiiiguiu, 200	Jordi																		+ -
Psilostrophe cooperi	Paper Flower																					
Sphaeralcea ambigua	Globe Mallow																			1	1	
Tagetes lemmonii Tetraneuris acaulis (=Hymenoxys)	Mountain Marigold Angelita Daisy																			1		+
Tagetes lucida	Mexican Tarragon, Mexican Ma	arigold																		1	+	+
Viguiera parishii (=deltoidea)	Goldeneye																					
Yucca sp.	Yucca																					
Yucca aloifolia	Spanish Bayonet	low	wildlife food, habitat	white							•						•	•	•	•	•	•
Yucca pallida Yucca rostrata	Pale Leaf Yucca Yucca	low low	butterfly, hummingbird, bee hummingbird, wildlife habitat	white white					•		•	•				•	•	•	•	0	0	•
Yucca thompsoniana	Thompson's Yucca	low	wildlife habitat	white					•			-	'				•	•	•	•	0	•
Zinnia acerosa	Desert Zinnia																			L		
Zinnia grandiflora	Prairie Zinnia																					
Zephyranthes sp.	Fairy Lily	moderate	wildlife habitat	white						•	•	• •	•						•		1	<u> </u>

					BLOOMING PERIOD									luc	25			ADEA				
					BLOOMI	BLOOMING PERIOD								US	SE			NTAL	AREA (APES			
					JANURAY	-EBRUARY MARCH		IAY	IUNE	JULY	AUGUST	EPTEMBER	OCTOBER	NOVEMBER	,	NATIVE DESERT	ESERT ADAPTIVE	ENHANCED DESERT	REGIONALLY ORNATMENTAL	ROADWAY / STREETSCA	ENTRIES	OPEN SPACE
	COMMON NAME	WATER USAGE	WILDLIFE ATTRACTANT	BLOOM COLOR	1 3 t	Ĭ 2	4	Ξ	≒	<u> </u>	₹	Š	ŏ	S F		ž	5	ū	~	ĕ	ũ	ō
GRASSES Achnatherum hymenoides	Indian Ricegrass	low	wildlife habitat	vellow/green												•	•	•	•	•	•	•
	Purple Threeawn	IOW	Wildlife Habitat	yellow/green					•	•	•	•										
Bouteloua curtipendula	Side-Oats Grama																-					+
	Blue Fescue	low	hummingbird	golden					•	•	•						•	•		•		•
Ü	Regal Mist	low	wildlife habitat	pink,purple						_			•					•	•	•	•	
	Purple Muhly Grass	low	wildlife habitat	pink,purple								•		•							_	
	Autumn Glow			1 1																		
	Deer Grass																					
	Nashville																					
	Mexican Feather Grass																					
` ' ' '	Mondo Grass	moderate	butterfly, hummingbird	violet/lavender					•									•	•	•	•	
	Purple Fountain Grass	low	hummingbird, wilflife food	burgundy					•	•	•						•	•	•	•	•	
	Golden Bamboo	moderate	wildlife food	insignificant															•			
	Alkali sacaton	low	wildlife habitat	yellow					•	•	•	•	•	•			•	•	•	•	•	•
GROUND COVERS																						
	Desert Carpet Creeping Acacia								1	1												
Aptenia cordifolia	Hearts and Flowers,Red Apple Ice Plant																					†
	Asparagus Fern																					
	Sierra Sundrop	low	hummingbird	yellow				•		•	•	•	•	•					•			
	Red Spike Iceplant									Ť												
	Ground Morning Glory																					
Dalea capitata	Sierra Gold Dalea	low	wildlife food	yellow		•		•)			•	•	•				•	•		•	
	Prostrate Indigo Bush	low	butterfly	rose-purple					•	•	•							•	•	•	•	
Drosanthemum speciosum	Red iceplant	moderate		hot pink/purple		•				•								•	•	•	•	
	Candelilla wax	low	insect	white/pink				•		•												
	Spurge (Gopher Plant)	low		chartreuse yellow	(• •													•			
	Gaura	low	butterfly, hummingbird, bee	white/pink				•									•	•	•		•	•
ů	Gazania	low	bee	yellow-gold															•			
	Angelita Daisy	low	butterfly	yellow-gold													•	•	•		•	•
	Blue Carpet Juniper																					
	Buffalo Juniper																					
	Bush Lantana	low	butterfly, hummingbird, bee														•	•	•	•	•	•
	Trailing Lantana	low	butterfly, hummingbird, bee	yellow, white, purple		•		•	•	•	•	•					•	•	•	•	•	•
	Rocky Point Ice Plant	la	wildlife food	and anything to								-							_			
	Blackfoot Daisy	low	wildlife food	red,multi color		•		•					•	•				•	•	•	•	+
	Prostrate Myoporum	moderate low	butterfly, bee	pink pink					•	•					-			•	-	•	•	+
	Mexican Evening Primrose Hooker's Evening Primrose	low		yellow		-		•		_	_	•					•		•	•	•	•
	D 1 1 D	IUW		yellow					•	•	•							•	•	•	•	_
	Prostrate Rosemary Paper Flower	low		yellow				•			•		•	• •				•	•		•	+
	Firethorn	moderate	wildlife food, habitat	white									-								-	
	Germander	moderate	bee	purple				•				•	•	•					•			
	Star Jasmine	moderate	butterfly, bee	white							•	_										
	Purple Heart,Wandering Jew		,,																			
	Gooding Verbena	low	butterfly, bee	lavender					•								•	•	•	•	•	•
	Moss Verbena	low	butterfly, bee	purple/plum/white							•	•	•	•			•	•	•	•	•	•
Glandularia tenera(=Verbena)	Rock Verbena																					
	Peruvian Verbena	low	butterfly, bee	red		•) (•	•	•	•	•		•				•	•	•	•	
Verbena rigida (Coarse Verbena	low	butterfly, bee	purple					•	•				•				•	•	•	•	
Zinnia grandiflora	Prairie Zinnia	moderate	butterfly	yellow				•			•		•					•	•	•	•	
																						1

1. Desert Revegetation

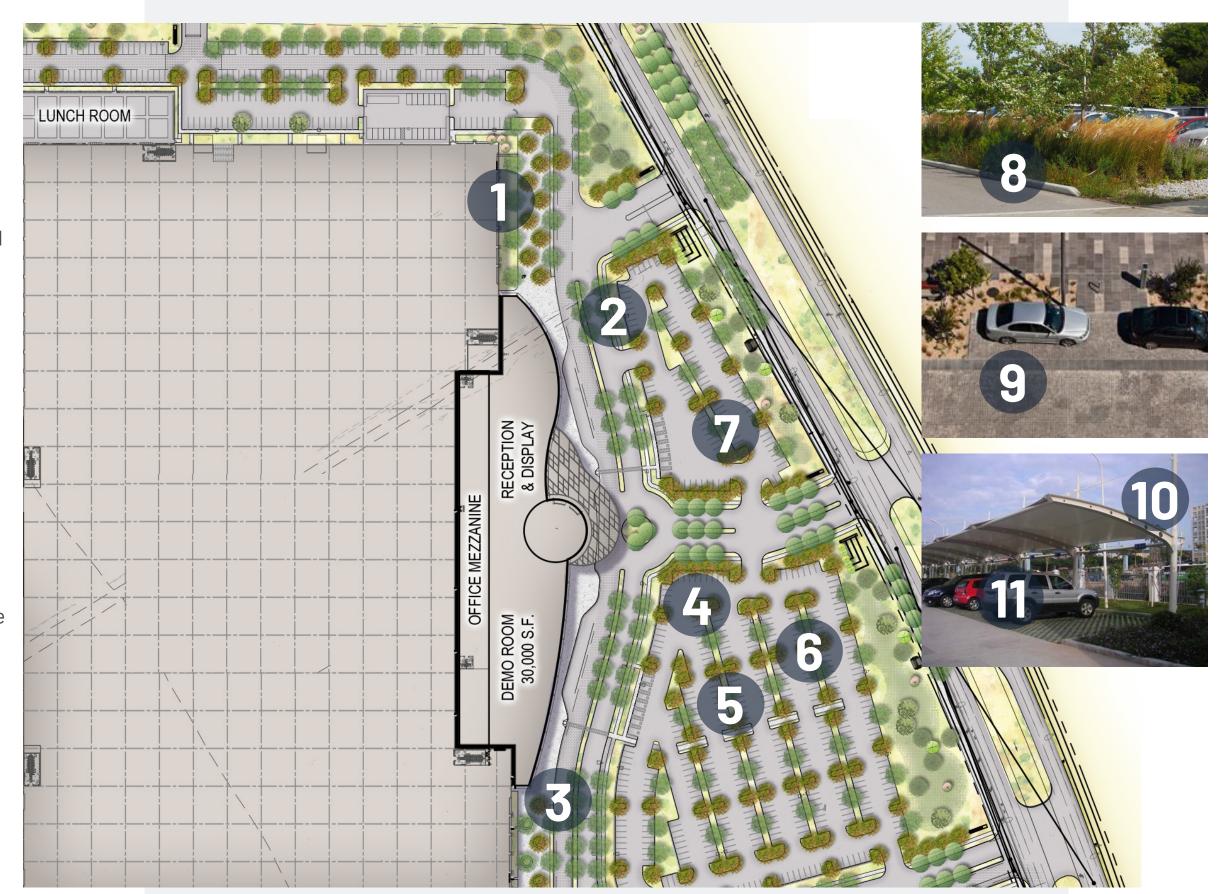
2. Desert Adaptive

3. Enhanced Desert

4. Regional Ornamental



- 1. 5' minimum Landscape areas adjacent to buildings
- 2. 8' landscape area along circulation and parking aisles as well as along building side and rear elevations if a walkway is not provided
- 3. Buildings shall be separated from parking bays by landscaping and walkways
- 4. Parking lot trees shall have large canopies
- 5. A minimum of one 2-inch caliper tree shall be planted at four parking space intervals
- 6. 6 landscape diamonds shall include structural soils and/ or permeable surfaces;
- 7. Vehicle overhang into landscaping is encouraged
- 8. Landscape areas shall be protected Raised curbs, tree guards or other devices
- 9. Within parking areas, vegetation and hardscape materials are allowed
- 10.Landscape may be relocated if shade structures are provided
- 11. Alternative materials such as permeable pavers are encouraged



CHAPTER 6: SIGNAGE





6. SIGNAGE





6.1 Intent

Establishing uniform signage guidelines will aid in maintaining a positive identity for the WHGBD. The intent of this chapter is to provide needed direction that will facilitate uniform application of the signage guidelines for the entire WHGBD area irrespective of the type of industries and community facilities that will be accommodated. The guidelines contained herein provide an overall framework for the WHGBD signage to ensure visual cohesiveness.

Signage in employment areas is primarily used for branding, identification and wayfinding, not for advertising. Communicating the layout of the employment campus design with the users, tenants, and visitors requires clear and concise delivery of an understandable message through diverse visual media.

In addition to adherence to Title 19 of the City of Henderson Development Code (including provisions regarding temporary signs), the following design principles are illustrated and shall be considered during the design and development of signage within the WHGBD:

6.2 <u>Signage Concept and</u> Character

Signs are part of the architectural embellishment of the building, complementing its materials and colors.

A well-conceived system of site and building signage is important in making sense of a campus-like environment. Successful signage can vary in size, materials, and details depending on the business and location where it is being used. Select sign materials that are durable and compatible with the design of the façade on which they are placed.

Since the architecture within the WHGBD has been conceptually defined to express a modern contemporary architectural theme that reflects the innovative



Communicating the layout of the employment campus design with the users, tenants, and visitors requires clear and concise delivery of an understandable message through diverse visual media character of hi-tech, employment-based industries, signage within the WHGBD shall mirror that character (see **Exhibit Y: Signage Character**).

6.3 General Standards

Signs and related graphics shall be an integral part of the overall building and site design. Sign concepts shall be considered early in the design process so that signs and graphics can be integrated into the building architecture. The following guidelines are required:

- A Master Sign Plan, containing specific sign criteria, shall be created for each project (see Section 6.8):
- All signs must be of a high quality using the materials listed in Section 6.4.
- The style, height, size, color, location, and material of signs shall be consistent with the building design and architecture proposed within a specific site;
 - » Primary entry features (such as the one located on the northwest corner of Via Inspirada and Via Nobila) shall have a minimum total area of 10,000 s.f. inclusive of landscape area and the signage feature and include the following:
 - A minimum of one (1) threeinch (3") caliper tree for every seven hundred fifty (750) sf of landscape area shall be provided;
 - A minimum of seventyfive percent (75%) of the landscape area shall be planted with five (5) gallon shrubs, groundcovers or accents;
 - A maximum of twentyfive percent (25%) of the landscape area shall be planted with one (1) gallon shrubs, groundcovers or

accents.

- Secondary entry features (such as those located west of Via Inspirada south of Larson Avenue and north of Via Nobila) shall have a minimum total area of 3,500 s.f., inclusive of landscape area and the signage feature where the entry may be comprised of two separate land areas on each side of an entry drive, and include the following:
 - A minimum of one (1) threeinch (3") caliper tree for every seven hundred fifty (750) sf of landscape area shall be provided;
 - A minimum of seventyfive percent (75%) of the landscape area shall be planted with five (5) gallon shrubs, groundcovers or accents;
 - A maximum of twentyfive percent (25%) of the landscape area shall be planted with one (1) gallon shrubs, groundcovers or accents.
- » Tiertiary entry features (all other entry feature that are not a Primary or Secondary entry feature) shall have a minimum total area of 1,000 s.f. inclusive of landscape area and the signage feature and include the following:
 - A minimum of one (1) threeinch (3") caliper tree for every seven hundred fifty (750) sf of landscape area shall be provided;
 - A minimum of seventyfive percent (75%) of the landscape area shall be planted with five (5) gallon shrubs, groundcovers or accents;
 - A maximum of twenty-five

VISION



A Master Sign Plan aims to foster safety, facilitate management of an area, provide learning opportunities for visitors, and offers a positive image and identity for all entities present onsite.

DESIGN



Since the architecture within the WHGBD has been conceptually defined to express a modern contemporary architectural theme that reflects the innovative character of hi-tech, employment-based industries, signage within the WHGBD shall mirror that character.

INNOVATION



The concept of wayfinding is an important part of any well designed environment. When visiting a strange new place, viewers need to be able to find their way to their destination. A good wayfinding system, therefore, will allow them to reach their destination easily, and quickly.

percent (25%) of the landscape area shall be planted with one (1) gallon shrubs, groundcovers or accents.

- The size of signs shall vary depending on how they are viewed. Signs within pedestrian areas shall be located close to eye level and shall be smaller than signs which are to be viewed from a moving vehicle; and,
- Imaginative signs utilizing a variety of materials are encouraged.

6.4 Materials and Colors

Signs within the WHGBD must include a combination of three (3) or more the following materials and colors:

- Cast-in-place concrete (smooth finish);
- Honed CMU (Charcoal);
- Honed CMU (Black);
- Metal panel cladding;
- Tube steel;
- Reverse lit channel signage;
- Two accent colors (preferably red and grey, but other complementary colors may be approved by the Planning Department upon submittal);
- Accent landscape planting such as the use of layered shrubs materials graduating in height from lower to taller or through the use of textured materials such as cacti or succulents.

6.5 **Prohibited Signs**

Prohibited signs within the WHGBD include (in addition to Tile 19 standards):

- Freestanding/pole signs are not allowed within the WHGBD;
- No cabinet signage; and,
- Raceways, if used, must be equal to the letter height.

6.6 Location and Placement

Signage location and placement shall comply with Title 19. Signs are a prominent communication tool, and effective signage location and placement, can help employees, visitors and customers navigate through even the most confusing environments with a sense of confidence, safety, and security. The following guidelines shall be followed:

 Provide maps and signs in public spaces showing connections, destinations, and

- locations of public facilities such as nearby transit stops;
- Locate signs where architectural features or details suggest a location, size, or shape for the sign;
- Place signs so they do not dominate or obscure the architectural elements of the building design; and,
- Entry signage shall be used at all major entryways to create a strong sense of arrival and to promote a campus identity.

6.7 Illumination

All signs within the WHGBD may be illuminated. Signs may be illuminated by either internal or external means. Methods of signage illumination may include, but not be limited to: electric lamps, such as neon tubes; LED; fiber optic; incandescent lamps; cathode ray tubes exposed directly to view; shielded spotlights and wall wash fixtures, amongst other lighting methods. In addition, the following shall be followed:

- All illuminated signs shall be designed, located or screened so as to limit direct light sources onto any residential units that are located outside of the WHGBD;
- See Title 19 language for auto dimming and maximum illumination standards;
- Illumination of facades to highlight architectural details and features is encouraged. Fixtures shall be small, shielded and directed toward the building rather than the street in order to minimize glare for pedestrians; and,
- Signs shall be illuminated only to the minimum level required for nighttime readability.

6.8 Master Sign Plan

Each development within the WHGBD shall complete a master sign plan. The master sign plan process in Title 19 shall be followed in the WHGBD. This plan will regulate signage for multi-phase developments on individual or separate parcels. Master sign plans are anticipated to include long-term development directional, identification and individual business signs that do not fall into defined sign categories. The master sign plan shall include the number of signs, setback, location, design, area and height.

INNOVATION



- TEXTURED PRINTING
- RGB LED SIGNAGE LIGHTING
- SIGNAGE MATERIALS

TECHNOLOGY



- INTERACTIVITY
- OLED
- MOBILE "CLOUD" CONTROL CAPABILITIES
- DYNAMIC DIGITAL SIGNAGE

VISION



 EASILY READABLE, COMPATIBLE, AND MEMORABLE SIGNAGE

DESIGN



 REFLECTS THE INNOVATIVE CHARACTER OF HI-TECH, EMPLOYMENT-BASED INDUSTRIES





















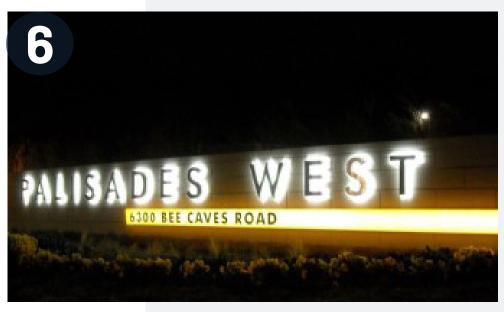


- Cast-in-place concrete (smooth finish);
- 2. Honed CMU (Charcoal)
- 3. Honed CMU (Black)
- 4. Metal panel cladding;
- 5. Tube steel;
- 6. Reverse lit channel signage;
- 7. Two accent colors
 (preferably red
 and grey, but other
 complementary
 colors may be
 approved by the
 Planning Department
 upon submittal)
- 8. Accent landscape planting.

















- Freestanding/pole signs are not allowed within the WHGBD;
- 2. No cabinet signage; and,
- 3. Raceways, if used, must be smaller than or equal to the letter height.



















- 1. Provide maps and signs in public places
- 2. Locate signs where architectural features or details suggest a location, size, or shape for the sign
- 3. Place signs so they do not dominate or obscure the architectural elements of the building design
- 4. Entry signage shall be used at all major entryways to create a strong sense of arrival and to promote a campus identity



CHAPTER 7: LIGHTING





7. LIGHTING





7.1 Intent

It is the intent of these guidelines to control the obtrusive aspects of excessive and careless outdoor lighting usage while preserving, protecting and enhancing the lawful nighttime use and enjoyment of any and all property. It is recognized that portions of properties may be required to be unlighted or have reduced lighting levels in order to allow enough lumens in the lighted areas to achieve light levels in accordance with nationally recognized recommended practices.

7.2 <u>Lighting Concept</u>

Liahtina buildinas, of streets, landscape, pedestrian areas, artwork, and parking areas shall comply with Title 19 of the City of Henderson Development Code. The following additional guidelines are offered for further consideration to add to the WHGBD's attractiveness, reinforcina while also security, and enjoyment of the nighttime atmosphere (see Exhibit AC: Lighting Character):

7.3 <u>Exterior and Site</u> <u>Lighting</u>

Exterior lighting includes groundmounted exterior lighting that may be used to enhance the atmosphere and safety of all public parking areas, walkways and entrances, and shall comply with the following:

- Lighting shall be limited to the minimum level and duration necessary for public safety. Levels of illumination for most uses range from 0.5 to 1.5-foot candles of average illumination. Areas of higher or lower illumination shall be indicated on project plans;
- Light pole fixture heights shall not exceed 8 feet when adjacent to residential uses unless the setback of the fixture from property line is twice the height of the fixture. In all cases, light fixtures should not exceed 20 feet in height;
- Motion sensor lighting is required. This lighting feature allows for a constant low illumination but may brighten to



LED stands for light emitting diode. LED lighting products produce light approximately 90% more efficiently than incandescent light bulbs.

full strengthen when a motion is detected:

- Exterior lighting installations shall be utilized and include timers, dimmers, sensors, or photocell controllers that turn the lights off during daylight hours or hours when lighting is not needed, to reduce overall energy consumption and eliminate unneeded lighting;
- Exterior lighting installations shall be designed to avoid harsh contrasts in lighting levels;
- Fixtures and lighting systems used for safety and security shall be in good working order and shall be maintained in a manner that serves the original design intent of the system;
- Parking and vehicular circulation lighting shall be LED fixtures. Bollard-type lighting for pedestrian activity areas may use other lighting types;
- Lighting fixtures in parking areas shall be located to assure adequate light levels without displacing planned trees. Light fixture placement shall be shown on the landscape plans;
- Vegetation and landscaping shall be maintained in a manner that does not obstruct security lighting and minimizes possible entrapment spaces;
- All vehicle entrances, driveways, parking areas, service areas, walkways, and loading areas shall be well lit for security and safety;
- Light fixtures attached to exterior walls of buildings shall be compatible with building design;
- Wall pack lighting shall be limited to 18 feet above finished grade except at entry/exits;
- Lighting adjacent to residential

- areas outside of the WHGBD shall be of a full-cut off and shielded type to prevent light spillage;
- Utilize adequate, uniform, and glare-free lighting, such as darksky compliant fixtures, to avoid uneven light distribution, harsh shadows, and light spillage onto adjacent properties;
- Site lighting shall minimize light spill into the dark night sky; and,
- Light sources shall not be visible from outside the boundaries of the site.

7.4 Accent Lighting

Lighting is also a useful tool for enhancing architectural and landscape aesthetics and enjoyment of a site. Accent lighting should be utilized to highlight trees, architectural elements, landscape elements, artwork, and other unique features as appropriate, especially in open spaces and amenity areas. The following regulations will govern accent lighting:

- Fixtures used to accent architectural features, materials, colors, style of buildings, or art shall be located, aimed, and shielded so that light is directed only on those features. Such fixtures shall be aimed or shielded so as to minimize light spill into the dark night sky;
- Lighting fixtures shall not generate excessive light levels, cause glare, or direct light beyond the facade onto neighboring property, streets, or the dark night sky;
- Uplighting of building facades shall only be used to highlight specific architectural features such as principal entrances, corners, terminus elements, and towers, and allowed within the WHGBD;

TECHNOLOGY



A new lighting system can reduce the energy load of a building by two-thirds. The expected lumen depreciation rate of LED lighting luminaires is approximately one percent per year. Compare that to a metal halide system that may potentially depreciate at greater than 10 percent per year.

VISION



A highly-efficient exterior lighting system that works towards the site's long-term sustainability goals, provides more uniform, targeted illumination that improves nighttime visibility, improves safety, and provides a comfortable and safe environment for employees and visitors.

INNOVATION



LED lights are able to be directed at the ground in a manner where no light is lost. This creates a more illuminated and safer area for employees and visitors. A well-lit area makes for a safe area. When the city of Los Angeles switched over to LED lighting they saw 7.82% drop in robbery/theft and a 13.6% drop in vehicle theft from 2009-2011!

- Luminaires used for uplighting are limited to 100 Lumens per linear foot of façade to be lit (measured horizontally), unless the fixture is 24 volts or less; and,
- Direct view fixtures are permitted in the WHGBD on building facades and are limited to 250 lumens per linear foot of fixture.

7.4.1 Directional Luminaires

Directional Luminaires may be used to illuminate signs and flagpoles. Such luminaires shall be installed and aimed so that they illuminate only the specific object or area and do not shine directly onto neighboring properties and roadways and are aimed of shielded as to minimize light spill into the dark night sky.

7.4.2 Landscape Lighting

Uplighting and downlighting of trees, artwork, kiosks, and other landscape features is strongly encouraged. All landscape accent fixtures shall be permanently fixed such that they are resistant from tampering or redirection of the light source. Landscape lighting fixtures must be 24 volts or less unless they are directed downward and fully shielded.

7.4.3 Festoon Lighting

Festoon lighting refers to a specific style of electric lighting with individual bulbs suspended along a string that incorporates the power wiring, suspended between two or more points. Festoon lighting is permitted in outdoor use areas within the WHGBD as temporary or permanent installations and shall meet all industry required standards for installation and operation.

7.5 Security Lighting

In the field of physical security, security lighting is lighting that intends to deter or detect intrusions or other criminal activity on a piece of real property. It can also be used to increase a feeling of safety. Lighting is integral to crime prevention through environmental design. The following standards must be followed:

 Use ornamental lighting to highlight pedestrian paths and entrances while providing security by including after-hours lighting at building entrances; and, Glare must be minimized by using soft or reflected lighting which helps to create a sense of security and enhance the pedestrian experience.

7.6 Exemptions

7.6.1 Federal and State Facilities

Those facilities and lands owned and/or operated as protected by the United States federal government or the State of Nevada is exempted by law from all requirements of this chapter. In addition, all federal and state detention facilities and other places for lawful confinement shall have the same exemption. Voluntary compliance with the intent of this chapter at those facilities is encouraged.

7.6.2 Motion-Sensor-Controlled Lighting

Motion-sensor controlled fixtures being utilized for security or safety purposes, with a wattage of less than or equal to 100 watts (1,800 lumens) per lamp, are exempt from these provisions.

7.6.3 Electric Utility Leased Lighting

The use of electric utility leased lighting is allowed that does not exceed a mounting height of 28 feet. The light sources shall not exceed a color temperature of 3,500 degrees Kelvin. The lighting must meet any of the relevant shielding requirements established in this chapter.

INNOVATION



 LIGHTING AVAILABLE IN A VARIETY OF SHAPES, SIZES, LUMEN OUTPUTS, AND COLOR TEMPERATURES TO SUPPORT A BROAD SPECTRUM OF NEEDS

TECHNOLOGY



LED TECHNOLOGY RESULTS IN: LONGER LIFE

- LOW POWER CONSUMPTION
- NO HARMFUL RADIATIONS AND EMISSIONS

VISION



- HIGHLY-EFFICIENT LIGHTING
- SITE LIGHTING WORKS TOWARDS THE SITE'S LONG-TERM SUSTAINABILITY GOALS,
- UNIFORM, TARGETED ILLUMINATION
- IMPROVES SAFETY

DESIGN



- LIGHTING TO ENHANCE ARCHITECTURE
- FIXTURES THAT COMPLEMENT ARCHITECTURE
- LIGHTING THAT ENHANCES LANDSCAPE

























CHAPTER 8: DESIGN REVIEW PROCESS





8. DEVELOPMENT REVIEW PROCEDURES

Site plans, architecture and landscape plans will be required to complete a Concept Plan Review (CPR) as the initial step in the City's review process to ensure quality development within the WHGBD, followed by a Design Review Application.

8.1 <u>Design Process</u>

The WHGBD design process consists of two (2) steps: Concept Plan Review and a mandatory Design Review.

8.1.1 Step One - CPR Submittal and Staff Review

Step one includes a preliminary concept plan review to ensure the builder's site, landscape, and architecture plans are compatible with these Design Guidelines. Street layouts, diversity standards, access, constraints, parking, landscape, architecture, and other requirements shall all be reviewed. A master development site plan is required when development will occur in phases. In order to show compliance with WHGBD Design Guidelines, all CPR submittals must complete a Project Compliance Information Form. Applicants will use this form to identify how each Design Guideline is met. Staff will use the Project Compliance Information Form as a basis for any requested changes or modifications and will identify any questions or discussion items for the development team.

The City of Henderson Community Development & Services staff will schedule a meeting with the development team within ten (10) working days of the CPR review deadline. The meeting shall be in person to discuss all submitted items. A list of key design comments to be addressed will be generated in this meeting for the development team's use in preparing further City submittals.

8.1.2 Design Review Process

Following the CPR meeting with City of Henderson Staff, applicants shall follow the City's standard review and development process (Design Review Application and other relevant land use applications, as needed). Any submittal to the City of Henderson, after the Concept Plan Review, must include approval of the Project Compliance Information Form from the City of Henderson Community Development & Services Department to ensure that all comments from the CPR have been addressed.

8.2 Waivers

A waiver from these standards may be necessary from time to time. In these cases, applicants shall utilize Section 19.6.9.D of the Code to allow development to occur in a manner that meets the intent of these standards and Code, yet provides for an alternate design that does not strictly adhere to these standards or the Code's standards.

8.3 Checklists and Handouts

Please visit the City of Henderson Website for all applicable <u>checklists and handouts</u>.

8.4 **Application Forms**

The City of Henderson Community Development & Services Department's applications, forms and checklists, are available for download on the City's website. These forms will need to be submitted in person at the Community Development & Services Department. All forms are revised periodically. Please be certain

to use the most current version when submitting an application to the Community Development & Services Department by downloading documents here.













APPENDIX A: DESIGN GUIDELINE CHECKLIST





