

7.0 Site Element Design Standard

Introduction

Site elements include outdoor furnishings and amenities used throughout the MSP Redevelopment District. All site furnishings should meet the requirements of the Americans with Disabilities Act (ADAAG) and the Uniform Federal Accessible Standards (UFAS). These elements include the following five categories of amenities:

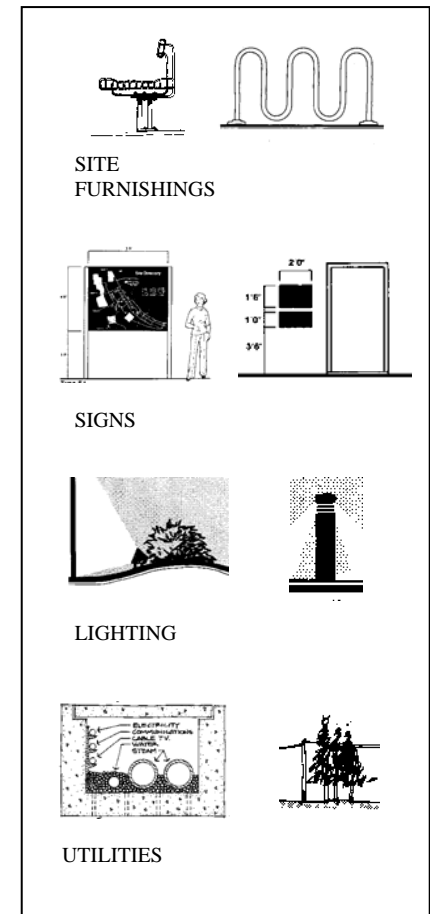
- Site Furnishings
- Signs
- Lighting
- Utilities
- Water Features

The five sub-components help establish the themes within the different visual zones of the MSP Redevelopment District. The specific site elements and amenities should, to the extent possible, reflect the character of the surrounding visual zone. This allows for ease of maintenance and consistency with the surrounding visual zone. The five sub-components and their visual impacts are discussed in detail in this section.

Site Element Objectives

The site elements have been selected to enhance the visual quality of the MSP Redevelopment District while enhancing its sustainability. To this end, site elements should meet the following objectives:

- Provide site elements that are appropriate to their intended function.
- Establish a coordinated system of site elements that provide consistency and continuity throughout the various visual zones while conveying an overall sense of organization.



Site Elements

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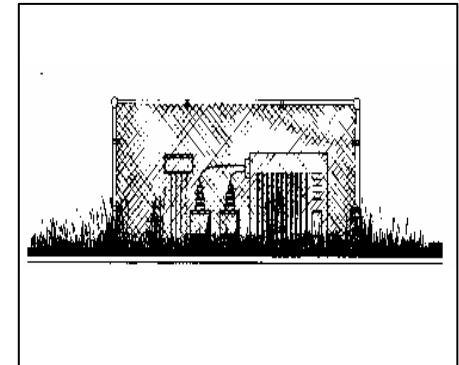
- The design and location of the various site elements should express an image, character, and scale appropriate for its immediate visual zone.
- Use recycled/salvaged materials wherever possible.
- Minimize maintenance and repair through the use of efficient products that are vandal-proof.
- Minimize negative visual and environmental impacts of all utility systems.

Site Furnishings

Site furnishings include all of the outdoor amenities and furnishings found within the MSP Redevelopment District. These outdoor furnishings should be located in coordinated clusters to provide areas of combined amenities, and avoid the haphazard proliferation of furniture elements around the Redevelopment District. All furnishings shall be accessible to, and usable by, persons with disabilities, in accordance with the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and the Uniform Federal Accessibility Standards (UFAS), with the most stringent standards to apply in the event of conflicts.

Site furnishings include the following:

- Seating
- Tables
- Shelters
- Kiosks
- Walls and Fences
- Trash Receptacles
- Dumpsters
- Flagpoles



Negative Visual Impact



Outdoor furnishings should be located in coordinated clusters

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- Movable Planters
- Bicycle Racks
- Tree Grates
- Bollards
- Monuments/Memorials
- Drinking Fountains

Seating

Seating includes benches and walls, as well as tables and movable chairs.

Benches

Benches should be located in areas of high pedestrian use, and arranged to encourage socialization within a pleasant outdoor setting. This includes pedestrian nodes along primary walkways, at major building entryways, courtyards, and at bus stops. Benches should be sited on concrete pads adjacent to walkways. Provide proper clearance around benches, a minimum 2'0" setback from adjacent sidewalks and a minimum of 5'0" between front of bench and any stationary obstacle. Provide appropriate planting treatment for visual definition and seasonal shade.

Bench Design

Visual Zone: Natural Resources Area



Outdoor seating area



Standard bench for the Natural Resources Area Visual Zone.

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Visual Zone: Public Service Campus
Public Assembly Campus
Office Campus



Public Service Campus Bench



MSP Historic Area Bench

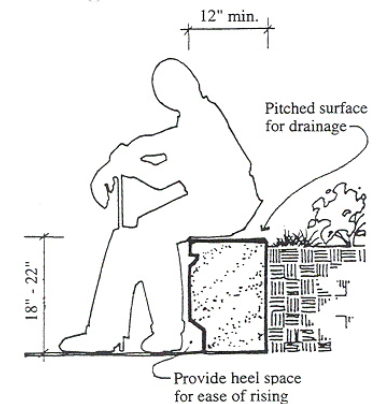
Visual Zone: MSP Historic Area

Seating Walls

Wherever possible, seating should be incorporated into planter boxes or retaining walls, particularly at building entrance areas. Seating walls should be integrated into the overall area design and the pedestrian circulation system. Seating walls should generally be between 18” and 22” high, and 12” to 18” wide and constructed of textured concrete or brick in a manner to complement or match the materials of the adjacent buildings.

Tables

Locate tables together with seating that is oriented to the user needs of socializing, relaxing, or eating in less formal spaces with a pleasant setting and attractive view.



Retaining Wall/Seating

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Small groupings of tables in high visibility areas should be placed within proximity of recreation or food service facilities. These groupings should be located on hard pavement areas adjacent to walkways. Pavement should be constructed of exposed aggregate or broom finish concrete. Incorporate tree plantings and overhead trellis structures within these areas to provide shade and spatial definition.

Table Design

Visual Zone: Natural Resources Area



Natural Resources Area Table

Visual Zone: Public Service Campus
Public Assembly Campus
Office Campus



MSP Historic Area Table



Public Service Campus Table

Visual Zone: MSP Historic Area

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Shelters

Bus shelters should be located at major facilities along the bus routes. Bus stops should relate to major pedestrian walkways, and be placed on concrete pads. Provide a minimum 3'0" clearance between shelters and the edge of walks.

Bus shelters should provide protection from wind, rain and sun with an overhead roof with enclosure on three sides. Side enclosures should be a clear transparent, unbreakable type material to allow for adequate visibility. Bus shelter design typically should be simple and consistent throughout the visual district, matching the existing buildings in terms of materials, scale and detail. Bus shelter design should have similar character as that for kiosks. Bus shelters should have a minimum size of 5' by 8' with a minimum height of 6'-6" from floor to underside of roof. The shelters should include an integral bench, trash receptacle, and ashtray.

Picnic Shelters

Picnic shelters should be strategically located and sized for shared use to discourage the proliferation of small shelters scattered throughout the Natural Resources Area. Picnic shelters can be open on all sides. The minimum size should be 20 feet square with a minimum 8-foot vertical clearance.

Kiosks

Kiosks can be used as information centers at pedestrian nodes within the various visual zones. Provide kiosks only where they are needed on a concrete base adjacent to walkways. Allow a minimum of 3' clearance on all sides. Kiosk design should blend compatibly with other site furnishings and with the architectural character of the visual zone in terms of form, scale and materials. A similar design treatment should be established for kiosks and shelters.



Shelter for all Visual Zones

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Walls and Fences

Walls and fencing should be used to provide visual screening, define pedestrian plaza areas, wind screening, pedestrian and vehicular control, security, and to retain soil. The design of walls and fences should fulfill their function in harmony with the character and appearance of their setting.

Walls

Low walls should be used to define pedestrian court areas and provide informal seating. Screening walls can be used where appropriate to screen building service areas. Walls adjacent to walkways should be free of any projections, such as signs or drain pipes that would pose a hazard to passing pedestrians. Construction of walls should incorporate either brick to match adjacent buildings, with stone or concrete cap, or concrete with a textured finish and stone or concrete cap. Retaining walls may be constructed of brick, native stone, versa-lock modular stone with a light tan finish, or concrete block with a light tan stucco finish, concrete block planters, or other appropriate material. Walls used to screen service areas or trash enclosures should incorporate landscape plantings to help reduce the negative visual impact of these areas.

Fences

Fences should be utilized for screening of service areas and site utilities, particularly dumpsters. Screen fencing should consist of square tubular metal posts and rails with vertical wood fence boards. All fence posts should be securely anchored with concrete footings. All metal posts and framework should be painted standard black and wood fencing should be western cedar. Hardware shall be stainless steel to prevent rust. Chain link fences should be screened with trees and shrubs. The use of chain link fence should be held to a minimum. Where Chain link fencing is required, it should be black vinyl coated.



Retaining Wall Constructed of native stone to be used where project budgets allow.



Ornamental fencing with heavy duty posts.

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Trash Receptacles

Trash containers should be highly visible and accessible for effective litter control. Containers should be located conveniently along walkways, near major pedestrian intersections, near building entrances and near seating and eating areas. Containers should be of a design that is compatible and in harmony with other site furnishings.

Trash Receptacle Design

Visual Zone: Natural Resources Area



Natural Resources Area Trash Receptacle

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Visual Zone: Public Service Campus
Public Assembly Campus
Office Campus



All zones other than the MSP Historic Area.

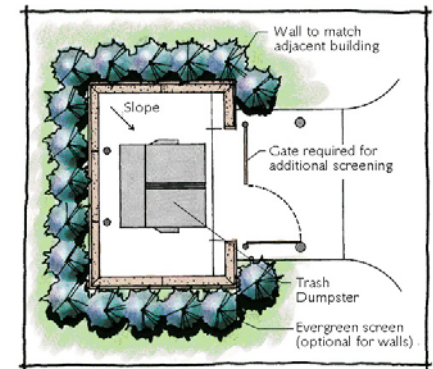


MSP Historic Area Trash Receptacle (black)

Visual Zone: MSP Historic Area

Dumpsters

The location of dumpsters can have a significant visual impact and should be addressed as part of an overall building design and incorporated in site planning. To the greatest extent possible, incorporate dumpster placement into areas screened with walls, fencing, or plant material. Avoid locating dumpsters near major circulation or use areas. Dumpsters should be directly accessible by way of a paved service drive or parking lot with adequate overhead clearance for collection vehicles. Incorporate plantings to buffer the visual impact of screen walls. Walls or fencing should be a maximum 6' in height. Provide a minimum 3' clearance on each side between screen walls and dumpsters to



Enclose Dumpsters with Walls, Fences, or Plantings and Place on Concrete Pad

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allow adequate pedestrian and truck access. All dumpsters should be placed on concrete pads with aprons large enough to encompass the bearing points of the service vehicle.

Flagpoles

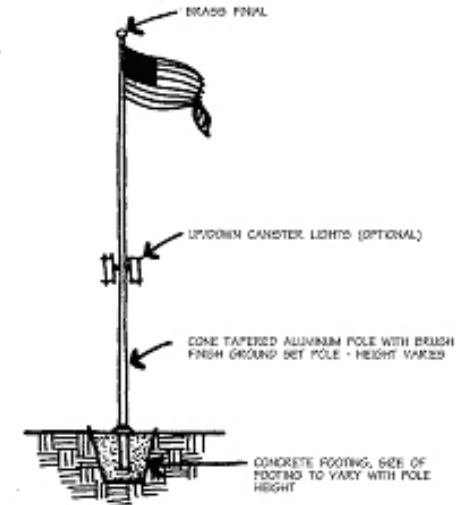
The standard flagpole is a tapered mill finish aluminum, fitted with a gold anodized finish “ball” finial. The mounting detail should be simple with a concrete base flush at grade. A concrete pad should be used when poles are located in lawn areas. In plaza areas, flagpole locations and mounting details should be integrated into the paving pattern. Flagpoles should include lighting and may be accented with planting beds around the base of the flagpole.

Planters

Movable pre-cast concrete planters may be used outside building entrances to provide seasonal color and interest and function as security threat barriers when needed. Planters should be located so they block uninterrupted vehicular access to a building, but not so they excessively impede pedestrian movement. Several planters of various sizes should be grouped together to produce an aesthetically pleasing display.

Planter Sizes and Design

Visual Zone: All Zones



Standard Flagpole



Planter shall have similar detail to historic buildings within the MSP Historic Area.

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Visual Zone: Public Service Campus



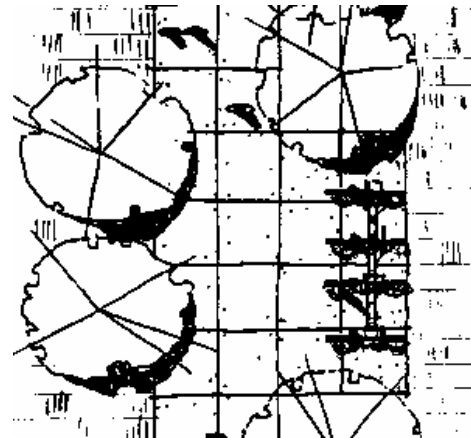
Public Service Campus Planters

Bicycle Racks

Bicycle racks should be provided at key destination locations. They should be located on a concrete surface where they will not impede pedestrian movement or block building entrances.

Bicycle Rack Design

Visual Zone: Public Service Campus
Public Assembly Campus
Office Campus



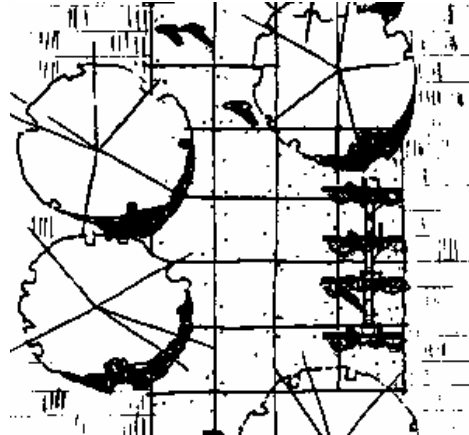
Typical Bicycle Parking Area



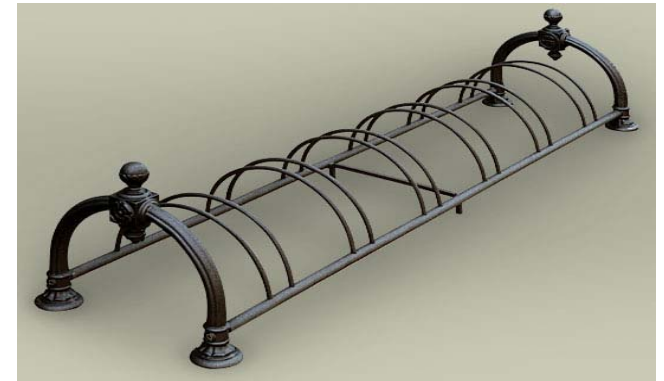
All zones except the Historic Area.
Color: black

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Visual Zone: MSP Historic Area



Typical Bicycle Parking Area



MSP Historic Area Bicycle Rack

Tree Grates

Tree grates should be used when installing trees in large paved areas such as pedestrian plazas and walks. Tree grates and planting pits should be a minimum of 5' x 5'.

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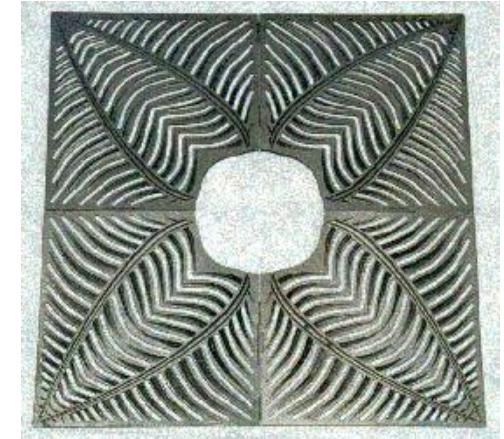
Tree Grates Design

Visual Zone: Natural Resources Area



Natural Resources Tree Grate

Visual Zone: Public Service Campus
Public Assembly Campus
Office Campus



Public Service, Public Assembly & Office
Campus Tree Grate

Visual Zone: MSP Historic Area



MSP Historic Area Tree Grate

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Bollards

Bollards are utilized to separate vehicular and pedestrian traffic, to direct access, or as decorative elements in pedestrian areas.

Bollard Design

Visual Zone: All Areas



Bollards – All Areas

Public Art (outdoor)

The Redevelopment Commission supports the concept of public art within the District. Art form, subject, theme and location are items that will be considered by the Commission as proposed art displays are presented. Criteria that will be used to evaluate public art display include:

- Public Art is different than architectural sculptural at the buildings entry plaza.
- Themes should be founded in the rich historical and cultural aspects of the State, City and District.
- Public art should be strategically located to be viewed from multiple directions, be in scale with the surrounding outdoor space.
- Public art themes should not be commercial or political.
- Public art should be accomplished in good taste that reflects the values of the citizens of Missouri.



Three Angel Musicians by Carl Milles

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Monuments and Memorials

Monuments and memorials should be carefully designed and placed in prominent locations to serve as visual focal points within the District.

Drinking Fountains

Outdoor drinking fountains should not be provided, except to support larger gathering areas if convenient to a potable water supply line. All drinking fountains should meet the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and Uniform Federal Accessibility Standards (UFAS) standards.

Drinking Fountain Design

Visual Zone: All Areas

Visual Zone: MSP Historic Area



The Missouri Veterans Memorial at the Capitol Complex



All Areas Except Historic Area - Drinking Fountain (black)



MSP Historic Area Drinking Fountain

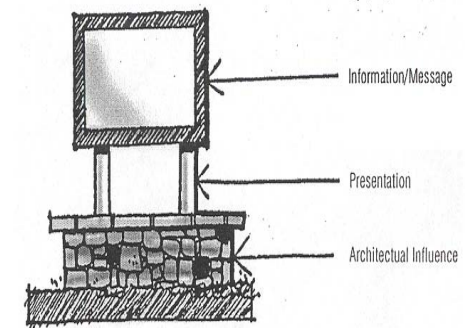
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Signs

Signs are used to visually communicate information. They are highly visible features that should be attractive and compatible with their surroundings. Careful consideration must be given to what a sign says, how it is said, its visual appearance and organization, its location, structural support system, and relation to other signs within the different MSP Redevelopment District Visual Zones. Standardized signage systems facilitate movement, provide a sense of orientation, and reinforce standards of excellence. Signage creates a unifying element throughout the MSP Redevelopment District that ties the visual zones together and builds a reference and continuity that translates into confidence and reassurance when traveling throughout the District.

There are several basic design characteristics that, by serving to convey necessary information clearly and attractively, are an integral part of any successful signage system. An effective strategy provides only needed information, avoids redundancy and eliminates over-signing with resultant clutter and visual confusion. Sign messages must be clear, simple, and easy for motorist to process quickly.

It is essential that the system be applied uniformly and consistently throughout the entire MSP Redevelopment District. The importance of consistent implementation extends from the larger issues of sign type and size down to accurate color continuity and matching typestyles. Sign location is a very important ingredient within the system. Signs must be located at significant decision points and oriented to provide clear sight lines for the intended user. Close coordination of locations with respect to landscaping, utilities, adjacent signage, and various other street design elements is important to ensure long-term maximum visibility.



Signing Language Helps Establish a Signing System



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Sign typestyle, line spacing, color, and size all combine to create the crucial design characteristics of legibility. This aspect of sign design should take into consideration users such as motorists, pedestrians or bicyclists, and the relative travel speed at which each type of user will be traveling when viewing the signs.

Vocabulary-Communications

A common language has been created for establishing a signing system. The different components that create the sign package have been named and referred to within the total signing system. The creation of a "signing language" helps generate a unified connection within sign types that make up a signing family.

- The "signing language" must include:
 - Information/Message
 - Presentation
 - Architectural Influence
 - Graphic Architecture

Visual Hierarchy

The entire signing system must communicate through a range of sign and typestyle sizes the relative importance of the individual activity that the sign identifies. The system should follow a logical progression from a point of origin to the desired destination. A stated method of ranking supports the visual standard of hierarchy within the signing system. Signs can be organized within assigned classes with emphasis on the function and image of the district.



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Within each class, the level of architectural influence evokes the importance of the sign to the MSP Redevelopment District. This is also critical to the idea of progression. The importance of a sign must be presented in its size and level of detail. As individuals move closer to their destination within the MSP Redevelopment District, the scale of the sign becomes progressively smaller and the level of the message more detailed.

Types of Signs

Information / Identification Signs

These are signs that identify entrances to the MSP Redevelopment District, areas within the District, major tenants, buildings and organizational or functional components. They identify a location, and greet the visitor at that location. They should be compatible in scale and character with the architecture and also blend with the natural surroundings.



Identification Sign

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Building Identification Signs

All address shall be assigned so they are compatible with the United States Postal Services automated delivery point sequencing. Place addresses by the front entrance of the building so they can be seen. Place both the street name and address number on the building if both the building number and street address are visible from the street. Buildings without identification signs shall have the address number and street name centered above the main entrance or located to the right side. Where necessary, building numbers will be located at a building corner, if visible from the main street and on building side facing parking lots. The size of the sign should be appropriate for the scale of the building and mounting height.

MSP Redevelopment District Identification Signs

MSP Redevelopment District identification signs consist of two types:

- Main entrance sign identifies the principal visitor entrance.
- Secondary entrance sign identifies entry points with relatively high volumes of visitor traffic.



Building Identification Sign



District Identification Sign

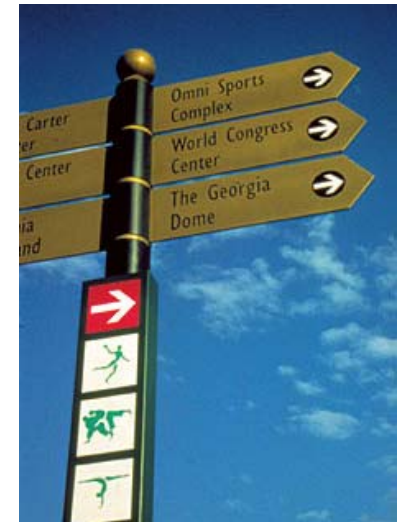
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Wheeled Electrical Signs

Wheeled electrical signs will be prohibited within the MSP Redevelopment District except on a temporary basis. Temporary landscape elements should be used whenever possible in conjunction with these types of signs. No sign of this type will be left in place for longer than six (6) months. After which time, the sign will be removed.

Directional Signs

These signs guide the motorist or pedestrian in, around, and out of the Redevelopment District. The legibility and placement of these signs, as well as the ordering of information, is critical to their effectiveness. These signs should be placed in central locations and at major decision points along circulation routes.



Directional Signs

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Street Signs

Street name identification signs should be designed with the same lettering, color and materials as other information signs.

Regulatory Signs

These signs provide the rules for travel and parking within the various visual zones of the MSP Redevelopment District. They include speed signs, turning and lane use signs, warning signs, parking control signs, etc. Related to these signs are pavement markings and traffic signals.



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Electronic Exterior Signs

All exterior flashing signs, traveling lights, or signs animated by lights of changing degrees of intensity or color are prohibited.

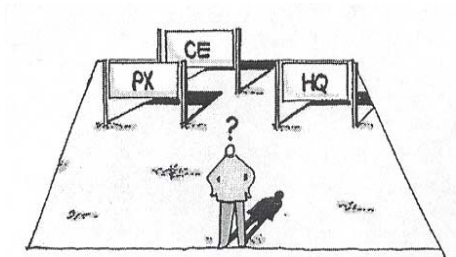
Sign Placement

Placement of signs differs according to the type of sign and the specific site constraints. The following guidelines apply to placement of the majority of signs.

- Do not place more than one sign at any location. Traffic rules are the exception to this rule.
- Place signs in areas free of visual clutter and landscape materials.
- Place signs in locations that allow enough time for the user to read and react to the message.
- Signs should not be placed to block sight lines at intersections.
- Place signs approximately 1.2 meters (4 feet) above ground level to be within 10 degrees the driver's line of vision. Provide proper placement to avoid a hazard to children.

Visual Clutter

Over-signing detracts from a uniform sign system and if left uncontrolled will eventually destroy the integrity of the system. Clutter creates confusion and ineffectiveness. Often motorists and pedestrians are confused by the bombardment of messages that have no relationship to each other, or the communication is on such a minimal level that the sign serves no purpose.



Visual Clutter Causes Confusion

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Location Maps

The location map is an integral element of a comprehensive signage system. The location map display provides information and sense of place to the viewer. The design and construction should be of compatible architectural materials found throughout the district. The location map should contain the following characteristics within the design.

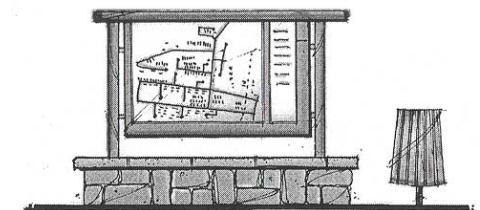
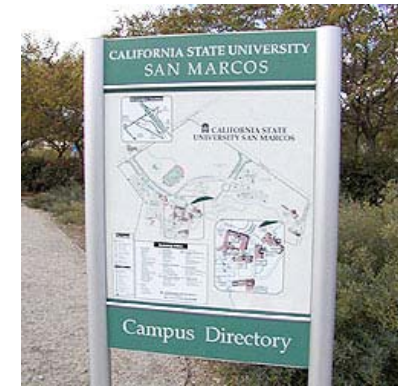
- Plexiglas covered map for protection
- Architectural compatible materials used for the base
- Paved walk-up area
- Litter receptacle
- Provide adjacent parking
- Provide current takeaway maps

Lighting

Lighting is a functional requirement of the MSP Redevelopment District that also impacts the visual environment. The Redevelopment District's lighting system conveys a sense of order and organization. There are five primary types of lighting utilized within the MSP Redevelopment District. They are:

- Roadway Lighting
- Pedestrian Lighting
- Parking Lot Lighting
- Outdoor Architectural Lighting
- Security Lighting

The primary visual problem that exists with exterior lighting in many larger development areas has been the lack of overall coordination of a lighting system. A lighting system



Location Maps Provide a Sense of Place

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provides the proper type of lighting for different lighting requirements and locations. A system is composed of six primary components – fixtures, light height, type of pole, light spacing, type of lamp, and level of intensity of lamp. All lighting should be located or designed to prevent undesirable spillover of light into other areas. Spotlights in particular should be aimed or screened to prevent glare that could blind motorists or pedestrians or the surrounding neighborhood.

Light Fixtures

A lighting fixture is the frame or housing for holding the lamp in position and for protecting it from damage. Light fixtures should be selected and located to maintain the minimum foot-candle requirements for safety and security purposes. Beyond that, aesthetic considerations should take precedence. Lighting fixtures are grouped into the five general categories as defined below.

Cutoff Lighting

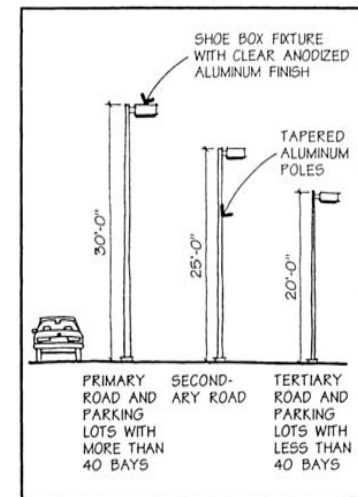
The term cutoff lighting refers to the large fixtures placed on poles and used to illuminate streets and parking lots. Many times, they are designed to cut off light traveling to the top and sides of the fixtures, concentrating it down onto the parking lot. The fixtures reduce the spillover of light where it is not wanted.

Utility Lighting

Refers to simple, inexpensive fixtures that are used in utilitarian or service areas of low visibility.

Bollard Lighting

Refers to fixtures that are mounted on or in a short post to illuminate pedestrian areas. They can also be used as physical barriers between pedestrian and vehicular traffic.



Pole Height Determined by Function

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Spotlighting

Refers to high intensity fixtures that concentrate light into a narrow beam and are used to highlight signs and other important objects. Spotlights should be screened by landscaping or other methods so they are inconspicuous during the day.

Wall-Mounted Lighting

Refers to fixtures attached to the wall of a building or a wall bordering a walkway or stairway.

Light Fixtures and Poles

The light fixture size should be proportional to the intended pole height. Light poles should be consistent and provide uniformity throughout the MSP Redevelopment District. The pole height shall be determined by their intended function.

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Lamp Characteristics

Selection of a lamp involves evaluating its optical control, efficiency, lamp color rendition, lamp life, cost and maintenance. The following is a summary of the characteristics of typical lamp types.

Incandescent

- Superior color rendition
- Inexpensive
- Good optical control
- Short life span
- Lowest efficiency

High Pressure Sodium

- Poor color rendition
- Broad application
- Low maintenance
- Superior optical control
- Superior life span
- Excellent efficiency
- Expensive

Low Pressure Sodium

- Poor color rendition
- Good efficiency
- Superior life span
- Expensive



Pole mounted pedestrian scale

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Fluorescent

- Good color rendition
- Poor optical control
- Good life span
- Good efficiency in mild climates
- Produces glare

Metal Halide

- Superior color rendition
- Superior optical control
- Efficiency better than mercury vapor but poorer than pressure sodium.
- Expensive

Mercury Vapor

- Good color rendition
- Good foliage lighting
- Good life span
- Good efficiency
- Inexpensive



MSP Parkway Lighting

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Light Design Matrices

LAMP	TYPICAL AREAS OF USE											
	Entrances	Primary Roadways	Secondary Roadways	Tertiary Roadways	Primary Walkways/Bikeways	Secondary Walkways/Bikeways	Courtyards	Buildings	Landscaping	Signs & Monuments	Large Parking Lots	Small Parking Lots
Incandescent												
Halogen	•	•					•					
Mercury Vapor		•	•	•	•	•		•				
Florescent												
Metal Halide		•	•	•	•	•	•	•	•			
High Pressure Sodium	•	•								•	•	

LEVEL		20	15	10	10	2	50					
Lux (lx)												
Footcandles (fc)		2	1.4	0.9	0.9	0.25					1	1

HEIGHT												
40' Max		•					•	•	•		•	
25' Max		•			•	•		•	•			•
15' Max			•	•								
Varies		•							•			

FIXTURE	TYPICAL AREAS OF USE											
	Entrances	Primary Roadways	Secondary Roadways	Tertiary Roadways	Primary Walkways/Bikeways	Secondary Walkways/Bikeways	Courtyards	Buildings	Landscaping	Signs & Monuments	Large Parking Lots	Small Parking Lots
Cutoff		•	•	•							•	•
Utility	•											
Bollard												
Spot								•		•		
Wall Mount												

SPACED												
120' Max		•	•	•							•	
90' Max												•
Varies								•		•		

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Utilities

Utility systems provide the basic infrastructure of power, communication, water, and sewer services necessary for the operation of the MSP Redevelopment District. Utilities play a key role in determining the visual quality of the entire Redevelopment District. Their primary impact on the visual quality is the result of the clutter of overhead utility lines and poorly designed storm drainage systems.

The visual and environmental impact of utilities should be minimized whenever possible. Also, the systems should be designed to minimize maintenance and repair. The result is a more sustainable utility system that will promote the entire MSP Redevelopment District. The primary components of the utility system and recommendations for their location and design are included below.

Overhead Transmission Lines

Unightly overhead utilities should be relocated underground wherever possible to reduce negative visual impacts, and reduce maintenance and repair requirements. When underground locations are not possible, the negative visual impacts should be minimized by using the following design techniques:

Overhead Transmission Lines Location

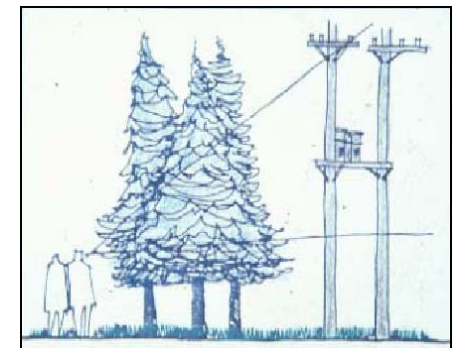
Overhead transmission lines should be aligned along edges of differing land use areas to avoid dividing an area and creating gaps or unusable areas. They should conform to natural landforms that can be utilized to screen them from public view. Hills should be crossed obliquely rather than at right angles. Alignments along hillcrests or steep grades should be avoided.

View Screening

Minimize long views or silhouette views of overhead transmission lines from along roads and other public viewing areas. Avoid the “tunnel effect” of long, straight, uninterrupted



Soften Impact of Overhead Lines



Screen Utilities to Reduce Negative Impact

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views along the alignment by clearing vegetation only within the right-of-way that threatens the overhead lines. Jog the alignment at road crossings and periodically undulate and feature plant materials along the edges of the right-of-way.

Distribution Lines

Power distribution lines should also be located underground to minimize negative visual impact, and reduce maintenance. If overhead, they should be located out of view from main public visibility areas or screened to be as unobtrusive as possible. Avoid alignments of overhead lines along major circulation corridors. Use minor streets, alleyways, rear lot lines, and vegetation or topography that provide screening and minimize visual impact. Minimize the number of poles and pole height, and use poles that blend into their surroundings to reduce visual impact. Poles should also be multi-functional for power, telephone, cable television, street lighting, etc., to reduce visual clutter.

Substations and Transformers

Substations and transformers should be designed and located to minimize their visual impact and be compatible with the character of their setting. Substations are best located in industrial use areas rather than in major public circulation areas. They should be screened from public view by using plant material, berms, and walls.

Water

A water storage tank that has visual strength in its form can be used as a focal point or identifying landmark that can provide a sense of orientation within the MSP Redevelopment District. Fire hydrants should be highly visible and free of any screening. They shall be per City Standard.

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Storm Drainage

Storm drainage systems should be appropriate to the character of development they serve. Storm drainage systems in densely developed areas require curbs, gutters, and underground lines. Storm drainage systems in natural areas can utilize drainage swales and ditches that are contoured to be compatible with the natural landform. Where retention ponds are required, they should be designed to appear as a natural amenity that is part of the natural contour of the land, rather than a square or rectangular hole in the ground. Retention ponds that are designed to be dry most of the time can be utilized for recreational purposes or as open space. In either case, the areas should be designed to conform to the natural contours of the land. Large hard surfaced parking lots should have covered drainage at the entry to prevent water draining into adjacent streets.

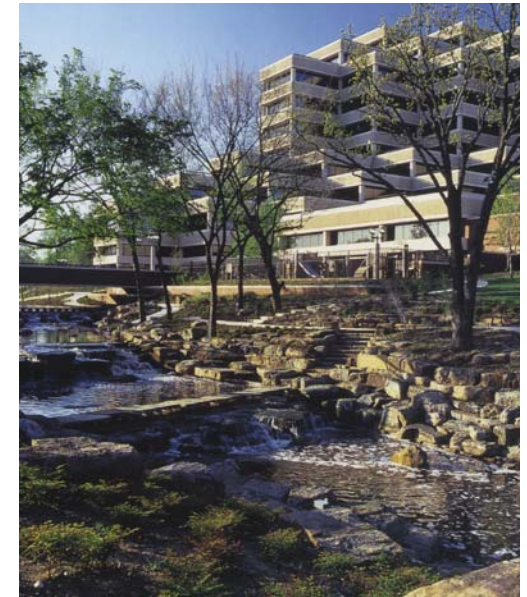
Water Features

The use of water in various forms is encouraged in the MSP Redevelopment District. Water features within the District are envisioned to include the following:

- Ponds
- Lakes
- Streams
- Channels
- Waterfalls
- Fountains

Ponds and Lakes

Ponds and lakes should be designed with a variety of edge conditions including native rocks, and stones, formal paved edges, and naturalized plantings. The design of water features should include informal, naturalistic curves and bends to reveal a series of



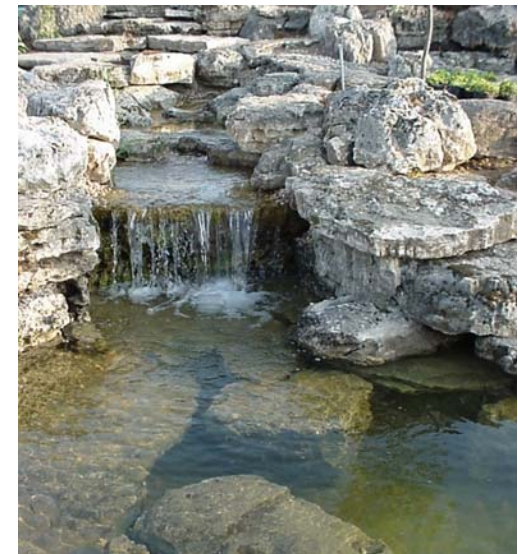
7.0 Site Element Design Standard

interesting views. Promote human interaction with water by using naturalized edge conditions which also serve as gentle barriers to safely control users. Utilize pollution prevention and treatment/recycling to make water features attractive, healthy and safe.



Streams, Channels and Waterfalls

Streams and channels should also be designed with a variety of edge conditions including native rocks, and stones, formal paved edges, and naturalized plantings. The design of streams and channels should reflect the flow and movement of a naturally occurring



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waterway. Create a series of events along the waterway which encourage people to explore and enjoy the water feature. Utilize landscape plantings to also create a series of outdoor spaces which reflect the scale character, and use of the surrounding area. Utilize the audible and cooling properties of water by locating seating and viewing opportunities near these events.

Fountains

Fountains provide attractive focal points in the outdoor environment. They should be interesting, engaging, and unique. Fountains should also be encouraged in landscaped and hardscaped courtyards and plazas. In order to provide the least restrictions on creativity, the minimal standards should be followed:

- Fountains should be supplemented with street furniture including benches, trash receptacles, and seat /planter walls.
- Fountain edges should include lips or rims tall enough to limit unsupervised access by small children.
- Fountain edges should permit informal seating.
- Adequate width and depth to limit over spray and splash should be provided.
- Utilize wind sensors to control wind blown overspray.



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The Wall

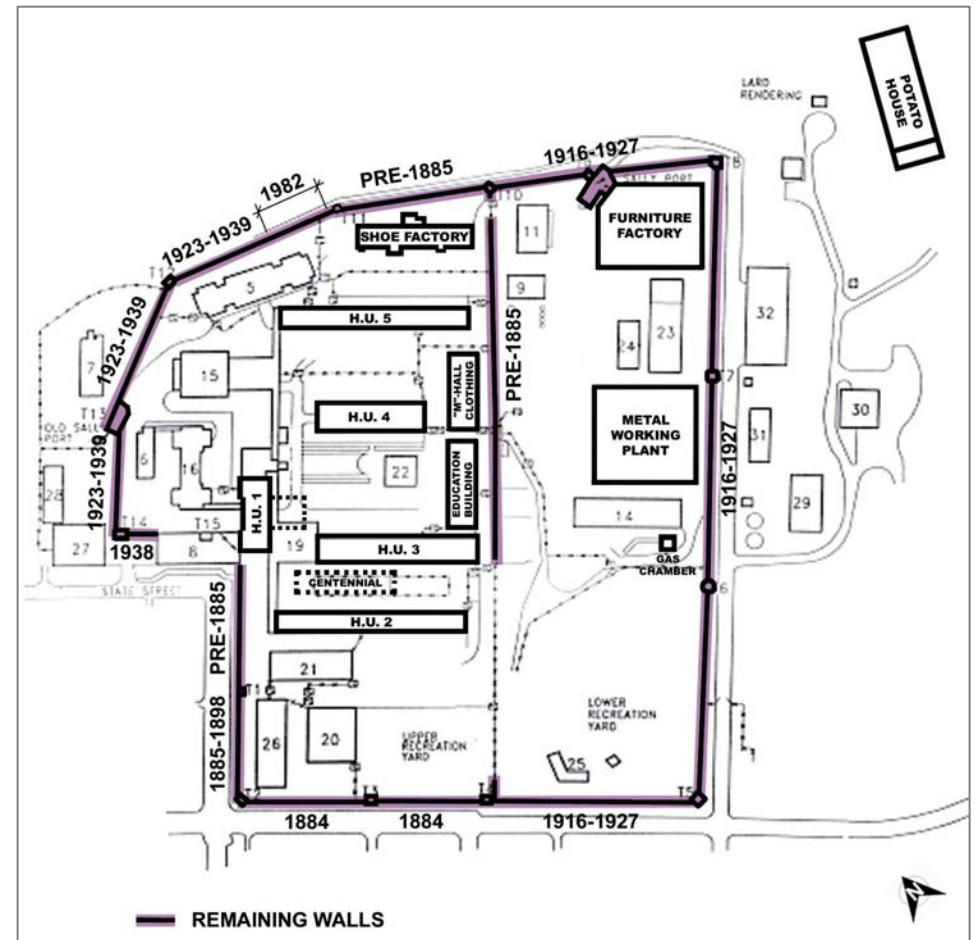
Introduction

Since the beginning of its existence, the MSP site has had one predominant public identity, the wall. It is still the public’s first impression of MSP. Over the years it has captivated the imaginations of thousands of passer-byes, neighbors, visitors, curiosity seekers, prisoners and on and on. The wall has and continues to play an enormous role in formulating opinions, feelings and memories as well as creating spatial definition along its perimeter. It is these characteristics that make the wall a desirable element to incorporate into the future redevelopment of the District.

General Information

The Wall was constructed over a period of time ranging from Pre-1885 to the 1980’s and contains a variety of construction dates, materials and existing conditions. The earliest date is unknown at this time although a stone wall was contracted for construction as early as 1834. The stone walls have been modified over time as the prison was enlarged and security improved. Some stones have early markings by prisoners, quarrying and earlier uses. The MSP Framework Plan incorporates a significant portion of the existing stone wall with minor modifications.

The illustration below identifies the wall location relative to the Framework Plan and the location of the various wall features.



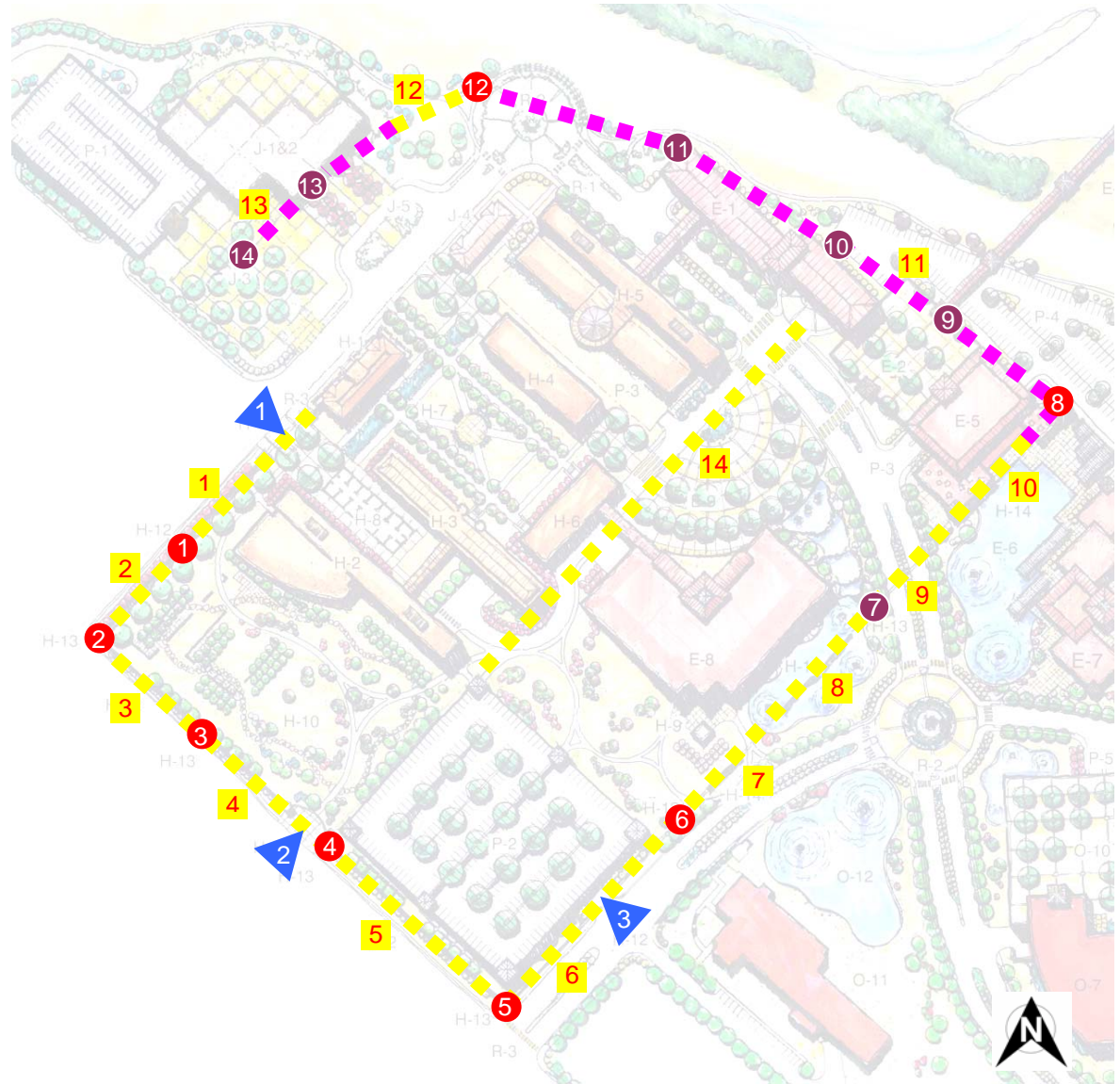
Approximate Dates of Wall Construction

7.0 Site Elements Design Standard

The Wall Plan

Legend Items – See Descriptions

- Wall Openings ▲ 1
- Wall Treatment 1
- Guard Tower to Remain 1
- Guard Tower Removed 7
- Wall to Remain
- Wall Removed



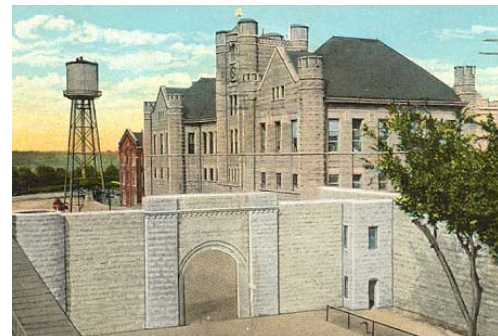
7.0 Site Elements Design Standard

Wall Openings ▲ 1

The MSP Framework Plan identifies 3 separate openings in the existing wall. These wall openings should be clearly defined as different from restored wall sections or wall repairs.

The openings include:

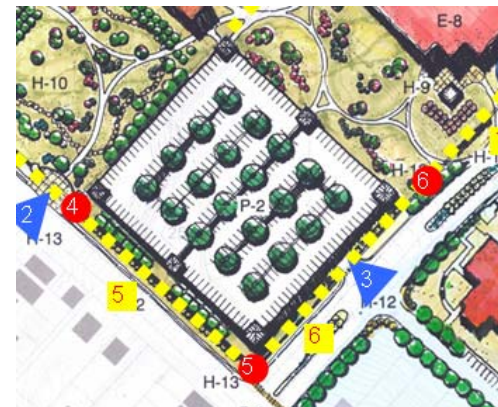
1. Pedestrian access through the wall via a “wagon gate” opening.
2. Pedestrian access through the wall via a “wagon gate” opening, located west of Tower 4.
3. Vehicular access through the wall. The wall opening should be defined with an architectural feature such as a “guard tower” entry portal to define the wall edges.



Wagon Gate



Wall Opening 1



Wall Opening 2

7.0 Site Elements Design Standard



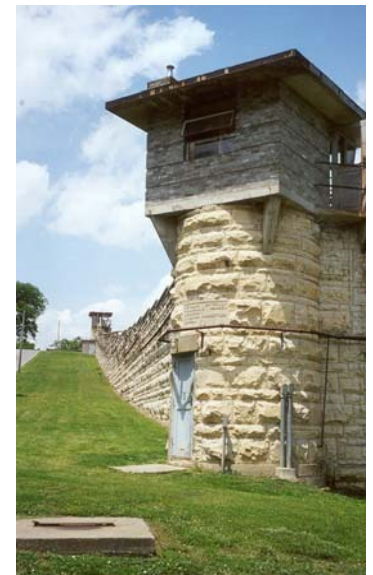
Existing Turret at Tower 2



Tower 4



Tower 5 Then



Tower 5 Now



Tower 8



Tower 10



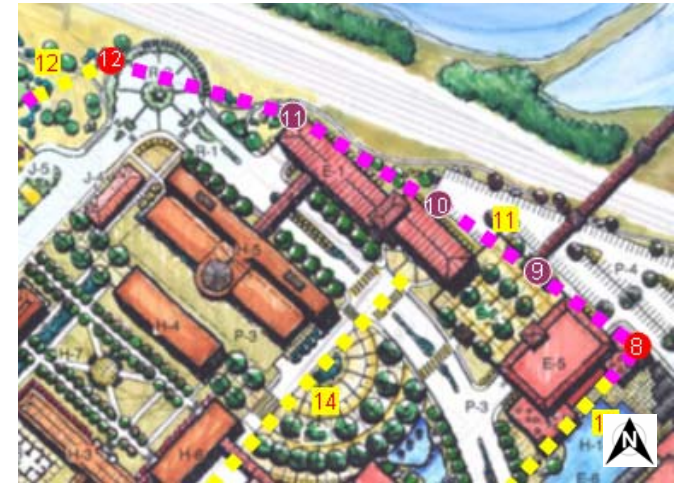
Towers 10, 11 and 12

7.0 Site Elements Design Standard

Guard Tower Treatments (continued)

1 7

7. Tower to be removed. The Tower location will be marked with stone surface treatment and interpretative signage.
8. Tower to be reconstructed. The stone Tower will be square in shape with wing walls and a castle turret constructed of stone.
9. Sally port/train gate to be removed. Location to be marked as a stone ground plane marker and interpretative signage.
10. Tower to be removed. (TBR and replaced with a ground plane stone tower footprint and interpretative signage).
11. Tower to be removed. (TBR and replaced with a ground plane stone tower footprint and interpretative signage).
12. Tower to be reconstructed as a stone square tower similar to its existing form retrofitted with “castle” type turret and wing walls.
13. Old Sally Port to be removed.
14. Tower to be removed. Tower location in plaza marked with stone surface treatment and interpretative signage.



Tower 8



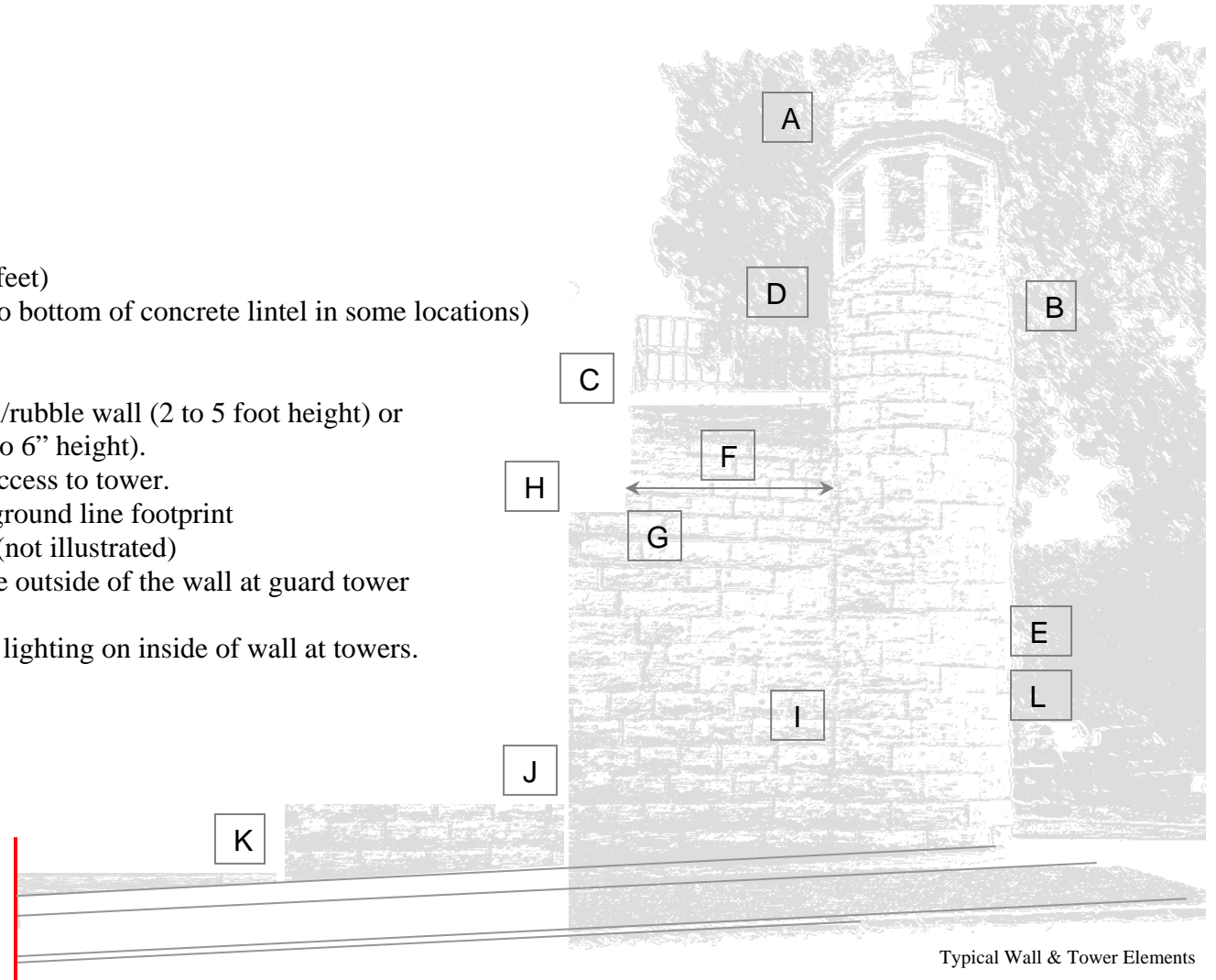
Tower 10



7.0 Site Elements Design Standard

Typical Tower & Wall Elements

- A. Castle Turret Motif
- B. Stone material
- C. Observation Platform
- D. Wrought Iron guardrail
- E. Square or Round Shape
- F. Wing wall (approximately 5 feet)
- G. Step-down from wing wall (to bottom of concrete lintel in some locations)
- H. Top of wall
- I. Level wall courses
- J. Remnant wall/landscape wall/rubble wall (2 to 5 foot height) or
- K. Ground plane design line (0 to 6" height).
- L. Remove ground plane door access to tower.
- M. Use original tower to create ground line footprint for towers that are removed (not illustrated)
- N. Provide accent lighting on the outside of the wall at guard tower (not illustrated)
- O. Provide "search" light theme lighting on inside of wall at towers. (not illustrated)



Typical Wall & Tower Elements

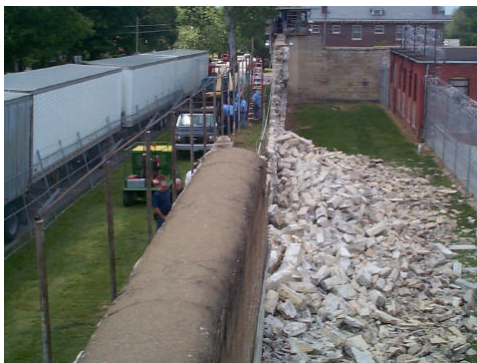
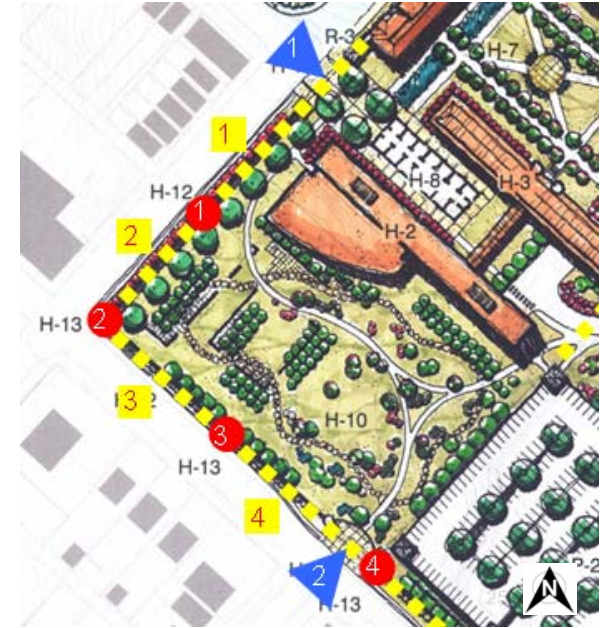
7.0 Site Elements Design Standard

Wall Treatments 1

Each section of the existing wall will be incorporated into the redevelopment plan in a specific and unique manner as described below.

- 1-2 This section of the Wall begins at Housing Unit #1 and progresses in a southerly direction paralleling Lafayette Avenue approximately 288 feet to Tower #1, then southerly again an additional 237 feet to Tower #2. This section of the wall will remain in place at its current height. After removal of the Administration Building, the wall will be rebuilt extending to Housing Unit #1 and a wagon gate pedestrian entry will be established approximately 70 feet south of HU#1.

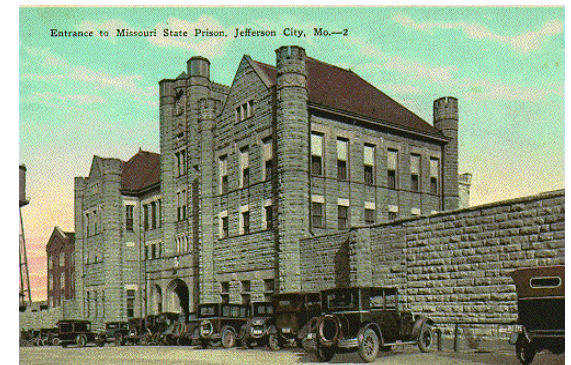
3. Continuing from Tower 2 the Wall runs easterly, paralleling E. Capitol Avenue, approximately 254 feet to Tower 3. The Wall in this section that has toppled will be rebuilt to match the existing wall's material, color and pattern. The existing and rebuilt wall will be decreased in height to just below the existing concrete lintel of the existing wall. This height reduction will extend between Tower 2 and 3.



View of Toppled Wall



Existing Concrete Lintel



Housing Unit #1

7.0 Site Elements Design Standard

4. From Tower 3 the Wall continues easterly an additional 246 feet to Tower 4. A portion of the Wall between Tower 3 and 4 has spalled and may be at risk of toppling. This section of the existing Wall will be rebuilt, matching existing wall material, color and pattern to that of the existing wall. The wall will be reconstructed and decrease in height to just below the existing concrete lintel of the existing wall. A pedestrian wagon gate opening in the wall will be provided immediately west and incorporated into the reconstruction of Tower 4.
5. From Tower 4 the wall extends easterly approximately 411 feet along E. Capitol Avenue to Tower 5 at Chestnut Street. This section of the wall will remain unchanged. The proposed structured parking (P-2) inside the wall will “step-up” the hill between Tower 5 and 4, while striving to keep the top of the structured parking visually concealed behind the stone wall.
6. From Tower 5 the wall turns to the north paralleling Chestnut Street and extends approximately 440 feet to Tower 6. The wall treatment between Tower 5 and 6 consist of creating an opening in the Wall to the lower recreation yard for the purpose of parking access. The wall opening is located approximately 220’ north of Tower 5. In conjunction with the wall opening an entry portal to define the wall edges should be established. The portals should replicate the wall theme and be in scale with the width of the wall opening.



Structured Parking Profile

7.0 Site Elements Design Standard

7-8. From Tower 6 northward, the wall changes dramatically from its existing condition. The wall from Tower 6 to Tower 7 (to be removed TBR) is approximately 460 feet. This section of the wall (7) begins as a typical wing wall north of Tower 6. The wing wall ends and becomes a “design line” or surface treatment of stone material on the ground plane through walkways or a low field stone remnant wall in open lawn areas. This Wall treatment will follow the original wall alignment extending northward toward Tower 7 (TBR). From the “design line” or field stone remnant wall extending from Tower 6, the wall will change again (8) as the alignment enters a proposed pool of water. The wall height will be just above the water line of the pool so that the direction and bearing of the wall are preserved. This portion of the wall may vary in height to accommodate signage and may appear as a field stone remnant wall similar to the landside wall previously described. The wall material will be salvaged stone. The rubble wall through the water will extend to the site of Tower 7. Tower 7 will be removed and replaced with a tower footprint made of stone; the wall will extend out of the pool and connect to the tower footprint near the proposed MSP Parkway.



9-10. The existing wall between Tower 7 (TBR) and Tower 8 (to be rebuilt) is approximately 450 feet in length extending in a northerly direction from Tower 7. From Tower 7, the wall (9) treatment is a ground plane design line, made of stone as the projected wall alignment crosses the proposed MSP Parkway. Once north of the parkway the Wall (10) treatment will be incorporated into the design concept as a stone ground plane design line or low landscape wall line that terminates in the retail urban plaza near existing Tower 8. Tower 8 will be rebuilt as a square stone tower with wing walls and castle turret. Ground plane design line walls will extend from the rebuilt wing walls preserving the bearing of the existing wall that will be removed.

11. From Tower 8 the existing wall turns to the west and extends approximately 250 feet to the old sally port/train gate. From the old sally port the wall continues in a westerly direction 210 feet to Tower 10 (TBR and replaced with a ground plane tower footprint). From Tower 10 the

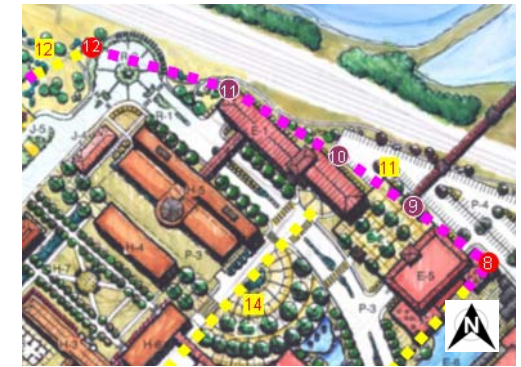


The Wall Along Chestnut Street

7.0 Site Elements Design Standard

existing wall continues in a westerly direction for approximately 308 feet to Tower 11 (TBR and replaced with a ground plane tower footprint). From Tower 11 the wall turns west south west and extends 353 feet to Tower 12. The wall treatment from Tower 8 to Tower 12 will include a combination of a stone design line in the ground plane to a low landscape wall for the purpose of maintaining the alignment and historic demarcation of the historic wall. Between Tower 6 and Tower 12, the prison wall as it is today will no longer exist.

12. From Tower 12 the existing wall turns southwest and extends 323 feet to the sally port. From rebuilt Tower 12 the wall will extend east a short distance to the Lafayette Street roundabout as a stone site retaining wall. From Tower 12 the wall will extend approximately 120 feet to the southwest along the original wall alignment, as a stone site retaining wall. The remaining wall to the sally port will be removed.
13. From the sally port the existing wall extends south 210 feet to Tower 14. The wall will be removed in this area.



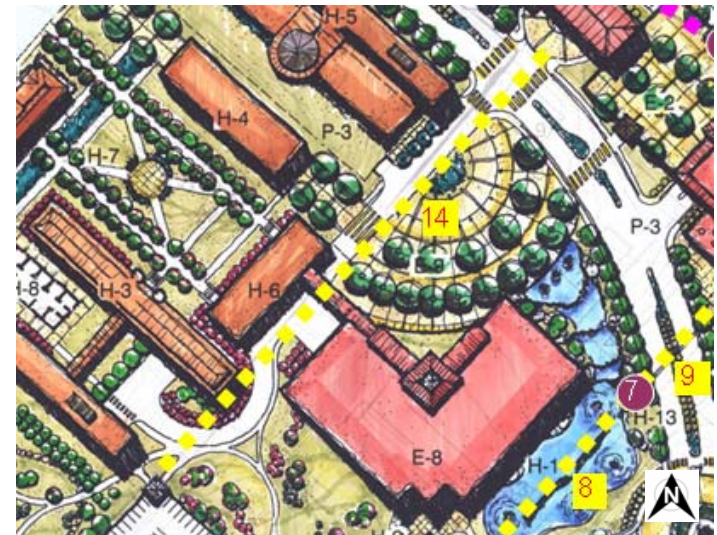
Towers 10, 11 and 12

7.0 Site Elements Design Standard

14. The Pre-1885 wall extends from Tower 10 in a southerly direction for approximately 805 feet. Immediately adjacent to Tower 10 the wall begins as a tower wing wall, dropping down to a curb height wall for a short distance then ending at the edge of the service road pavement behind the Shoe Factory. The wall reappears south of the access drive as a low field stone remnant wall stepping up in height as the grade change



increases. As the wall traverses south, it becomes a significant retaining wall on the low side and a low field stone remnant wall on the high side of the wall. The Pre-1885 wall disappears into the hillside East of Housing Unit #3. Originally the Pre-1885 wall extended all the way south to Tower 4. The change in land uses proposed in the MSP Framework Plan will eliminate the need for the existing wall to remain in place as a site retaining wall. The plan will require extensive fill material to be placed on the low side of the wall, thus eliminating its existence. The plan calls for the wall to be incorporated into the proposed improvements as a ground plane design line made of wall stone that can be viewed all the way from Tower 4, through the MSP Interpretative Garden, through the Public Assembly Facility plaza, across the MSP Parkway terminating in the entry plaza of the proposed hotel. The proposed wall design line will follow the Pre-1885 wall alignment and will be visible and unbroken as it traverses the site.



7.0 Site Elements Design Standard

General Wall and Tower Improvement Guidelines

- Any new wall openings should be clearly defined as different from the wall with careful and consistent detailing.
- Stone from wall/tower demolition will be salvaged and stored on site for future use by the MSP Commission.
- Tower reconstruction will be accomplished with existing stone to match existing stone Tower (base) material, color and pattern. Existing turrets will be removed and rebuilt with stone “castle” motif.
- Wall reconstruction will be accomplished with existing wall stone to match existing adjacent stone wall material, color and pattern.
- Existing pipes, conduits, utility structures, temporary fencing (when safety hazard are eliminated) or other non-appropriate appurtenances will be removed from, or away from the wall.
- Throughout the entire length of the wall, numerous opportunities will be available for interpretative signage. On the walls that remain, artwork (ie painting of Sonny Liston) or markings will be preserved in place. Artwork deemed significant by the MSP Commission, on walls to be removed, will be salvaged.
- Lighting of the wall will consist of :
 - 1) Tower theme lighting on the interior of the wall, characterized as a search light that shines/focuses on features in proximity to the tower.
 - 2) Interior walls will relay on spillover lighting from walkway, parking and building light sources.
 - 3) Lighting the “public” side of the wall will consist of spill over lighting from surrounding improved street lights. Each Tower will receive focus lighting from fixtures mounted on adjacent street light standards.
 - 4) The three wall openings will be further enhanced with ground mounted accent lighting, bollard lighting and walkway lighting. The two pedestrian and one vehicular wall opening are intended to be the brightest points along the public side of the wall.



Concept Lighting at Wall

7.0 Site Elements Design Standard

The Wall Plan

Legend Items – See Descriptions

- Wall Openings ▲ 1
- Wall Treatment ■ 1
- Guard Tower to Remain ● 1
- Guard Tower Removed ● 7
- Wall to Remain ■ ■ ■ ■
- Wall Removed ■ ■ ■ ■

