

#### 6.0 MASTER PLAN

#### **6.1 Vision Statement**

There are always planning and building antecedents. We don't start from zero. And there's inevitably a relationship between where we were, where we are, and where we're going. The essential question for the Rails Yards site is how architecture might communicate both an acknowledgement of precedents -- salient built pieces of history -and simultaneously push forward toward very different purposes, new and adaptively reused buildings, suggesting new directions for the city of Albuquerque's future.

Knowing where we've been makes the story of where we're going more legible, more intelligible. At the Rail Yards site, Albuquerque's built record is largely intact. But historic structures like the Boiler Shop, Machine Shop, Tank Shop, and Flue Shop, though the buildings are extant, no longer fill their original functions. Those functions now belong to Albuquerque's pedigree. They have for a while. The Master Plan objective is to acknowledge that pedigree -- the trains, the story of the opening of the American southwest with new transportation, new machines, new energy, and new opportunities for those who came.

The Master Plan celebrates the facilities that made the trains and made them run.

#### How does a Master Plan manage that celebration?

Not by simply reconstituting those historic buildings [though there's a role for this] whose uses have passed into history, but by giving those buildings a new, vital life, a new role in the burgeoning, evolving community that surrounds the site, and more broadly, an up-dated contemporary definition for urban life in the center of Albuquerque in the first quarter of the 21st century.

How do we acknowledge an old life, and simultaneously forecast a new one? We call our Master Planning strategy for the Albuquerque Rails Yards site "Recollecting Forward."

What the new plan retains in its entirety is the enduring spirit of the rail yards, the energy, the optimism, and the reconstituted exteriors of the primary buildings on the site. We rebuild the missing roundhouse, complete the original organizational logic of the site, but assign new uses, new public and private purposes to both old and new buildings. So what's the roundhouse? Is it the original building? Not quite. Is it a new building? Perhaps, but its plan form re-iterates that of the original structure. The Master Plan intends a hybridization of old and new without insisting on a clear distinction between the two.



In summary, the primary goal of the Master Plan Section 6 of the MDP document is to provide illustrative strategies for an organization of the Rail Yards site that will engender a vibrant, cohesive and viable community of mixed users sharing a common vision. The existing structures to be preserved and adaptively reused are the primary and dominant elements of the site; however they are not sufficient to accommodate the myriad uses identified in the Goals & Policies Section and confirmed through the public comment process. New structures and improvements are required to make the site viable for development. The Master Plan Section 6 proposes guidelines illustrative strategies for the design and integration of such structures so that they both complement the historic structures and provide a unified architectural language across the site. By contrast, Section 8 of the MDP provides the regulatory design standards to guide redevelopment of the site.

The intention of the Master Plan is to preserve the "integrity" of the site and reinvent the "spirit" of the Rail Yards for a modern age. The intention is to "Recollect Forward."

To achieve these aspirations, the Master Plan itself must be a living, working document that is built with sufficient flexibility to accommodate an evolving and unknown future set of conditions. The concepts, recommendations and design features that follow should be understood in this context.

Refer to Section 10.5 for a description on the process for amendments or deviations to the MDP.



RAIL YARDS, AERIAL PHOTO OF CURRENT SITE CONDITIONS



RAIL YARDS, DIAGRAM MASSING OF KEY HISTORIC RESOURCES

# 6.2 Historic Preservation and Adaptive Reuse Design Features

In keeping with the goals and policies stated in Section 5 and with conceptual recommendations stated in Section 6 the aforementioned Vision Statement, the Master Plan seeks to preserve and adaptively reuse the vast majority of historic resources on site. The successful revitalization of these structures represents the cornerstone of the Master Planning effort and is the foundation upon which all the following site organization concepts and design features are based. Refer to Section 8.2 for a complete account of the existing site features and the Historic Preservation and Adaptive Reuse Standards provided to regulate site redevelopment.

Whereas the preceding section addressed recommendationsregarding the existing site resources, By contast, the following Section 6.3 provides design concepts and recommendations for new infill development. The following concepts and diagrammatic sketches represent basic ideas about how to organize the site rather than specific architectural solutions per se. Likewise, images from other locales are used to convey a design *sensibility* rather than a literal design response.

## 6.2.1 Rebuild Iconic Structures

Concept: Important iconic elements of the Rail Yards that had previously been demolished should be rebuilt in order to re-establish the original organization of the site.

As the first organization strategy for site infill development, the Master Plan advises the rebuilding of the Roundhouse and Smokestack features as important elements to the original conception of the site. The reconstruction will be on the original footprint, will have the same volume, but will not be identical to the original structure. As such, it is intended as a symbolic reconstruction permissive of a modern interpretation.



RAIL YARDS, HISTORIC ROUNDHOUSE AND SMOKESTACK



View from atop SMOKESTACK

SMOKESTACK



HISTORIC FEATURES TO BE PRESERVED AND ADAPTIVELY REUSED REBUILD ICONIC STRUCTURES



Figure 5: Rebuild Iconic Structures Diagram

#### 6.<del>32.12</del> Paseo

Concept: The Rail Yards should be unified into a cohesive and interconnected whole.

The Paseo is the tissue that unifies the site plan, and integrates the Rail Yards with the city. It is the primary planning component for the new Rail Yards project.

The Paseo is a concept for infill development. It is a low, single volume, building, ~14ft in height, with a flat roof that doubles as a public plaza. There are 2 Paseo buildings proposed; North and South, located on the only large areas available for development that do not impact any historic resources recommended for Preservation. Due to their low profile, the Paseo buildings allow for additional buildable area to be created without impacting views to and from the historic structures; they are auxiliary buildings that will increase the technical functionality of the site that might otherwise be limited by use of the historic structures alone. The plan shape of the Paseo buildings is determined by using historic rail lines or fire road. Public access to the Paseo roof decks would be provided via generous stairways and landscaped mounds along 1st/2nd street sidewalks.

The Paseo's conceptual purpose is to inter-connect events and event options on the site, to link existing buildings with new buildings, to facilitate pedestrian movement north/south and east/west on the site and to encourage pedestrian engagement of the myriad new opportunities the Rail Yards Project will provide.



📕 PASEO

NOTE: ALL DIAGRAMS ARE CONCEPTUAL





Piazza del Campo, Siena, Italy

Las Ramblas, Barcelona, Spain





# Figure 6: Conceptual Paseo Building Diagram

#### 6.32.23 Subterranean Parking

Concept: The Rail Yards should be free of visible parking.

The Paseo concept and the subterranean parking concept go hand in hand. Given the historic nature of the site, visible surface parking should be avoided and instead should be contained in a below grade structure.

Given the increased cost of subterranean parking and the relative high water table, a one-level only structure is proposed which will result in a site that will be considered underparked by current City parking standards. The provision of parking for the Rail Yards site, however, must seek a balance between satisfying market needs on the one hand and minimizing traffic impacts on the other. Deficiencies in on-site parking should be mitigated by use and encouragement of alternative means of transportation.

The Rail Yards Master Plan addresses this issue by locating subterranean parking at the North and South ends of the site immediately below the proposed Paseo buildings, leaving the center portion of the site focused on pedestrian, bicycle and transit access. As stated in 6.3.1, the paseo buildings are located on the only 2 portions of the site that have open areas sufficient to construct an efficient parking garage. Building the parking garage and the Paseo buildings together will result in an economy of cost and schedule.

The specific location for vehicular ingress/egress to the parking structures should be determined by the ultimate configuration of the Paseo Buildings and the use requirements thereof. Access points should be adequately spaced in order to allow proper vehicle queuing and to minimize traffic impacts to the Barelas residential community immediately to the West.







Historic Rail Yards Entrance

Rail Yards Entrance Today

#### DRAWING UPDATED TO INCLUDE SECOND ACCESS LOCATION TO NORTH GARAGE.



## Figure 7: Conceptual Below Grade Parking Diagram

#### 6.32.34 Acoustic Mounds

Concept: The Rail Yards should have an inviting edge that balances the needs of future users with that of the neighboring communities.

The Acoustic Mounds is one possible concept for how to treat the edges of the Rail Yards site. The Historic edge was once bounded by a wooden fence that limited site access to Rail Yards employees and visitors only. By contrast, the Master Plan intends the site grounds to be completely open for public access; however, there remains a need for limited visual and acoustic privacy between potentially disparate and incompatible uses.

The Acoustic Mounds provide a flexible, 'soft' edge that can be sculpted to achieve desired levels of privacy without creating the effect of a barrier and without impacting views to and from the site.

The Mounds unify the site by use of a common visual language (earthwork, landscape) that does not belong to a 'style' of architecture that might conflict with the historic vocabulary of the buildings.

The Mounds are publicly accessible; they can be walked on, sat upon, hollowed out and inhabited for both public uses (eg. retail) and infrastructural uses (eg. screening of mechanical equipment).

The Mounds are positioned just inside the east and west property lines of the site, and run essentially north/south, ascending on the west from the sidewalk perimeter and on the east from the retaining wall adjacent the active rail lines to the Mounds' apex, then down to tree-lined pedestrian walks (Meandering Walk) running north/south at grade, roughly paralelling the Mounds.

By virtue of their shape and positioning, the Mounds organize the nearly half mile long frontage of the Rail Yards site by providing directed points of entry and egress.





Etowah Mounds, Dahlonega, GA



Lascaux Caves, Dordonne Valley, France



#### 6.32.45 Connectors

Concept: The Rail Yards should be stitched into the fabric of the community.

Primary points of access are located by extending the existing City street grid onto the project site. At each location where east/west running streets terminate along the project north/south boundary, a Connector is created. The Connector takes many forms depending on the specific site condition, as follows:

The Perpendicular Walk is the primary east-west Connector that extends Santa Fe Avenue onto and through the Rail Yards site, adjacent the historic Transfer Table, and on into the South Broadway neighborhood via a proposed pedestrian bridge over the active rail lines. Conversely, the Santa Fe extension also provides a pedestrian connection west, from South Broadway through the site to historic Route 66 along 4th street in the Barelas neighborhood. The Perpendicular Walk provides an operational synopsis of the area's history; trains, rail yards, cars, diverse sociologies; unified along a single axis. It is the conceptual heart of the project.

The proposed Transit Plaza is a north-south Connector that runs between Santa Fe and Pacific Avenues along the western edge of the site fronting the Machine Shop.

The Fire House Plaza is a Connector created at the intersection of Atlantic Avenue and 2nd Street that provides Public Open space surrounding the historic Fire House building. This Connector is likely to increase in size due to the abandonment of 1st Street between Atlantic and Hazeldine Avenues.

The proposed Cromwell Avenue at-grade pedestrian rail crossing is a second Connector for the South Broadway community that will align with the proposed rebuilt Smokestack and connect to the rebuilt Round House.







Spanish Steps, Rome, Italy

Ponte Vecchio, Florence, Italy



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#### 6.32.56 Public Open Space

Concept: The Rail Yards shall provide ample and varied oppurtunites for public open space.

The Master Plan provides for a significant amount of public open space in a variety of different spatial configurations; broad and open public paseos, tree-lined meandering paths, vertical courtyards, long pedestrian promenades, circular amphitheater, etc. The concept is to offer different ways of interacting with the site that yields flexibility in public programming.

Visitors should be able to traverse the site freely in order to view the various historic structures and understand their original purposes and interrelationship.

Public spaces are connected by two North-South walks; the Edge Walk that follows along the 1st and 2nd street sidewalk and the tree-lined Meandering Walk that follows the space created between the Paseo Building and Acoustic Mound.

In addition to the Paseo and Perpendicular Walk spaces previously referenced, additional public spaces are as follows;

Quadrangle: A new event space formed by the conjunction of the Flue Shop on the east, the Boiler Shop on the south and the Tank Shop on the west with the new Paseo on the north. The Quad opens to the Paseo and center city with a large public stair/seating which descends south from the Paseo Level to the Quad floor.

Machine Shop Plaza: Extending south from the Machine Shop and useable for exhibits and/or open air markets. The current plan proposes to re-use the Bridge Crane apparatus attached to a steel frame that extends across the south elevation of the building. The crane and steel frame support a retractable Glass Canopy.

Turntable Amphitheater Commons: South of the Machine Shop, the new Roundhouse intersects with Paseo South to form an enclosed and partly covered performance courtyard, with ramps and stairs to the public Amphitheater seating and Turntable stage area.







Bosque, Albuquerque, NM

Public Arcade, Milan, Italy



# Figure 10: Conceptual Public Open Space Diagram

## 6.43 Sustainability

Concept: The Rail Yards should be a model for sustainable design practices.

New construction should be designed to meet or exceed U.S. Green Building Council (USGBC) standards and where possible, the retrofit of the existing structures should accommodate green building features as well. Specific concepts for the introduction of sustainable design features and practices into the Master Plan are as follows;

#### 6.43.1 On-site Power Generation (Photovoltaic Panels)

The Master Plan recommends that all south facing roofs of existing historic structures be retrofitted to include arrays of Photovoltaic (PV) panels capable of generating on-site electricity. As evidenced by the growing PV market in the area, Albuquerque has an ideal climate for PV generation due to a high number of clear sunny days coupled with a lack of extreme summer temperatures found in other desert type communities at lower elevations. PV generated electricity is valuable because it is most efficient during times of peak electricity demand (A/C requirements during hot summer days) thus shaving peak loads. Careful attention will be required to ensure the panels are well integrated into the roof lines. Finally, electrical vehicle charging stations located in the subterranean garages may be able to utilize on-site electrical generation.





DAYLIGHTING OPPORTUNITIES (COURTYARDS) GREEN ROOFS (ACOUSTIC MOUNDS) POWER GENERATION (PV PANELS) WATER COLLECTION (CISTERNS)



Cantalloc Aqueducts, Nazca, Peru



Aceauia, White Mountains, NM



COURTYARDS. Daylighting defined by the path of the sun



Anasazi Kiva, Mesa Verde, CO



# Figure 11: Conceptual Sustainability Features Diagram

#### 6.43.2 Water Conservation

Given Albuquerque's low precipitation of approximately 9" of rain per year, it is critical that water conservation be a major consideration in all future development. Accordingly, the Master Plan recommends the collection and retention of on-site water into cisterns that may be used for future irrigation of drought tolerant landscaping atop the Acoustic Mounds and along the tree-lined Meandering Walks. Given a total site area of 27.3 acres, there is potential for a large catchment area. The cisterns themselves may become design elements for the project thereby reinforcing the importance of water conservation. In addition to catchment, all plumbing fixtures shall utilize the least amount of water allowable by code and where permitted, the collection and use of grey water for irrigation purposes shall be encouraged.

In order to facilitate collection of roof water and to provide cover over the Perpendicular Walk, a design feature called the "Glass Canopy" is proposed between the Machine and Boiler Shop buildings. The Canopy is an all-glass canopy supported by a light weight cable truss that will collect and distribute water to a proposed cistern and surrounding pool located in the trough of the Transfer Table.

#### 6.43.3 Energy Efficient Construction/Green Roofs

All new construction should be designed to minimize heat loss/gain through building envelopes. Note that this is especially pertinent with regard to the rehabilitation of the historic structures which are largely clad in small single-pane glass windows set into steel window frames. In such cases, the requirements for energy conservation will need to be balanced with the historic preservation aspects of the project. For example, it may be necessary to create new building envelopes within the historic envelope thereby avoiding its poor thermal performance.

Along the lines of envelope performance, the Master Plan recommends the use of Green Roof structures over the retail components along 2nd Street. A Green Roof is essentially a wellinsulated roof that contains a vegetated outer layer that outperforms traditional roofing in terms of its ability to absorb and slowly re-radiate heat energy without creating the "Heat Island" effect found in many urban areas. Careful attention will be required to select plantings that are well suited to the particular Albuquerque climate.

#### 6.43.4 Natural light & Ventilation

During the time of their original construction, the historic structures of the Rail Yards were considered pioneering achievements in the use of natural light and ventilation to provide superior working conditions. In keeping with this tradition, all new construction should be designed to maximize availability of natural light and ventilation in order to reduce power consumption and increase the quality of the working environment. The Master Plan recommends the use of Courtyards to provide natural light and ventilation to spaces that would otherwise be too deep to achieve from perimeter access alone. The proposed Paseo buildings will be designed with perimeter glazing and operable windows.

#### 6.43.5 Alternative Transportation

The Master Plan is organized to prioritize pedestrian, bicycle, and transit connections to the project. Vehicle access to below grade parking structures is purposely relegated away from the center of the site such that these other forms of transportation can be unimpeded. Accordingly, a large transit plaza is proposed along 2nd Street immediately adjacent to the Perpendicular Walk between the historic Machine and Boiler Shop buildings, and may contain bike lockers, bike racks, benches, and other pedestrian amenities. Finally, in order to further encourage the use of alternative forms of transportation, the Master Plan recommends decreased parking requirements for anticipated uses and will encourage ride sharing.



Figure 12: Conceptual Water Conservation Diagram

## 6.54 Parcel / Land Use Recommendations

Given the large size of the Rail Yards site (27.3 acres), the complexities involved in adaptively re-using the exsiting historic buildings, and the resulting need to construct the project in a phased approach, the Master Plan recommends the creation of 10 distinct parcels that each will have their own design features and land use recommendations. The resulting parcelization will enable distinct parcels to be developed and permitted according to the schedule requirements of a particular tenant need, thereby making the process more nimble and responsive to market conditions. Parcelization will also allow distinct use types, (eg. Workforce Housing or Public Open Space), to be broken off from the larger project in order to be executed by a different development entity as may be desired.

# 6.65 Land Use Characterizations

Creating a vibrant and successful mixed-use community on the Rail Yards site will in large measure depend on the type, location and organization of uses on the site. Accordingly, the Master Plan provides recommendations for preferred land use types and locations based on a thorough analysis of project goals, site context, and community input. Land use designations are not intended to restrict the existing approved land uses of the underlying SU-HLS zone.

Based on the Parcel organization described above, the site can be understood to be divided into 4 basic use zones; Business, Cultural, Retail, and Housing. In addition, each of these use groups contains a significant amount of open space available for public use. The following descriptions provide a qualitative summary of each of the primary use categories:



At its peak of operation, the Rail Yards once provided jobs to nearly 25% of the residents of the City of Albuquerque; it was the principle economic engine for the region. The development model for the Rail Yards MDP is likewise founded on a jobs-centered approach that intends to create a robust innovation-based and creative office business community. This use designation will be largely housed within the historic structures but will also extend Northerly toward the downtown City Center, providing a connection between the two job centers. A successful business tenancy will be the economic engine that will provide for the costly adaptive reuse and ongoing maintenance of the historic structures, thereby preserving them for future generations.

Specific Business/Professional use types may include but are not limited to the following; Creative Office, Professional Services, Training/Upper Level Education, Research and Development, Media, and Light Manufacturing.

# CULTURAL

The entirety of the Rail Yards site is understood as a Cultural Center of major significance to the City, State, and Country. It is the intent of the MDP that visitors to the site will be able to traverse the grounds in their entirety in a way that was never previously afforded due to the walled perimeter required by its heavy industrial past.







Shukhov Tower, Moscow, Russia

Samitaur Tower, Culver City, CA

ATSF 2926 Restoration, Albuquerque, NM



CULTURAL BUSINESS BUSINESS / R&D HOUSING / CULTURAL RETAIL/ OPEN SPACE Dedicated Cultural Uses will be centered about the historic Turntable and rebuilt Roundhouse at the South of the site with the Machine Shop and Storehouse buildings as backdrops. The South portion of the site retains the greatest physical connection to the functioning BNSF Rail Lines and will therefore tie the dedicated Cultural facilities directly to the history of the Site.

Specific Cultural use types may include but are not limited to the following; Museums (including WHEELS), Performing Arts, community centers, Accessory retail facilities, and public gathering spaces. Museum functions may include such work as the restoration of historic artifacts such as the work currently underway by the New Mexico Steam Locomotive & Railroad Historical Society to fully restore the Baldwin 4-8-4 Steam Locomotive, AT&SF 2926.

# RETAIL

Primary dedicated retail zones occur along the western periphery of the site along 2nd Street and along the proposed Railroad Bridge that will connect the site to the South Broadway community. The scale of the proposed retail is commensurate with that along 4th Street in the Barelas community and will be designed to complement rather than compete with neighborhood businesses.

Specific retail use types may include but are not limited to the following; Restaurant, café, growers markets, artisan shops, business services, galleries, and hospitality/boutique hotel uses.



Cliff Palace, Mesa Verde, CO

Taos Pueblo, NM

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#### NOTE:

Design Features shown are for illustrative purposes only and are not regulatory features of the MDP document.

# TABLEAU 21: Land Use Diagram

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# WORKFORCE HOUSING

The proposed Workforce Housing use is located at the southwest corner of the site adjacent to 2nd Street and bordering the proposed Cultural zones to the north and east which are understood as compatible uses. Given the minimum requirement of 30 units, care should be taken to ensure that the scale of the proposed Housing is commensurate with that contained in the adjacent residential neighborhoods.

# 6.76 Parcel Characterizations

Parcel recommendations and qualitative characterizations of each of the proposed 10 parcels are as follows;

# Parcel 1

Parcel 1 is intended as the cultural center of the Rail Yards site and contains uses of cultural significance to the community such as museums, performing arts venues, community centers, accessory retail functions and public gathering spaces. Parcel 1 is conceptually centered about the historic Turntable and contains the proposed rebuilt iconic structure of the Roundhouse which is connected with the proposed Paseo South building. The historic Turntable remains in active operation with adjacent landowner BNSF retaining an easement for its use. The continued operation of the Turntable and the rail tracks providing access are seen as amenities to Parcel 1 that should be incorporated into the design of future cultural facilities. Any future use (e.g. railcar restoration) that requires rail access to the existing BNSF Railway will utilize the rail tracks contained on Parcel 1. The historic Turntable must remain in active operation since adjacent landowner BNSF retains an easement for its use. The design of future cultural facilities shall not limit or preclude access to or use of the Turntable.

Any future use that requires access to the existing railway, such as the WHEELS Museum or a rail equipment maintenance facility, shall have access to the tracks and Turntable contained on Parcel 1. As such, land between the Turntable and the Storehouse is an appropriate area for future expansion of the WHEELS Museum.

Parcel 1 also contains a series of smaller historic buildings such as the Welding and Babbit Shops and the South Washroom facility that are intended to be adaptively re-used and included as part of the cultural life of the project. Together with Parcel 4, the area containing these structures is characterized in the Master Plan as part of the Machine Shop Plaza.

Since Parcel 1 contains the largest portion of undeveloped land within the larger Rail Yards site, the Master Plan recommends one level of subterranean parking to be constructed coincident with development of above-grade cultural facilities. Given the lack of parking opportunities across the balance of the site, it is anticipated that parking created on Parcel 1 will likely serve parking needs for adjacent parcel use requirements (e.g. Parcels 3, 4 and 5). Access to the parking facility from 2nd Street would be provided by an easement across Parcel 3 as shown on the Parcel plan.

# Parcel 2

Parcel 2 is the proposed site for the 30 units of Workhouse Housing. The proposed Housing structures are positioned informally across the top of the southwestern most Acoustic Mound leaving substantial portions of the landscape for use by inhabitants, adjoining neighbors and visitors.

It is recommended that parking for Parcel 2 be accommodated similarly to Parcel 1 in a subterranean garage with separate and dedicated access from 2nd Street. Parcel 2 contains a major portion of the historic cast-in-place concrete Platform structure that was used



# Figure 13 : Conceptual Parcelization Diagram

as the primary loading dock facility for the Rail Yards. As discussed in the Master Plan preservation recommendations, in order to accommodate the subterranean garage, the Platform may have to be partially removed and reconstructed.

# Parcel 3

Parcel 3 contains the historic Storehouse structure and is the current home of the WHEELS warehouse. Similar to Parcel 1, Parcel 3 supports culturally significant uses and, due to its significant frontage along 2nd Street, will act as the public face of the onsite cultural facilities to the larger community. Parking for Parcel 3 users will be accommodated within the subterranean structure on Parcel 1 with an easement provided across Parcel 3 for access. With respect to the WHEELS Museum, the Master Development Plan calls for the nearterm retention in their current location in the Storehouse while they build up patronage, their collection and funding commitments for ultimate construction of a new facility located within the cultural zones of the site. Consistent with the policies set forth by the Master Plan, it is considered premature to designate the actual design or boundaries of a specific user's facility within the proposed Master Plan document. Subject to the terms of its lease with the City of Albuquerque as it may be amended, the WHEELS Museum will continue to operate in the Storehouse and, as described in Parcel 1, will be provided with the opportunity to expand to the east.

In the future, should it be determined that additional Housing is desired on the site, the Master Plan recommends that such housing be located/integrated within an adaptively re-used Storehouse Buildingthereby continuing the housing use north from Parcel 2. Housingon this parcel may be live-work in orientation to better transition toadjacent Machine Shop uses. Parcel 3 is uniquely situated to contain cultural facilities connected to those anticipated to be developed in Parcel 1 or, alternatively, be adaptively reused as housing to relate to existing development across 2nd Street and the Workforce Housing anticipated to be developed on Parcel 2 to the south. Should the WHEELS Museum in the future move its operations, the Storehouse is an appropriate location for adaptive reuse for other cultural uses or housing that may include live-work.

Parking for Parcel 3 users will be accommodated within the subterranean structure on Parcel 1 with an easement provided across Parcel 3 for access.

# Parcel 4

Parcel 4 is primarily a public open space parcel that includes the area immediately south of the Machine Shop contained beneath the historic Bridge Crane and its steel support colonnade. At the eastern edge adjoining the Rail Line, Parcel 4 widens to include the footprint of the original Powerhouse recommended for Presentation and the original Smokestack recommended for Reconstruction.

Parcel 4 is intended as a major public assembly area supporting a covered outdoor Farmers/Artisan Market and Public Events Venue under the Bridge Crane and an Educational Center located adjacent the proposed Smokestack. Such a location on the South side of the Machine shop will have maximum daytime and nighttime visibility from drivers along the Avenida Cesar Chavez overpass and will provide direct access to the Barelas neighborhood through the entry portal that once served as the primary entrance to the historic Rail Yards site. The proposed location will draw people onto the site, provide potential visitors to the existing WHEELS warehouse on Parcel 3, and will provide easy vehicular access for deliveries from 2nd Street to support the Public Market concept. Locating the market adjacent the historic site entrance will also serve to reacquaint Albuquerque residents with the site. Similar to Parcels 1 and 3, Parcel 4 is understood as a community oriented parcel that supports and complements the cultural uses on the site.

# Parcel 5

The boundary of Parcel 5 coincides with the footprint of the historic Machine Shop building and is connected to the 2nd Street public right-of-way through the two adjacent public open space parcels immediately to the north and south of the building. The Machine Shop building is the largest and most significant structure at the Rail Yards site and once revitalized is envisioned to anchor the innovation based and creative office tenancies that will drive successful development of the project. A pedestrian connection running north-south through Parcel 5 is proposed to allow the public to experience the interior volume of the Machine Shop. The connection is currently shown at the east/west center of the Machine Shop, however its ultimate location may be adjusted to accommodate other site constraints and considerations. Parking for Parcel 5 will be accommodated in the proposed structure contained on Parcel 1, and like all such offsite parking in the proposed development, will require some sort of covenant or easement agreement between parcels that will ensure availability of longterm parking.

#### Parcel 6

Parcel 6 is a primary open space parcel known as the Perpendicular Walk that is bounded by the historic Machine Shop to the south and the historic Boiler Shop and Blacksmiths Shops to the north. It is the heart of the project. Parcel 6 contains the historic Transfer Table structure that at one time functioned to transfer locomotive assemblies under repair laterally east-west across the site. The Transfer Table is a unique structure that is recommended to be adaptively reused as a water feature becoming the main focal point for the Perpendicular Walk that will become the primary east-west artery connecting the Barelas and South Broadway communities. The proposed Railroad Bridge is an extension of Parcel 6 to the east over the BNSF Rail lines, and to the west, Parcel 6 extends around the west façade of the Machine Shop to contain the central transit plaza, the front door of the project. Finally, Parcel 6 is to be covered by a transparent roof that will span between the existing structures providing protection from the elements.

# Parcel 7

The boundary of Parcel 7 coincides with the footprint of the historic Blacksmith Shop building with the exception that also contains the  $\sim 10'$  wide walkway immediately west of this building to be preserved as a pedestrian and utility access easement for adjacent parcels. Similar to Parcels 5 and 8, Parcel 7 is envisioned to house an anchor business tenancy. Parcel 7 will utilize Parcel 6 as its primary access easement to 2nd Street and will utilize the proposed subterranean parking contained in Parcel 10 to satisfy code parking requirements.

# Parcel 8

The boundary of Parcel 8 contains the combined footprint of the historic Boiler Shop, Flue Shop, and Tank Shop structures. The three structures are currently linked to one another through interior connections thereby affording the possibility of a single tenant utilizing all three combined. Alternatively, Parcel 8 may be developed in a multi-tenant arrangement with common areas. Similar to Parcel 7, Parcel 8 gets access to 2nd Street via Parcel 6 and will be parked in Parcel 10 to the North.

### Parcel 9

Situated north-south along 2nd Street, Parcel 9 is the primary retailparcel of the site an appropriate place to integrate retail with housing as part of a mixed-use development. Primary features include the designated City Landmark Firehouse building and the proposed perimeter Acoustic Mound structures that are to be hollowed out to contain various retail shops and pedestrian walkways through the site. The Firehouse itself is intended to be converted to a restaurant/café use in order to reinforce the retail edge. The café is surrounded with a generous exterior plaza carved into the Acoustic Mounds providing additional seating and informal gathering spaces. Parcel 9 retail is intended to complement rather than replace any of the existing retail amenities along 4th street within the Barelas neighborhood.

# Parcel 10

Parcel 10 completes the Northern portion of the site and is similar to Parcel 1 to the South except that its primary use designation is Business vs. Cultural. Parcel 10 contains the proposed Paseo North building and the subterranean parking garage below. As such, Parcel 10 is envisioned as an auxiliary parcel to Parcels 7 and 8 that contain historic structures and likewise may be less flexible with regard to development options. Uses contained in the Paseo North building are intended to complement those uses in the historic structures, e.g. laboratory space, training/education, or research and development. Parcel 10 also contains perimeter Acoustic Mounds and a retail zoned edge that will act as an extension of Parcel 9 to the South. Such retail uses may be more business oriented and may include options for limited on-site hotel facilities. NOTE: BLANK PAGES ADDED TO ACCOMMODATE TEXT REVISIONS ONLY, WILL BE REMOVED ONCE TEXT IS FINALIZED.

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#### **DESIGN FEATURE**

- 1 PASEO NORTH
- 2 PASEO SOUTH
- 3 ACOUSTIC MOUNDS
- 4 FIREHOUSE CAFE
- 5 MACHINE SHOP PLAZA
- 6 QUADRANGLE
- 7 MEANDERING WALK
- 8 EDGE WALK
- 9 PERPENDICULAR WALK
- 10 GLASS CANOPY
- 11 RAILROAD RETAIL BRIDGE
- 12 TRANSIT PLAZA
- 13 REBUILT ROUNDHOUSE
- 14 REBUILT SMOKESTACK
- 15 TURNTABLE AMPHITHEATER COMMONS
- 16 WORKFORCE HOUSING
- 17 CISTERN
- 18 COURTYARD
- 19 PARKING ACCESS
- 20 AT-GRADE CROSSING
- 21 BRIDGE CRANE MARKET
- 22 TRANSFER TABLE POOL

#### NOTE:

Design Features shown are for illustrative purposes only and are not regulatory features of the MDP document.

## VIGNETTE VIEW REFERENCE 💔

Note: Concept vignettes included on the following pages are intended to provide a sketch view of selected significant spaces envisioned by the Rail Yards Master Plan.

Tableau 32: Illustrative Master Plan



TRANSFER TABLE POOL



## 6.87 Concept Vignettes (Illustrative sketches to convey concepts)





# View 1: Firehouse Cafe

The historic Firehouse is adaptively reused as a restaurant/cafe and surrounded by a generous public plaza availble for outdoor seating and events. The plaza perimeter is defined by the Acoustic Mounds which are sculpted to create pockets for small group seating and "off-road" strolling areas. Neighbors, workers and visitors alike can traverse the mounds for exercise, and use the seating, located variously, to look out and enjoy views to the site and surrounding neighborhood.

The plaza area surrounding the Firehouse ties into and extends the perimeter Edge Walk concept onto the site.

Given the discrete nature of its location, development of the Firehouse Cafe could be one of the Master Plan actions to be implemented and accordingly is included in Phase 1 of the development schedule.

# View 2: Meandering Walk 🕰



The Meandering Walk is a tree-lined, on-grade path, the that provides a leisurely, curvilinear route moving pedestrians north and south across the site along the edge of the Acoustic Mounds. The Meandering Walk follows the curvature of the east or west elevations of the office/lab/cultural spaces housed beneath the North and South Paseo structures. First floor office, laboratory, or cultural related spaces below the Paseo deck look out on this walk-way. Glazing along the work-area perimeter brings natural light to the work-space interiors, and permits views from the walk in and the from the offices out.

Trees shade both the Meandering Walk and the edge of the Paseo deck above. Intermittent seating opportunities are provided along the walks on both east and west sides of the Paseo. The edge of the walk will be developed as a drainage swale to collect and control storm water.



# View 3: Quadrangle 3

The Quadrangle, created by the intersection of the North Paseo with the "U" shaped conjunction of the Flue, Boiler and Tank Shops, is a more private, "walled" enclosure that opens to the north across a large public stair, effectively connecting the Quadrangle floor across the North Paseo to the Downtown City Center.

The Quadrangle is either open to the sky or can be readily covered by attaching a temporary canopy to the roof edges of the buildings that define the Quadrangle perimeter. The resulting space can be used in a variety of ways as an open-air performance, market, or exhibition venue with seating imported as required, or alternatively, using the descending stairs as permanent seats.



View 4: Edge Walk The Edge Walk runs parallel with the sidewalk along 1st and 2nd Streets adjacent the entire length of the western perimeter of the site. Along the way, the Edge Walk extends and contracts with the undulations of the Acoustic Mounds to include street side plazas, landscaped areas, and proposed retail spaces. The Edge Walk concept may be developed in conjunction with the current need to provide improved sidewalks (current missing) along the property edge. Visitors arriving to Albuquerque at the Alvarado Transporation Center will be encouraged to walk to the Rail Yards and will get their first experience of the site along the Edge Walk.



# View 5: Perpendicular Walk

The Perpendicular Walk is the pedestrian heart of the redeveloped Rail Yards project and the critical connective tissue between the Barelas and South Broaway neighborhoods. The Walk is a rectangular, east/west pedestrian space, located midway along the site between the Machine and Boiler/Blacksmith Shops and flanking the historic Transfer Table. The Perpendicular Walk is covered by an all-glass canopy that spans between the perimeter buildings by a light weight cable truss system that may also accommodate intermittent skywalks serving potential future tenant needs. The glass canopy will provide cover to the space and will collect and funnel rainwater into a cistern for future reuse. The trough of the Transfer Table is adaptively reused as a water feature that will provide evaporative cooling and reflect/refract the grandeur of the historic facades across the surface of the water. The Perpendicular Walk terminates in a bridge structure, the Retail Pedstrian Bridge, that spans the BNSF railway, currently in use.

# View 6: Machine Shop Plaza



Extending south from the Machine Shop is the Machine Shop Plaza, useable for exhibits or open air markets. The Master Plan proposes to adaptively reuse the historic Bridge Crane apparatus attached to a steel frame that extends across the south elevation. The Bridge Crane and steel frame support an innovative retractable canopy that attaches to the existing Crane mechanism. When the Crane moves across the south elevation from east to west, it pulls the canopy with it, so that either a portion of or the entire space below can be covered, allowing for marketing space in every sort of weather. The canopy can be opened and retracted as events in the Plaza require. The canopy itself is made from 2 layers of colored PVC fabric welded at the seams (not unlike Hot Air Balloon construction) to form a series of "pillow" type structural membranes continuously attached to the Bridge Crane support tracks and spanning the 50ft width of the space. Once in place, the canopy is inflated via air compressors installed on the crane.



**View 7: Roundhouse Amphitheater Turntable Commons** The Roundhouse Amphitheater Turntable Commons is a dynamic public space created by the convergence of the South Paseo and the proposed rebuilt Roundhouse structures. At the center of the Roundhouse Amphitheater Turntable Commons resides the historic Turntable that will remain in operation for BNSF service in the forseeable future and that may have a role in the future programming of the space as an analogue stage. Tiered seating surrounding the Turntable extends to connect to the Roundhouse which will be constructed in the same plan position and with the same massing as the original building.

The Roundhouse Amphitheater Turntable Commons is an openair venue for cultural uses including concerts, performing arts and museum uses. A light-weight net canopy will provide shading.



View 8: Pedestrian Retail Bridge The Pedestrian Retail Bridge will allow people and bicycles to cross over the BNSF Rail lines to and from the Rail Yards site. The Bridge will also contain occupiable spaces that may be used for retail, workshops, or artist studios. The Bridge, by virtue of its location above an operational railway will become a gateway symbolizing the rebirth of the Rail Yards to rail passengers. Should a future train stop be permited, the area immediately below the Bridge would be used.




View 9: Aerial View 9

TABLEAU 43: Conceptual Aerial View from the Northwest





# View 10: Aerial View 10



TABLEAU 54: Conceptual Aerial View from the West

### 6.98 Surrounding Development Opportunities

The longterm success of the Rail Yards redevelopment will be aided by the simulataneous and complimentary investment and redevelopment of its immediate surroundings. Although not directly part of the Master Plan scope, the strategic planning of this area is an important subject to be included in the MDP document. Recommendations for the development of these adjacent sites are as follows (refer to Figures 14-15 for diagrams showing existing vacant lots in South Broadway, dated 2013 and Barelas, dated 2010 respectively);

- Vacant parcels located within the Barelas and South Broadway neighborhoods could be developed and infilled as housing to match existing city fabric.
- Vacant or currently occupied parcels north of the site currently zoned SU-2 WD (warehouse district) could be developed as a continuation of the innovation and creative-based business hub envisioned by the Rail Yards Master Plan. The BNSF property immediately north of the Rail Yards site could be similarly developed, creating an innovation corridor that will connect downtown with the redeveloped Rail Yards.
- BNSF property immediately east of the Rail Yards could be planned for future public / cultural / community uses that will extend the cultural center envisioned as part of the Master Plan. In general, the planning strategy is for the Rail Yards to become an "anchor tenant" on both a cultural and private business level with complementary tenancies and uses extending outward.
- The large storm water catchment area located east of the BNSF rail lines and Commercial Street in South Broadway could be developed as a public park. As a place of repose away from the gritty aesthetic of Rail Yard, the park would be a great place to "take in" the redeveloped site without having to be there. It's plan

shape, focused orientation and sculpted terrain provide a natural lanscape for public gatherings and would be a great asset to the community.

- Pedestrian connections from the Rail Yards to local Barelas businesses located on 4th Street are important and could be strengthened. At a minimum, Santa Fe Avenue could see additional tree planting and beautification to facilitate pedestrian traffic. 4th Street local businesses will be a great amenity for future users of the Rail Yards site.
- Similarly, sidewalk connections along 1st Street between the Alvarado Transportation Center and the Rail Yards could be improved.



#### Figure 14: Existing Vacant Lots, South Broadway Inventory (2013)



### Figure 15: Existing Vacant Lots Highlighted in Yellow, Barelas SDP (2010)





### 7.0 LANDSCAPE MASTER PLAN

The landscape concept for the Rail Yards celebrates the gritty nature of a railroad setting with materials and plants that remind patrons of the form and functional needs of the historic users of the site. Although the Rail Yards are historically an Industrial Site, photographic evidence depicts landscape, specifically large shade trees, along the perimeter of the site. Plantings are a valuable component of our environment by cooling our city, cleansing the air, and absorbing noise. The plant palette for the Rail Yards includes a variety of plant species that are native or naturalized to the high desert landscape of New Mexico in an effort to create a space that relates to historic landscape condition of the site.

Refer to Section 10.5 for a description on the process for amendments or deviations to the MDP.



Rail Yards construction showing Historic Landscape

### 7.1 Design Goals

The landscape of the Rail Yards is intended to be aesthetically pleasing with distinguishing characteristics; meet the needs of the site users and adjacent neighborhoods; universally accessible; responsible with water use; considerate of maintenance issues; and considerate of the health, safety and welfare of the users. Landscape design goals include:

- Enhance the attributes and characteristics of the site to provide a sense of place while respecting the history of the site.
- Design the site to serve as a focal point and activity hub for the surrounding community.
- Provide universal accessibility with strong connections to and throughout the site.
- Create visual connections to the site.
- Create acoustic mounds a perimeter landscape buffer between the Rail Yards and the surrounding neighborhoods. Plant materials and acoustic mounds bermed earth will may be used to attenuate noise from the railroad tracks and provide visual interest.
- Provide shade via trees and areas within the acoustic mounds that provide a retreat from sun exposure.
- Use plants to provide visual connections between multiple outdoor spaces and define edges of different lands uses and outdoor pedestrian areas.
- Provide plants with flowers, textures, and/or fragrance for sensory stimulation (i.e. sight, touch, and smell).

• Preserve the City's natural resources through innovative design approaches which respond to water conservation and solar exposure. Captured stormwater from multiple sources will be utilized for irrigation purposes. Opportunities to harvest water should also be explored to optimize use of this valuable resource.

### 7.2 General Landscape Design

The site allows for a wide range of activities to serve the interests of the greater community as well as the local neighborhoods. Therefore, the landscape design for the Rail Yards allows for and encourages year-around use by employing a plant palette with four seasons of visual interest. Shade trees will be used strategically to provide enjoyable spaces protected from sun exposure. Temporary and/or permanent shade structures may be constructed within the north and south Paseos site, but should be sited to preserve the long vistas to the historic buildings.

In addition, trees and other plantings will be placed to define areas for their unique uses and buffering for safety as applicable. The plant palette and landscape features (e.g. hardscape, furnishings, lighting, signage, etc.) will be consistent throughout the Rail Yards property to identify a clear image for the site. Designing for pedestrian level views as well as aerial views of the site will serve to garner a memorable space for the community.

Some areas of the site will may function like that of an extensive roof garden or greenroof. Subterranean buildings and parking areas could provide ideal conditions to utilize green infrastructure opportunities. With a depth of only a few inches of growing medium, drought-tolerant plants with shallow root systems are a necessity. This type of roof garden is not intended to be walked upon, except for maintenance, and usually does not feature pedestrian access. As a result, this lightweight system may often be installed on

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existing buildings without the expense of structural modification and maintenance. Although retrofitting existing buildings with greenroofs may be explored, their inclusion is not anticipated at the Rail Yards. Rather, new subterranean structures are proposed to could offer greenroof spaces. Typically, the main purposes of extensive roof gardens are to add insulation, address ecological issues, and improve views from overlooking offices and apartments. By incorporating greenroofs into the design of the acoustic mounds at the Rail Yards, the site will serve as a local precedent in how the economic undertaking of upgrading a desolate rooftop or creating a new building's greenroof space is far less of a burden when compared to the ecologic and healthful contributions immediately and over time.

The proposed landscape design for the Rail Yards emphasizes sustainability with permeable surfaces, low water use, low maintenance, and recycling to the greatest extent possible. On-grade plaza elements not directly above the subterranean garage should include permeable hardscape options. The plant palette shall primarily include native and/or naturalized plant species that perform well in an arid environment. Plants will be chosen for their ability to stimulate the senses by texture, fragrance, and/or flowers. Recycling on-site materials for soils, mulches, and landscape features are encouraged in effort to celebrate the setting and history of the site.

Rainwater harvesting measures, such as curb cuts and bioswales, shall be provided where feasible. Curb cuts (minimum 1' wide) may be provided in places where there is a curb or seat wall in order to allow water runoff to infiltrate landscape areas. Swales shall be composed of native and/or naturalized vegetation with cobble along the centerline and side slopes no steeper than 3:1 or use of vertical boulder walls as edging. Soils may need to be amended to facilitate infiltration. Intermittent check dams may be installed to further abet silt capture as necessary. The image below illustrates multiple options for stormwater capture that may be used at the Rail Yards.



All planting areas, other than turf, shall be top dressed with a minimum 3" layer of mulch. Turfgrass will be limited per City requirements and placed to maximize pedestrian views and access. Street trees shall be grouped to frame views and enhance the landscaped mounds at the edges of the site. The Street Tree Ordinance shall not apply to 2nd Street for the Rail Yards project.

#### 7.2.1 Acoustic Mounds

The aAcoustic mMounds described in Section 6 demonstrate one possible edge treatment concept for help to frameing the Rail Yards boundaries and provideing a buffer from the surrounding uses in an interesting and playful manner. The mounds should have flexibility of being either planted, hardscape, or a mixture of both. The mounds may be planted with mostly drought-resistant species to provide recreational spaces, as well as enhance their visual screening function. Deep-rooted native and naturalized plants are preferred for infiltration and reduced maintenance. Including native and naturalized grasses with fibrous root systems will help alleviate erosion concerns along the steep slopes that may occur on the mounds. Depending on design, there may be an opportunity to provide turfgrass in areas with slopes that are amenable to mower access. The use of grasses should signal the transition from more manicured to wilder areas of the landscape. Low and high water use turfgrasses should be defined separately from each other with a shrub buffer. Plant materials on the aAcoustic mMounds will should be kept below eye-level to accentuate the rolling line of the mounds. The only exception on plant heights is on the down slope of the Acoustic Mounds where trees may line the edges. Trees will follow the meandering path on the interior side, but will serve to frame and enhance views on the 2nd Street side. Seating opportunities may be provided via slopes as well as fixed or movable

furnishings. Some slopes on the mounds may be terraced to provide integrated seating. The slopes should generally follow the City of Albuquerque's design standards for slope requirements for safety and erosion control. Where the edges of the Acoustic Mounds meet grade (typically hardscape), swales should be identified as needed to address water harvesting drainage, as well as to supplement the irrigation for plants.

(relocated text) Accessibility of the Acoustic Mounds would vary across the site dependent on their internal use (when applicable) and the grading necessary to transition safely to surrounding hardscape areas. Terracing is encouraged to soften slopes and provide seating opportunities near activity centers. Slopes will require vegetation to prevent erosion and beautify the landscape. However, steep areas are difficult to mow (turfgrasses) and maintain. Synthetic turf may be an appropriate alternative to consider. Heavy ornamental grass cover is encourages as it is better at slowing water runoff than is turfgrass, but both are acceptable means for binding soil to the slope.

Although 1.5% slope is preferred to maximize recreational uses, turfgrass may be installed on landscapes up to 5:1 slope for areas to be used for passive seating and similar uses. In addition, irrigation sprinklers that typically serve turfgrass areas should be kept at least five



Tiguex Park, Albuquerque, smaller scale precedent for Acoustic Mound concept

five from walls, windows and other architectural structures to prevent alkali staining on surfaces.

The conceputal Acoustic Mound features will be considered in detail if included in a Site Plan for Building Permit submitted per the development approval process described in Section 10.

#### 7.2.2 Meandering Paths

The meandering paths line the interior sides of the acoustic mounds. Shade trees and seating opportunities will be placed along these paths to create a welcome retreat for enjoying views of the site across the open paseos. Where the edges of the Acoustic Mounds meet grade (typically hardscape), swales should be identified as needed to address water harvesting drainage, as well as to supplement the irrigation for plants. (CONSOLIDATED WITH OTHER SUB-SECTION)

#### 7.2.3 Workforce Housing

The workforce housing is located at the southwestern portion of the site adjacent the proposed acoustic mound features. The mounds in this location are focused more on serving residents rather than the visiting public. Although drought-resistant species will still dominate the plant palette, places for recreation that includeturfgrasses are encouraged. Gathering spaces, with shaded seating opportunities, for community events for the residents shall be provided. (CONSOLIDATED WITH OTHER SUB-SECTION)

#### 7.2.4 Firehouse Cafe

The firehouse is a historic building that will be highlighted with its ownplaza surrounded by acoustic mounds. Planting beds and trees in treewells may be incorporated within the plaza to soften the space and reduce sun exposure. The use of outdoor seating with umbrellas will also be used to activate this pedestrian area. (CONSOLIDATED WITH OTHER SUB-SECTION)

#### 7.2.5 Transit Plaza

The transit plaza is located along Second Street. It will include a busshelter, benches, and a trash receptacles that meet the typical Citystandards. The design of this area should be coordinated with ABQ-Ride. (CONSOLIDATED WITH OTHER SUB-SECTION)

#### 7.2.6 Connectors

The Connectors are the major entrances to the site. The Neighborhood/Site Interface locations are additional access points. These areas may include site furnishings and amenities as well as special paving and landscape plantings. (CONSOLIDATED WITH OTHER SUB-SECTION)

#### 7.3 Amenities

Site furnishings and other amenities will be of a consistent high quality, vandal resistant design. They will be constructed of durable materials such as concrete and powder coated steel. A consistent color palette that is in keeping with the overall design intent of the Rail Yards will be utilized for finishes. A variety of amenities are anticipated to satisfy a range of needs for potential patrons.

#### 7.3.1 Seating

Seating areas will be provided for individual use and for larger group activities to ensure pedestrian comfort throughout the site. The paseos will provide the greatest opportunity for seating quantities and configuration options, but seating opportunities shall be placed periodically along all pedestrian routes. Permanent seating opportunities will be strategically placed throughout the Rail Yards and mobile, temporary seating will be made available for special events. Seating areas may include benches, chairs, picnic tables, seat walls, and informal seating along landscaped slopes. Low retaining walls may be included at the base of the Acoustic Mounds to soften the slope transition with seating opportunities at the edges of pedestrian traffic flow. Picnic tables should be provided in numerous locations across the site for those who wish to enjoy a meal outdoors. Seating options should be shaded by trees and/or architectural features whenever possible to provide a comfortable resting space.

#### 7.3.2 Trash and Recycling Receptacles

Trash and recycling receptacles will be located in all areas where people gather to attend events, enjoy refreshments, wait for transportation, or picnic. They will also be located in close proximity to area entries and exits to allow people to easily dispose of waste when traversing various site activities. Receptacles will be placed in areas that are easily accessible to vehicles in order to provide for ease of maintenance.

#### 7.3.3 Drinking Fountains

Drinking fountains will be located in high pedestrian use areas and near picnic tables. They will be provided with freeze-proof valves and located in areas easily accessible to maintenance vehicles.

#### 7.3.4. Bike Racks

Bike racks shall be provided near vehicular parking areas as well as at various perimeter site locations. They should not be installed within the interior of the site in effort to deter bike riding through the site; rather, they should be installed in locations that encourage dismount before traversing past the Acoustic Mounds and into the pedestrian spaces. Signage may be installed to identify bike dismount areas as needed. Bicycle parking will be provided at a rate of 1 space per each 20 vehicular parking spaces.

### 7.3.5 Bollards

Permanent bollards will be located as necessary to prohibit vehicular traffic in restricted areas. Removable bollards will be provided where access for fire trucks and other emergency vehicles is required. Bollards will be of a unified design throughout the site.

#### 7.3.6 Information Kiosks

The design of the information kiosks will be in keeping with the industrial architectural style of the Rail Yards. Appropriate kiosk design shall ensure articulation of all kiosk faces, rather than placing all emphasis on the front elevation of the structure and neglecting or downgrading the aesthetic appeal of the side and rear elevations. The kiosks will be located in high pedestrian use areas such as the transit plaza, market areas, and paseos. Information kiosks will include permanent signage and maps of the site identifying locations of major activity centers. They will also accommodate temporary signage for special events.

### 7.4 Water Conservation Ordinance Compliance

The plant palette is predominantly comprised of plants with low to medium water use requirements, thereby minimizing irrigation needs while ensuring viability of the plants. An evapotranspiration management controller should be included in the design of the irrigation system to monitor weather conditions so that optimum moisture balance is achieved and the possibility of over-watering is reduced.

### 7.5 Irrigation System

The irrigation system shall adhere to the standards outlined in the Water Conservation Landscaping and Water Waste Ordinance. A fully automated irrigation system with a centralized computer control system will be used to irrigate tree, shrub, and groundcover planting areas. Satellite controllers will be placed at strategic areas and linked back to the central system. Mainline piping shall be provided according to standard City specifications. Gate valves will be located at strategic points along the mainline piping system to allow for isolation of sections for maintenance reasons. The irrigation system will be metered separately based on ownership. The irrigation system will be designed to isolate plant material according to solar exposure and will be set up by plant zones according to water requirements. Trees, shrubs, and groundcovers will be grouped on the same valve. Turf areas will be irrigated with pop-up rotary sprinklers with high efficiency nozzles. Temporary irrigation shall be provided for all areas receiving native seed mixes until established. The design for shrub and groundcover areas shall consider alternative irrigation technology (e.g. bubblers, drip irrigation, dry water packs, water harvesting opportunities, etc.). The irrigation system for all cool season turf grass shall be designed to apply 2/3-inch of water in a 7 hour window.

Where non-potable water sources are utilized, irrigation components will be selected for use with non-potable water sources to allow for connection to the captured stormwater systems. Backflow prevention will be provided per City code to protect the potable water system from the irrigation system. Irrigation components shall be readily available for maintenance and/or replacement. The entire irrigation system will be designed to maximize water efficiency.

### 7.6 Clear Sight Requirements

Landscape plans included with individual projects will ensure that landscaping and signing will not interfere with clear sight requirements at points of ingress/egress at the site. Therefore, signs, walls, trees, and shrubbery between 3 and 8 feet tall (as measured from the gutter pan) will not be acceptable in this area and shall be noted as such on the landscape plan.

### 7.7 PNM Coordination

As part of the landscape plan included with individual projects, coordination with PNM's New Service Delivery Department is

necessary regarding proposed tree location and height, sign location and height, and lighting height in order to ensure sufficient safety clearances.

Landscape screening will be designed to allow for access to electric utilities. It is necessary to provide adequate clearance of ten feet in front and at least five feet on the remaining three sides surrounding all ground-mounted equipment for safe operation, maintenance, and repair purposes.

### 7.8 Maintenance Responsibility

Maintenance of the landscaping and irrigation system, including those areas within the public Rights-Of-Way shall be the responsibility of the owner. In addition, maintenance of landscape elements such as benches, litter receptacles, signs, etc., within the common areas shall be the responsibility of the owner. Long term maintenance of landscaping shall be consistent across the site. This should be accomplished in future agreements between the Master Developer and the City and between the Master Developer and future users of the site, as applicable.

#### 7.9 Landscape Planting Design

(Note: This plant palette serves as a suggested list and others may be added to fit particular situations as necessary. )

There are four primary areas of landscape plantings at the Rail Yards property. These may include but are not limited to:

- Acoustic Mounds Edge Treatment
- Meandering Paths
- Connectors
- Transit Plaza

The landscape treatment is limited to these four areas. The main

plaza areas are not anticipated to include any plant materials. The planting approach for each of these four areas is provided below. See Plant Palette at the end of this section for a complete list of suggested plant species for the Rail Yards site.

#### 7.9.1 Acoustic Mounds Edge Treatment

The acoustic mounds are Landscaping is located along most of the site's boundary. Their unique forms should be celebrated with utilizing a plant palette that adjusts depending on site conditions (i.e. slope, orientation, activity space, etc.) while emphasizing the organic form of the acoustic mounds. In all cases, the plants selected for use on the acoustic mounds should have a mature size that does not exceed four feet in height. The majority of the acoustic mounds will be planted with shrubs, groundcovers, native and ornamental grasses, vines, and flowers, but turfgrasses are allowable within the confines of the City's limitation on high-water-use turf.

Accessibility of acoustic mounds will vary across the site dependent on their internal use (when applicable) and the grading necessary to transition safely to surrounding hardscape areas. Terracing isencouraged to soften slopes and provide seating opportunities nearactivity centers. Slopes will require vegetation to prevent erosion and beautify the landscape. However, steep areas are difficult to mow (turfgrasses) and maintain. Synthetic turf may be an appropriate alternate to consider. Heavy ornamental grass cover is encouraged as it is better at slowing water runoff than is turfgrass, but both are acceptable means for binding soil to the slope. (MOVED)

Turfgrass will be limited, but placed in key locations for patron use. The workforce housing is anticipated to have one large turfgrass area for use by residents for recreation and community gathering events. Other acoustic mounds may include turfgrass, but are anticipated for use more as an oasis. Although 1.5% slope is preferred to maximize recreational uses, turfgrass may be installed on landscapes up to 5:1 slope for areas to be used for passive seating and similar uses. In addition, irrigation sprinklers that typically serve turfgrass areas should be kept at least five feet from walls, windows, and other architectural structures to prevent alkali staining on surfaces. (MOVED)

Appropriate traditional, recreational turfgrass species for the Acoustic-Mounds include but not limited to:

 Poa hybrid (see Plant Palette at the end of this section for description of specifications as well as an example species)

Appropriate native and general use turfgrass species for the Acoustic-Mounds may include but are not limited to:

- Bouteloua species Grama
- Buchloe dactyloides Buffalograss
- Hilaria jamesii Galleta

Grasses are a key component to the natural New Mexican landscape as they can be found growing successfully across all areas of the state. Grasses typically are fast-growing and have strong root systems that are well-suited for stabilizing slopes to prevent erosion. The steepest slopes should include dense plantings of ornamental grasses.

Ornamental grasses, shrubs, groundcovers, and vines with aggressive rhizomes and stolons may all be planted on steeper slopes (5:1 and greater) to help stabilize the soil. These plant types should also be included in the buffer areas between more manicured (i.e. traditional turfgrass) to wilder areas (i.e. native turf) as well as for general planting on the acoustic mounds edges across the site.

Appropriate ornamental grass species for the steepest slopes and other areas on the Acoustic Mounds within the Edge Treatments may include, but are not limited to:

- Aristida longiseta Purple Threeawn
- Calamagrostis x acutiflora 'Karl Foerster' Karl Foerster Grass
- Muhlenbergia capillaries 'Regal Mist' Regal Mist Muhly Grass
- Pennisetum species –Fountain Grass

Appropriate shrubs, groundcovers, and vines species for steep slopes, buffer areas and general planting <del>on the Acoustic Mounds</del> include but not limited to:

#### Shrubs & Groundcovers

- Artemisia & Salvia Sage (deciduous & evergreen)
- Buddleia davidii nanhoensis Dwarf Butterfly Bush
- Chrysothamnus nauseosus Chamisa
- Jasminum nudiflorum Winter Jasmine
- Leucophyllum frutescens 'compactum' Compact Ceniza
- Potentilla species Shrubby and Spring Cinquefoils
- Prunus besseyi Western Sand Cherry
- Psorothamnus scoparius Broom Dalea
- Rhus trilobata species –Sumac
- Agave species Agave
- Atriplex canescens Fourwing Saltbush
- Ceratostigma plumbaginoides Blue Leadwort
- Ephedra species Joint Fir
- Fallugia paradoxa Apache Plume
- Lavandula species –Lavender
- Opuntia ellisiana Spineless Prickly Pear
- Pinus mugo Mugo Pine
- Rosmarinus officinalis–Rosemary
- Salvia species –Sage
- Santolina species Santolina
- Sedum species Stonecrop
- Yucca species –Yucca

#### Vines

- Campsis radicans Trumpet Vine
- Parthenocissus inserta Woodbine
- Hedera helix English Ivy
- Lonicera species Honeysuckle

Flowers should be <del>provided</del> included within the Edge Treatments <del>at</del> the acoustic mounds that to provided year around color<del>ful interest</del>. At the base of the acoustic mounds, as an accent across the <del>acoustic mounds</del> site<del>,</del> and at key gateway <del>acoustic mound</del> locations, a variety of flowers may be used for accent purposes</del>.

Appropriate flower species for the accent at the base of the Acoustic-Mounds Edge Treatments may include but are not limited to:

#### **Perennials**

- Alcea rosea Hollyhock
- Centranthus ruber Red Valerian
- Hemerocallis hybrids Daylilies
- Linium perenne Blue Flax
- Penstemon spp. Penstemon
- Ratibida columnifera Coneflower

#### **Bulbs**

- Crocus spp. Crocus
- Narcissus spp. Daffodil
- Muscari armeniacum Grape Hyacinth
- Tulipa spp. Tulip

In addition, the Gateway locations at the base of the Acoustic Mounds also may include but are not limited to:

#### Annuals

• Gaillardia pulchella – Blanketflower

- Mirabilis species Four O'clock
- Salvia species Sage
- Tagetes species Marigold
- Viola wittrockiana Pansy

Passive water harvesting opportunities are required. The toe of the slope of all acoustic mounds shall be recessed below the adjacent paving to capture runoff; both stormwater from the paving as well as from the irrigation system serving the planted acoustic mounds. Depending on the height of acoustic mound and degree of slope tothe border of the paved areas, swales of cobble (rather than smaller diameter rock mulch or turfgrass) with plantings may be needed tominimize erosion. (MOVED)

### 7.9.2 Meandering Path

The meanering paths for pedestrians are located throughout the site. Shade trees and seating opportunities will be places along these paths where appropriate to create a welcome retreat for enjoying views of the site.

The meandering paths provide a means for pedestrian navigation across the Rail Yards property. Generally, the paths run north-south on the interior side of the acoustic mounds. Trees shall be placed to define both sides of the path edges as well as "rooms" and other features along the paths to be highlighted. Shade trees should be provided to create comfortable retreats for patrons as they traverse the site.Ornamental trees will identify special features along the path. Evergreen trees shall be included to offer year around color throughout the site.

Appropriate tree species for the Meandering Paths may include but are not limited to:

#### Shade Trees

- Ulmus Americana 'New Harmony' American Elm
- Platanus wrightii Arizona Sycamore

#### **Ornamental Trees**

- Chilopsis linearis Desert Willow
- Robinia ambigua 'Purple Robe' Purple Robe Locust

#### **Evergreen Trees**

- Pinus nigra Austrian Pine
- Pinus sylvestris Scotch Pine

#### 7.9.3 Connectors

The connectors are the access areas major entrances to the site, both pedestrian and vehicular, into the Rail Yards property. The connectors include the Neighborhood/Site Interface locations as secondary access points to the property. These locations may include site furnishing and be framed with shade and ornamental trees as a form of wayfinding to indicate an access point. In addition, flowers may be used to accent these major access points for a welcoming entry.

Appropriate tree species for the Connectors may include but are not limited to;

#### **Shade Trees**

- Fraxinus species –Ash
- Acer glabrum Rocky Mountain Maple

#### **Ornamental Trees**

- Foresteria neomexicana New Mexico Olive
- Pyrus species Flowering Pear
- Vitex agnus-castus Chaste Tree

For appropriate flower species for the Connectors, see list for <del>Acoustic</del>-Mounds Edge Treatment.

#### 7.9.4 Transit Plaza

The transit plaza serves as the "front porch" of the Rail Yards property. Shade and specialty trees as well as ornamental trees shall be used to provide protection from the sun for waiting transit passengers as well as accenting the space while still framing views into the site.

Appropriate tree species for the Transit Plaza may include but are not limited to:

#### **Shade Trees**

- Fraxinus species –Ash
- Tilia Cordata Littleleaf Linden

#### **Ornamental Trees**

- Pyrus species Flowering Pear
- Robinia ambigua 'Purple Robe' Purple Robe Locust

All trees on the property shall be placed in tree grates if not within landscape planting areas. These features shall be designed to provide protection for the trees from pedestrian traffic.

With exception of the turfgrass areas, all planting areas shall be top dressed with mulch as described in the General Landscape Design section of this document. Mulches shall be provided that are compatible with the conditions of the landscape as well as the plant selection for the space. Organic mulch will improve soil quality and is ideally suited for plants that prefer humus conditions (e.g. annuals and other heavily flowering plants). Rock mulches are best for plants requiring well-drained soil as well as for areas needing minimal maintenance. Organic mulches typically need to be renewed annually, but rock mulch may last for several years before needing supplemental mulch. Mulches placed in runoff, drainage areas and/ or in wind "tunnels" shall be angled-face rock mulches that are heavy enough (i.e. large enough diameter) to withstand stormwater and strong air flows. All areas top-dressed with rock mulches shall include a filter fabric underlay to minimize maintenance needs.

#### 7.9.5 Workforce Housing

The workforce housing is located at the southwest portion of the site. The landscaping in this location is focused more on seriving residents rather than the visiting public. Although droughtresistant species will still dominate the plant palette, places for recreation the include turfgrasses are encourages. Gathering spaces, with shaded seating opportunities for community events, shall be provided. (MOVED LOCATION).

#### 7.9.6 Firehouse Café

The firehouse is a historic building that will be highlighted with its own plaza <del>surrounded by acoustic mounds</del>. Planting beds and trees in tree wells may be incorporated within the plaza to soften the space and reduce sun exposure. The use of outdoor seating with umbrellas may also be used to active this pedestrian area. (MOVED LOCATION). NOTE: BLANK PAGES ADDED TO ACCOMMODATE TEXT REVISIONS ONLY, WILL BE REMOVED ONCE TEXT IS FINALIZED.

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#### 2014.01.21 DRAFT







American Elm



### 7.10 Plant Palette

(Note: This plant palette serves as a suggested list and others may be added to fit situations as necessary)

### 7.10.1 TREES

Deciduous Shade and Street Trees

- Acer glabrum Rocky Mountain Maple
- Fraxinus species –Ash •
- Platanus wrightii Arizona Sycamore •
- Tilia Cordata Littleleaf Linden
- Ulmus Americana 'New Harmony' -• American Elm

Littleleaf Linden



Chaste Tree





New Mexico Olive Tree



Flowering Pear

## **Deciduous Flowering Ornamental Trees**

- Chilopsis linearis Desert Willow •
- Foresteria neomexicana New Mexico Olive
- Pyrus species Flowering Pear ٠
- Robinia ambigua 'Purple Robe' Purple Robe ٠ Locust
- Vitex agnus-castus Chaste Tree

Desert WIllow



Scotch Pine



Low-Water Traditional Turf



Grama + Buffalograss Mix

#### **Evergreen Trees**

- Pinus nigra Austrian Pine
- Pinus sylvestris Scotch Pine •

#### 7.10.2 GRASSES

#### **Traditional Turf Species**

Poa hybrid – (or similar that requires • less irrigation, has deeper roots and aggressive rhizomes, plus excellent heat tolerance; e.g. Reveille - Gardner Turfgrass)

Native Turf and General Use Species

- Bouteloua species–Grama
- Buchloe dactyloides Buffalograss .
- Hilaria jamesii Galleta •



Fountain Grass







Muhly Grass



Karl Foerster Grass

### **Ornamental Species**

- Aristida longiseta Purple Threeawn
- Calamagrostis x acutiflora 'Karl Foerster' Karl Foerster Grass
- Muhlenbergia capillaries 'Regal Mist' Regal Mist Muhly Grass
- Pennisetum species –Fountain Grass







#### 7.10.3 SHRUBS & GROUNDCOVERS

**Deciduous Shrubs & Groundcovers** 

- Artemisia & Salvia Species Sage
- Buddleia davidii nanhoensis Dwarf Butterfly • Bush
- Chrysothamnus nauseosus Chamisa •
- Jasminum nudiflorum Winter Jasmine
- Leucophyllum frutescens 'compactum' • Compact Ceniza
- Potentilla species Shrubby and Spring Cinquefoils
- Prunus besseyi Western Sand Cherry
- Psorothamnus scoparius Broom Dalea •
- Rhus trilobata species –Sumac •







**Evergreen Shrubs & Groundcovers** 

- Agave species –Agave •
- Artemisia & Salvia species –Sage
- Atriplex canescens Fourwing Saltbush
- Ceratostigma plumbaginoides Blue Leadwort
- Ephedra species Joint Fir
- Fallugia paradoxa Apache Plume
- Lavandula species –Lavender
- Opuntia ellisiana Spineless Prickly Pear
- Pinus mugo Mugo Pine
- Rosmarinus officinalis–Rosemary
- Santolina species Santolina
- Sedum species Stonecrop ٠
- Yucca species –Yucca





Trumpet Vine

Honeysuckle



English Ivy

### 7.10.4 VINES

#### **Deciduous Vines**

- Campsis radicans Trumpet Vine
- Parthenocissus inserta Woodbine

### **Evergreen Vines**

- Hedera helix English Ivy
- Lonicera species Honeysuckle



Blanket Flower





Red Valerian







#### 7.10.5 FLOWERS

#### Annuals

- Gaillardia pulchella Blanketflower
- Mirabilis species Four O'clock
- Salvia species Sage
- Tagetes species Marigold
- Viola wittrockiana Pansy

#### Perennials

- Alcea rosea Hollyhock
- Centranthus ruber Red Valerian
- Hemerocallis hybrids Daylilies
- Linium perenne Blue Flax
- Penstemon spp. Penstemon
- Ratibida columnifera Coneflower

#### Bulbs

- Crocus spp. Crocus
- Narcissus spp. Daffodil
- Muscari armeniacum Grape Hyacinth
- Tulipa spp. Tulip

