CITY OF STOCKTON

MINER AVENUE STREETSCAPE PLAN

JACOBS

MARCH 2012

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EXECUTIVE SUMMARY

The Miner Avenue Corridor between Center and Aurora streets affords the City of Stockton (City) and the greater Central Valley region a strong opportunity to create a successful transit-oriented corridor (TOC). This corridor's location, urban form, and rail station provide the conditions to turn around its currently depressed real estate and socioeconomic conditions. Implementing the Miner Avenue Streetscape Plan (MASP) can leverage these strengths and opportunities to serve as a catalyst for broader Corridor investment.

Miner Avenue is a wide boulevard, which historically served as a primary downtown entryway. Cabral Station on the east and Weber Point on the west define the Corridor; the Altamont Commuter Express (ACE) serves the corridor. Cabral Station is also a prime location for more intense, high-density transit oriented development (TOD). Moreover, the Corridor is adjacent to downtown and the waterfront and it is surrounded by historic houses in fair condition. In addition, the Corridor features an existing street-grid pattern with building envelopes that can support higher density development.

Past and present City efforts have helped set the stage for TOD and TOC type development along the Corridor. The City has implemented an array of civic improvements downtown and in the waterfront area that extend into the west end of the Corridor. The City is also in the process of creating a multi-use downtown district and expanding night time entertainment and cultural uses in the downtown area. These efforts have helped to create land use and market conditions that are favorable for redeveloping the Corridor into a TOD hub.

Future plans for the Corridor also envision it as a key transportation center. The San Joaquin Regional Rail Commission is advancing a Phase I and II neighborhood revitalization and circulation plan. Proposed Cabral Station improvements include creating a civic space around the station area and revitalizing the neighborhood to support TOD. In addition, Cabral Station is proposed to become a stop on the State's high speed rail network between Sacramento and San Diego.

Commercial vacancies, vacant land, and low lease rates and land values reflect the Corridor's current disinvestment and set the stage for redevelopment. The area also struggles from a lack of identity, because it does not have key destinations or activity nodes in the center of the Corridor. Public improvements could help target the real estate disinvestment at the center of the Corridor and help create a collective identity for the Corridor. The Corridor is located near downtown but is separate from it and has the potential to be redefined as a new district and TOD gateway into the City and the greater Central Valley.

Importantly, the MASP, combined with the City's and the State's efforts to increase other modes of transport, creates the potential to transform this "car centric" boulevard into an attractive "complete street" that will encourage people to walk, bike, and use transit, as well as realize a synergy that will help reactivate Miner Avenue storefronts and vacant properties.

Miner Avenue - Past

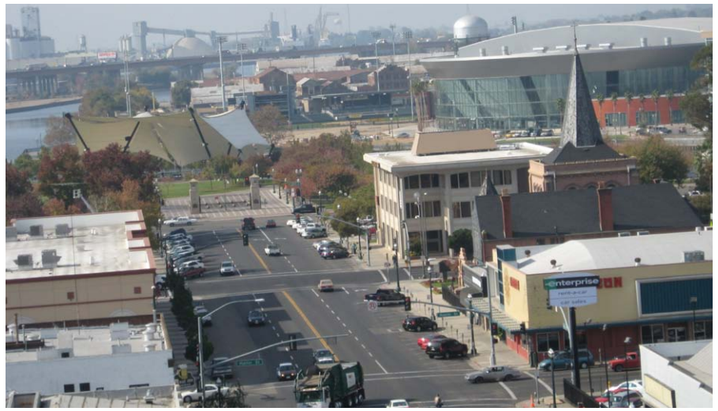
Miner Avenue - Present

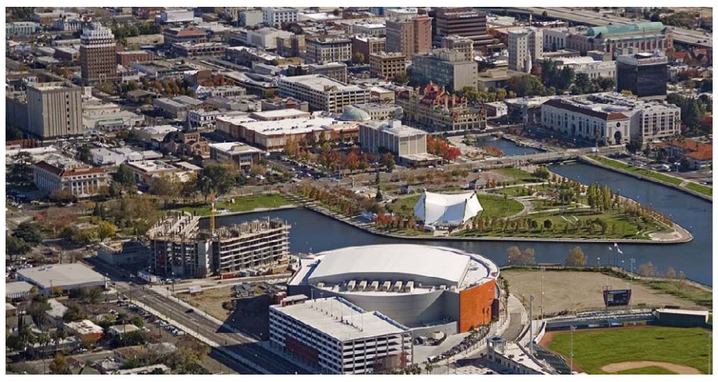

Cabral Station Renovation - 2011

Miner Avenue Context

The Miner Avenue corridor, with its vacant and underutilized parcels, varied building stock, and proximity to downtown and adjacent neighborhoods, offers redevelopment potential to attract new residents, employees, and visitors. Stockton's central business district has undergone significant redevelopment over the past decade. New downtown investments include the renovation of the historic Cabral Station at the east end of the corridor and the creation of the Weber Point Events Center, the Stockton Ballpark, the Stockton Arena, and the marina at the west end of the corridor. Connecting Cabral station with Weber Point will unify two significant urban amenities in downtown Stockton and revitalize a distressed area.

The MASP builds on these recent real estate investments with a multi-modal connection between the transit station and the waterfront. The MASP enhancements will help redefine this historic corridor in relation to downtown and the greater urban context to position it for private and public investment.





Stockton Waterfront Investments

Plan Features

The plan provides a new vision for the public right-of-way (ROW) and adjacent properties along the corridor. The predominantly paved ROW is an auto-dominated environment with minimal amenities for pedestrians and bicyclists. The MASP redefines the ROW, giving equal priority to pedestrians, motorized vehicles, bicycles, and transit. The new vision calls for converting one travel lane in each direction plus the diagonal on-street parking into a Class II bicycle lane with parallel on-street parking and enlarged sidewalks, water quality features, seating areas, and street tree planters. The plan will also accommodate a future Personal Rapid Transit (PRT) facility, which the San Joaquin Regional Rail Commission is considering, within the parallel parking area on the south side of the street.

In addition, the MASP includes recommended architectural standards and guidelines to ensure that the corridor develops with a strong urban form scaled and proportioned for pedestrians rather than automobiles.

Proposed Miner Avenue Enhancements

Recommendations

Short-term MASP implementation measures are important to ensure that the plan is implemented effectively and consistently. Approval or adoption of these measures will also strengthen the City's ability to obtain grant and other funding to cover the cost of the public-sector construction improvements. These implementation measures include:

- **Bikeway Master Plan Amendments:**
  Add several important waterfront bike links to the City's Bikeway Master Plan (an element of the City's General Plan 2035), including changing the "Class" of some bikeways and creating entirely new links.
- **Precise Roadway Plan (PRP):**
  Prepare a PRP for the ten block corridor to evaluate the MASP's lane reduction, roundabout, and limited turning movement recommendations.
- **Special Planning District:**
  Create a zoning overlay classification for mixed-use development along the ten block corridor to provide flexibility in the choice of uses, particularly stacked mixed use, while maintaining the MASP's strict massing and façade requirements.
- **Downtown Stockton Alliance (DSA) Boundary Amendment:**
  Modify the boundaries of the DSA to include the entire ten block corridor within the Zone 4 benefit zone. This could be phased in as improvements occur along the corridor, but most effective early in the roadway enhancements to ensure good maintenance.
- **Grant Applications for Phase One Improvements:**
  Apply for grants to fund the first four blocks identified as phase one in the MASP.

I. INTRODUCTION AND PROJECT DESCRIPTION

A. Purpose & Goals

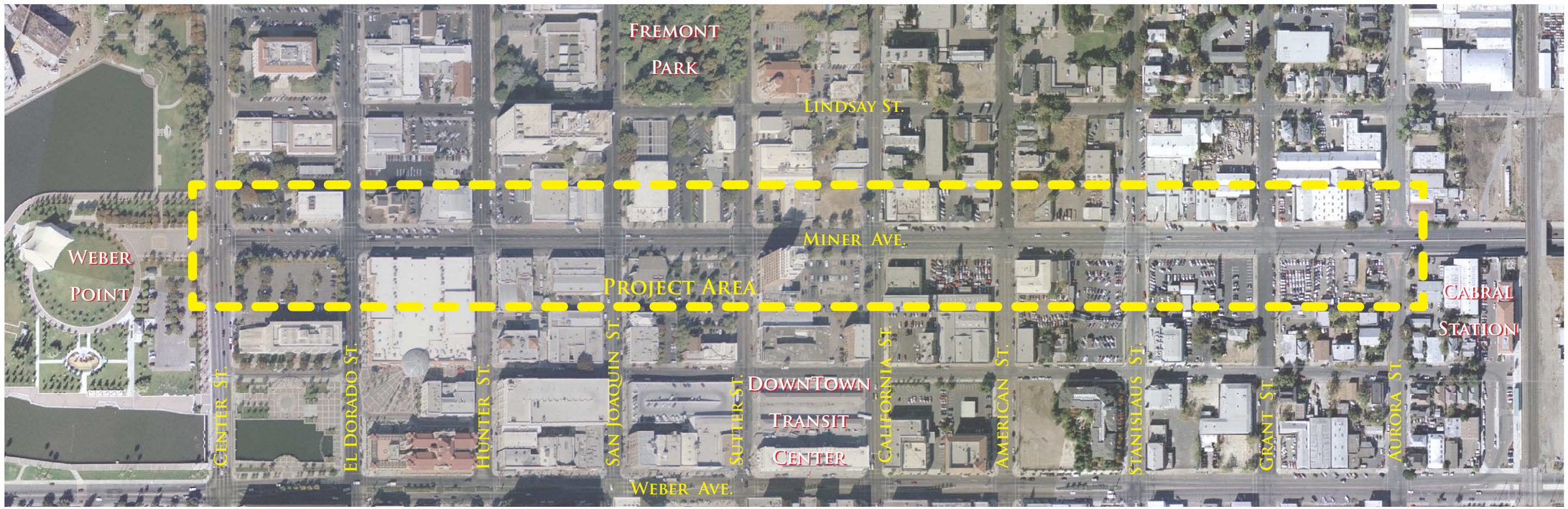
The City of Stockton (City) and the San Joaquin Regional Rail Commission were awarded a grant in 2009 from the State Department of Transportation (Caltrans) to prepare the Miner Avenue Streetscape Plan (MASP). The purpose of the MASP is to develop a comprehensive design for the corridor that establishes Miner Avenue as a prominent "complete street," emphasizing pedestrian amenities and multi-modal transportation between the Robert J. Cabral Rail Station and Weber Point. The plan also includes recommendations for future building locations, proposed land uses, and façade enhancement guidelines to activate the street with pedestrian-oriented storefronts, signage, and lighting. This plan enables the City to position this ten block corridor for capital funding, grants, and private investment.

B. Project Study Area

The MASP provides recommendations for improvements within the public right-of-way (ROW) and it makes land use and building massing recommendations for the first half-block located north and south of the corridor. The ten block plan area is defined by Aurora Street on the east and Center Street on the west.

C. Study Funding

The City Council approved a resolution on August 5, 2008 to submit a grant application to the San Joaquin County Council of Government's (SJCOG) for the Measure K Smart Growth Incentive Program (MK-SGIP). SJCOG approved the City's application in October 2008. The primary objective for the funding was to create a complete street plan for Miner Avenue, providing pedestrian and bicycle amenities within the public ROW. Reducing vehicle trips and enhancing air quality are also desired outcomes for the grant funding.



Vicinity Map

II. EXISTING CONDITIONS EVALUATION

Roadway as-built maps, surveys, and previously-approved or drafted land-use plans and land entitlements for the parcels in the plan area were thoroughly reviewed before beginning the MASP. The key findings relating to the MASP are noted below.

A. MASTER PLAN CONSISTENCY

General Plan Update 2035:

The MASP is consistent with the recently adopted 2035 Stockton General Plan Update.

Cabral Station Master Plan:

The MASP is consistent with the Cabral Station TOD Master Plan Update that the San Joaquin Regional Rail Commission adopted December 18, 2007.

Downtown Stockton Strategic Action Plan:

The MASP is consistent with this strategic plan that recommends high density residential and supporting mixed use commercial near the Cabral Station and mixed-use retail and office uses along Miner Avenue near the station

City of Stockton Bicycle Master Plan (BMP):

The MASP is consistent with the 2007 plan; however, the proposed addition of Class 2 bike lanes on Miner Avenue should be reflected in the next update of the plan. The MASP also makes recommendations to provide additional linkages between the improvements on Miner Avenue and those provided in the 2007 BMP, as shown on the "Bike & Pedestrian Connections Plan" page 11.

B. Right-of-Way Review Results

Existing Right-of-Way:

The majority of the streetscape recommendations in the MASP are for improvements located within the existing public ROW for Miner Avenue. Improvements extend into the adjacent ROW of streets that cross Miner Avenue in a few instances. As-built documents and Assessor's Parcel Maps were used to establish the existing ROW for Minor Avenue; the ROW should be field surveyed and verified with title reports to provide a basis for preparing final plans and specifications for construction.

Future Right-of-Way:

The plan provides for a future elevated "Personal Rapid Transit" (PRT) facility along the south side of the street. The PRT operation is anticipated to be located within the on-street parking area, above the parked vehicles, and extend from Cabral Station to Weber Point. An easement should be dedicated for this use at a time the City and the San Joaquin Regional Rail Commission determine appropriate.

The MASP also includes a recommendation to build an "elevated pedestrian bridge" connecting the existing Downtown Transit Center and the PRT in the mid-block area between Sutter and California streets (see page 36). Ideally, this facility would be incorporated into a future building/development scenario for the vacant parcels located in this mid-block area so that the structure becomes a seamless architectural element connecting the two transit facilities. An easement or dedicated parcel should be created to provide for this connection.

C. Property Boundary Determination

Some privately-owned buildings and/or fences appear to encroach into the Miner Avenue ROW. The MASP assumes that any building encroachments will be accepted and incorporated into this plan as is. Where buildings are removed and new buildings built, they are assumed to be built outside the Miner Avenue ROW. Any encroaching fences are assumed to be relocated or replaced on an as-needed basis, as each block is constructed.

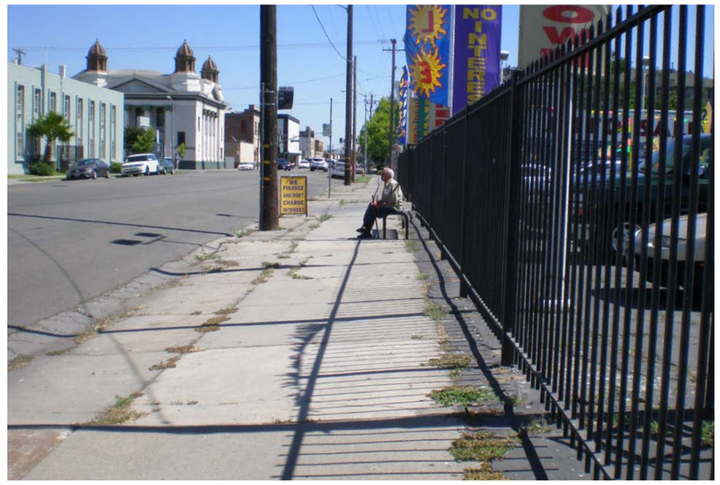
D. Transportation and Circulation

The existing Minor Avenue roadway has two travel lanes in each direction and a center turn lane. In addition, diagonal parking, interspersed with some parallel parking, extends along the ten block corridor. Much of the parking is loosely defined, although some spaces are metered. The roadway has excess capacity, according to the traffic analysis conducted for the 2035 General Plan Update. Miner Avenue is designated as a City Truck Route. The City defines this route per Caltrans standards as a "California Legal 65," which designates this roadway for large trucks as defined by the Federal Government, and requires a large turning radius at each intersection. The MASP incorporates these truck route criteria

E. Driveway Abandonment

Numerous driveways have curb cuts along the 10 block corridor. The long-term MASP goal is to eliminate all driveways as properties are redeveloped for the more pedestrian-oriented uses recommended in this plan. Some existing driveways are not being used where buildings have been remodeled to remove garage doors, or where vehicular access to the parcel has been altered or eliminated, and can be closed. The MASP preserves actively-used driveways. Each property should be reviewed to determine whether the driveway should be eliminated, minimized, or consolidated with adjacent driveways as the plan is implemented.

Abandon Driveway Example



Right of Way Encroachment

F. Major Utilities

Water Service:

Two water mains running along the majority of Miner Avenue provide water service to the corridor. A 4-inch line exists along the northern side of Miner Avenue from El Dorado to Aurora streets, and an 8-inch line exists along the southern side from San Joaquin to Aurora streets. Also, a larger, 12-inch main line runs along the northern side of Miner Avenue from Center to El Dorado streets. Several 12-inch main lines and one 33-inch main line cross Miner Avenue and connect with the main lines running along Miner Avenue. Available GIS site data indicates that the water main lines running parallel to Miner Avenue are located under the future curb and gutter. Both of these water lines should be relocated within the future roadway, so that any future connections or repairs will not require altering new curb and gutter sections. Additionally, a 4-inch water line does not provide sufficient capacity for fire protection and should be replaced with a minimum 6-inch water line.

Sanitary Sewer Service:

Sewer main lines range from 6 to 12 inches along Miner Avenue, according to available GIS data. Sewage from sites adjacent to Miner Avenue flow through gravity pipes to one of two trunk sewers bisecting the site (an 18-inch line along El Dorado Street and a pipe of unknown size along Grant Street). The condition and capacity of the existing sewer system on site is unknown; however, proposed construction activities are unlikely to adversely affect the existing sewer system. No work on the sewer system is currently proposed, except for adjustments to existing manhole elevations.

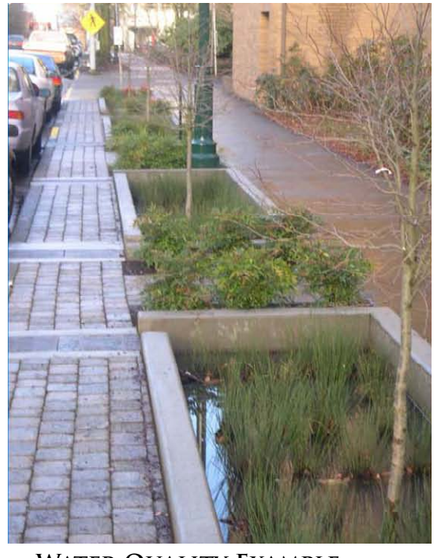
Drainage:

Minor Avenue's existing topography is relatively flat. Storm water falling on the site, and some adjacent properties, flows overland to gutters and into drainage inlets, generally located at the street corners. The storm water then gravity flows through pipes to its ultimate outflow into McLeod Lake near the Weber Point Events Center. A single 72-inch storm drain pipe bisects the site at the intersection of Miner Avenue and American Street and flows in a northeast to southwest direction. Existing drainage inlets on site flow into this 72-inch main line via pipes located under the streets perpendicular to Miner Avenue. Storm drain pipes generally do not run parallel to Miner Avenue within the project boundaries.

The site is proposed to be regraded to channel rainfall runoff to midblock stormwater planters located in each block on each side of the street. The majority of the existing drain inlets on site will need to be removed because the existing drain inlets are at the street corners and because the proposed curb returns at those corners will be relocated and enlarged. Additionally, the street will need to be regraded to flow to the stormwater planters instead of to the street corners. The benefits of constructing stormwater planters, which are discussed later in this report, will help offset the added cost of regrading the street.

Existing Drain Inlet

Each storm water planter will have an overflow inlet, which will be connected to the existing storm water collection system. New storm water piping will be installed along parts of Miner Avenue to channel the excess flow from the storm water planters to the existing collection system. All the additional piping will be located within Miner Avenue because the site is periodically bisected by the existing storm water collection system. Storm water pipes are not expected to need to be extended offsite to drain properly. Additionally, the total storm water flow will be decreased, since the proposed development will increase permeable area onsite. Thus, the existing storm water system will not need to be enlarged.



Water Quality Example

Electric Service:

Both overhead and underground electrical conduits provide electrical service to the site and properties adjacent to Miner Avenue. Underground electrical service is provided between Center and California streets. Overhead electrical service is provided between American and Aurora streets. Information on the existing underground electrical system is very limited. Only miner relocation of services or boxes is expected to be required to accommodate the proposed project changes; however, the existing overhead services are proposed to be relocated underground. Additionally, most of the existing traffic lights will need to be moved because the curb returns at each intersection will be relocated. Electrical service will need to be provided to these new locations.

Gas Service:

Information on existing gas service is not available, and no changes are proposed in project-area gas service. The potential presence of gas pipes should be thoroughly surveyed to determine if gas pipes exist within the site, and contractors should take care to avoid and protect gas pipes during construction.

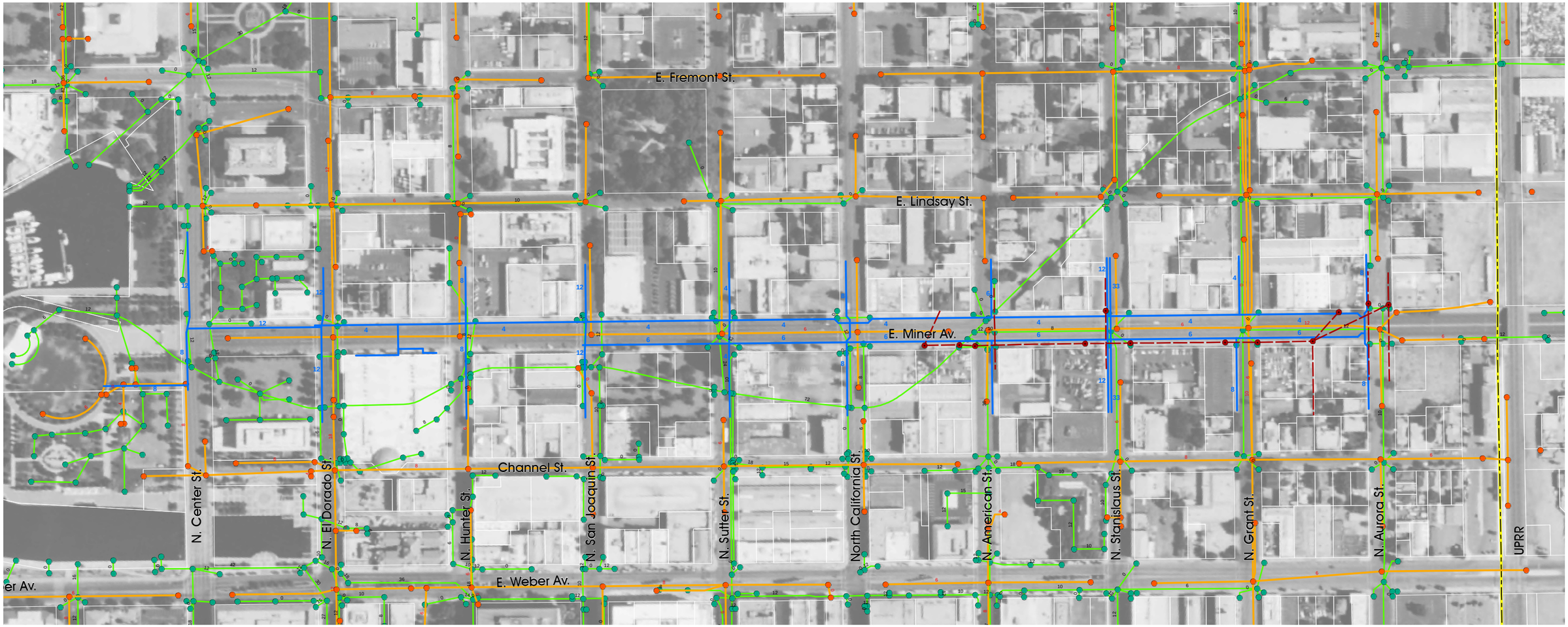
Abandon Railway Track:

Two sets of tracks for two-way streetcar traffic were located within the Miner Avenue ROW for many years. Records indicate these tracks were completely removed from the MASP's ten block corridor; however, this information needs to be confirmed through additional site survey and field inspections prior to implementing the plan.

Historic Trolley

Fiber Optics/Data Service:

Information on fiber optic and data service in the project area is not available, and no changes in project-area fiber optic and data service are proposed. The project area should be thoroughly surveyed to determine the presence of these services, if any, and to confirm that new construction does not involve any conflicts.



LEGEND:

- Midtown Redevelopment 2009
- Existing Storm Points
- Existing Sanitary Sewer Points
- Existing Power Poles
- Existing Water Pipes
- Existing Storm Drain Pipes
- Existing Sanitary Sewer Pipes
- Existing Overhead Lines

N

50' 0 100'

Existing Utilities

III. OPPORTUNITIES AND CONSTRAINTS

A. Public Outreach and Input

Community Meetings:

Two meetings were conducted with the community to introduce the project and to gather input for the plan. The community was introduced to the project objectives and shown the proposed plans and some alternative cross sections for the streetscape in the first meeting (July 14, 2010). The community was also shown conceptual designs of the public gathering spaces proposed along the corridor. Meeting attendees registered significant support for the project, in general, with consensus that a Class II bike lane is a high priority and that it justifies converting diagonal to parallel parking along the corridor.

The preferred streetscape design was presented at the second meeting (January 14, 2011), including details and plan refinements, and block-by-block plans with a photo-simulation of the completed improvements. Meeting attendees expressed significant support for the streetscape design presented, and the consulting team was asked to proceed with the MASP.

Land-Owner Meeting:

A direct mail invitation was sent to each land owner and occupant along the ten block corridor inviting them to review the MASP at a property owners meeting scheduled for June 23, 2010; however, the property owners did not attend

Downtown Stockton Alliance (DSA) Presentation:

The preliminary design was presented to the regular meeting of the DSA on March 16 2011. The board expressed its support for the plan and for the recommendation to expand the DSA boundary to include the 10 block corridor.

Interagency Meetings:

Several meetings were conducted with stakeholder agencies, including representatives from the San Joaquin Rail Commission, the Public Works Department, the San Joaquin Rapid Transit, and the Planning Department.

B. Development Analysis

Economic and Planning Systems (EPS) prepared a report was prepared for the project area; its key recommendations are summarized below. The full report is given in Appendix E.

Real Estate Conditions

Corridor conditions vary by block. Private investment and pedestrian activity are concentrated in and around the cinema multiplex area near Weber Point at the Corridor's west end. The value and intensity of economic uses appears to be generally stable between the Weber Point and North Sutter Street intersections. Economic values generally decline from North Sutter Street to Cabral Station. This segment is comprised of car lots, vacant sites, and underutilized buildings.

The Corridor has low lease rates and land values compared with other areas in the City. The typical lease rate for commercial space along Miner Avenue and the immediate vicinity is $0.40 to $0.60 per square foot per month. Nearby, downtown space is much stronger (over $1.50 per square foot). The evidence of public and private investment is particularly strong south of the Corridor, which features well-maintained structures, such as churches, retirement apartments, and State and local government buildings.

The MASP proposes a set of improvements that will intensify the Corridor's linkages with downtown and serve as a catalyst for private investment in the Corridor. Moreover, the MASP will give the Corridor a greater sense of place and enhance its vitality by creating a safer and more pedestrian-friendly environment.

The types of proposed streetscape improvements in the MASP have been shown to enhance conditions for both business owners and residents in cities throughout the United States. Indeed, as the Complete Streets Coalition documented, "Street design that is inclusive of all modes of transportation, where appropriate, not only improves conditions for existing businesses, but also is a proven method for revitalizing an area and attracting new development." As an example, Washington, DC's Barracks Row was experiencing a steady decline in commercial activity with uninviting sidewalks, lack of streetlights, and speeding traffic. After multiple design improvements, including new patterned sidewalks, more efficient public parking, and new traffic signals, Barracks Row attracted 44 new businesses and 200 new jobs. Economic activity on this three-quarter mile strip (measured by sales, employees, and number of pedestrians) has more than tripled since the inception of the project.

In a similar study conducted by the University of Pennsylvania (Wachter & Gillen, 2006) entitled "Public Investment Strategies: How They Matter for Neighborhoods in Philadelphia" the impact of similar corridor investment on surrounding home values is 11 percent higher within a half mile and 23 percent within a quarter mile.

Commercial Properties on Miner Avenue

Corridor Revitalization Recommendations

Three redevelopment imperatives were developed to be considered as the MASP is developed and implemented. These imperatives also serve as criteria to guide the preparation of policy recommendations:

- Imperative #1: Public streetscape investments are most successful when they leverage past, present, and near-term planned private investment. Corridor streetscape investments should be phased so that they complement other revitalization efforts. Past, present, and near-term investments along the Corridor include waterfront improvements and new retail and entertainment establishments located near Weber Pointe, as well as future plans to introduce high speed rail at Cabral Station.
- Imperative #2: Concentrated retail districts are often limited to about 1,000 linear feet, and are characterized by nodes of concentrated activity connected with neighborhood housing, parks, civic, and other uses. Public spaces in the Master Plan should be planned for Corridor locations that receive the most concentrated pedestrian activity and offer the greatest potential for retail expansion.
- Imperative #3: Retail corridors should be concentrated at highest value intersections. This imperative should guide future efforts to expand retail along the Corridor.

Implementation Recommendations

The Corridor offers a multitude of strengths that can help position it as a TOD hub in the City and greater Central Valley. High speed rail will permit the Corridor to serve as the key Central Valley link to a broader transportation network in the State. In addition, redeveloping the Corridor will provide denser, multi-modal housing to support the population growth projected for the region.

The timing for feasible redevelopment of the Corridor is uncertain, given current real estate market conditions in the City and nationwide. Market conditions will also need to improve before a precise development program can be identified. Thus, current efforts should focus on near-term actions that could help prime the area for redevelopment once the market recovers.

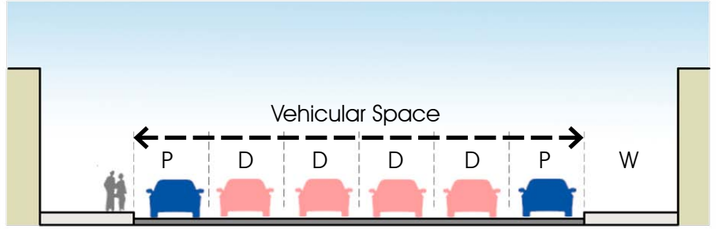
C. Circulation and Access

Lane Reductions:

The 2035 General Plan Update identified the Miner Avenue corridor as level of service (LOS) A (the highest) with the average daily trips (ADT) for Miner Avenue between 4,400 and 9,700 (2001 data). The MASP proposes to eliminate one lane in each direction along the street which will likely keep the roadway at LOS A but could potentially lower it to LOS B. This lane reduction permits expanding other pedestrian and bicycle uses within the existing ROW, and it allows the project to achieve a key goal of creating a "complete street" that balances the needs of multiple users. This impact will be verified through the traffic analysis conducted with the precise roadway plan.

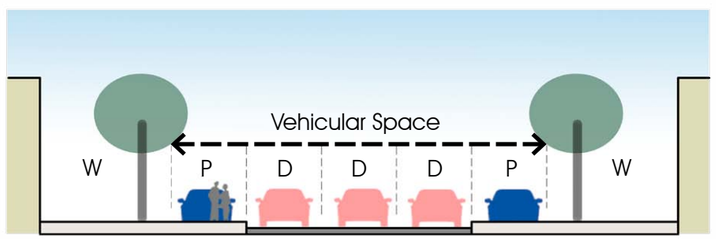
Bicycle Lanes:

The addition of Class II bike lanes in each direction along Miner Avenue is critical to achieving the goal of a multi-modal facility for the corridor. It also provides immediate transit access for bicycle users at Cabral Station. The proposed bike lanes will be six feet wide and extend the entire length of the corridor. In addition, the Miner Avenue bike lanes provide opportunities to improve the network of bike facilities within downtown Stockton with some minor amendments to the 2007 Bicycle Master Plan. These amendments are shown on the "Bike & Pedestrian Connections Plan (page 12). They include new Class II facilities on North Sutter, North California, and North Aurora streets, providing cross connections between Miner Avenue and the extended bikeway network. Extending the Class II facility on Miner Avenue four blocks east of this plan area to North Airport Way is also recommended.



Existing Roadway - Auto Dominated

W - Walking P - Parking D - Driving



Proposed Roadway - Pedestrian Dominated

Public Transit:

The recent investments in two public transit facilities adjacent to the Miner Avenue corridor act as catalysts for this plan. Cabral Station and the Downtown Transit Center are active facilities with both pedestrian and bicycle ridership that will directly benefit from the recommended Miner Avenue improvements. Providing for alternative modes of transportation benefits the community and reduces the carbon impact of the automobile on the downtown area. This plan helps to mitigate air pollution, as CEQA mandates, and as identified in the 2012 Climate Action Plan.

Miner Avenue does not currently have any bus stops and the San Joaquin Rapid Transit District does not plan any. No Minor Avenue bus stops are anticipated to be added, given the location of the Downtown Transit Center, which is just a block south of the center of the corridor, and the presence of numerous stops on nearby cross streets. If bus stops or shelters are added later, they can be located within the planter strip areas adjacent to intersections with minimal impact to the conceptual plan.

Community Gathering Places:

The MASP creates a complete street solution for the 10 block corridor. The most important elements of the plan are the provisions for people to gather and enjoy the public space within the ROW. This gathering will happen along the public sidewalk, at designated seating areas, and at the two proposed public spaces, which are described in detail in the next section.

Neighborhood Connections:

Each of the streets connecting to Miner Avenue is important to the success of this corridor. Providing complete street facilities for these adjacent streets yields a future opportunity to further enhance the Corridor.

Automobile Parking:

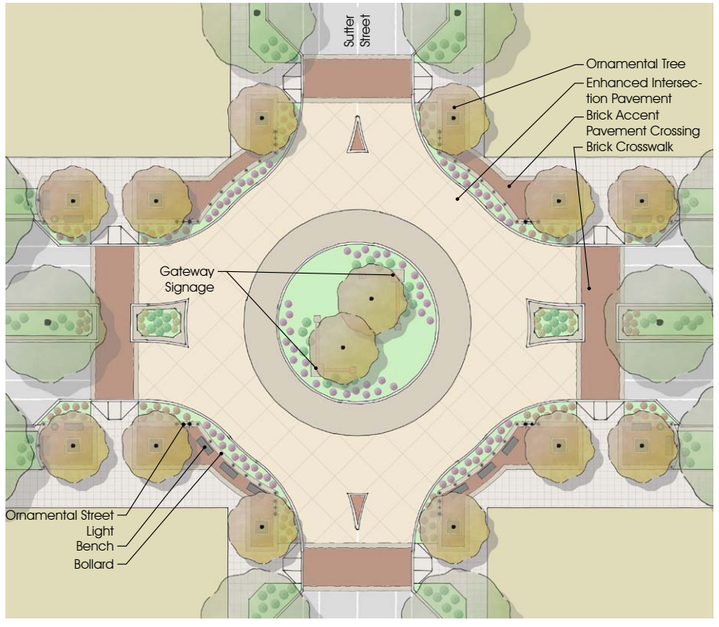
Converting Miner Avenue's diagonal parking to parallel parking is critical to the success of the Corridor as a multi-modal, complete street. This change creates additional space needed for the Class 2 bike lanes and sidewalk enhancements. It also makes the bike lane safer by eliminating the backing vehicle conflict with the bike lane and replacing it with a safer forward vehicle movement as the parked vehicle leaves the parking space. The MASP's parallel parking change will result in a loss of 69 spaces along the 10 block Corridor, or an average of 3.5 spaces per block (a total of 142 parallel spaces will replace 211 diagonal spaces). On-street parking on adjacent cross-streets is considered a Corridor benefit, because these parking spaces are rarely occupied, and they can compensate for the net loss of 3.5 spaces per block. Another 30 spaces will be gained along the Corridor as the plan builds out and the existing driveways are removed. The MASP will ultimately reduce on-street parking a total of 39 spaces compared with today, or just 2 on each side of each block. This loss is considered to be manageable and not a significant adverse effect on local businesses.

Diagonal On-Street Parking - Existing

Parallel On-Street Parking - Proposed

Circulation:

- Truck Route: The City Truck Route designation for Miner Avenue requires providing large turning radiuses at each intersection to accommodate large trucks, rather than incorporating "bulb-outs" at intersections to minimize cross walk distances for pedestrians as would typically be done with a complete streets plan.
- Turn Lanes: The MASP provides minimal left turn lanes along the corridor so that more space in the median can be dedicated to landscaping. The plan will eliminate northbound turns at Hunter, San Joaquin, and American streets, as well as southbound turns at American Street. These turn changes are shown on the "Opportunities & Constraints" exhibit (page 13).
- Roundabout: The MASP includes a roundabout at the intersection of Miner Avenue and Sutter Street. This location is centrally located along the corridor and is adjacent to the Downtown Transit Center, providing a good location for directional signage to the transit center. The geometrics of the roundabout in this location will fit within the existing ROW and meet industry standards for truck and fire turning movements



Automobile Round-about at Sutter Street

D. Crime Prevention

Environmental Design:

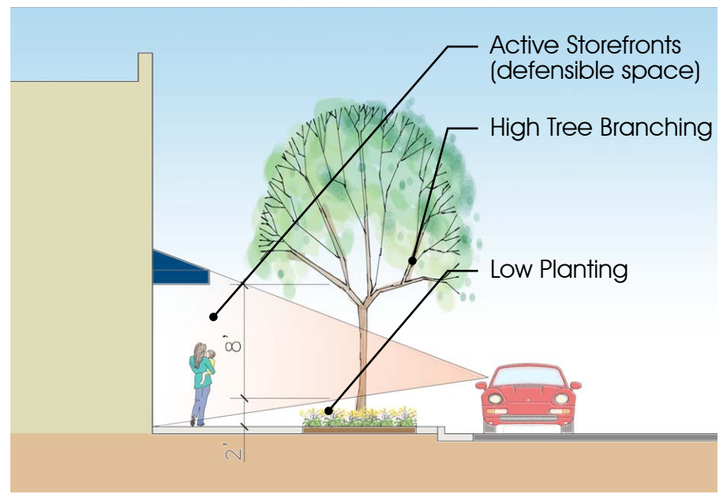
The design principles of Crime Prevention Through Environmental Design (CPTED) are incorporated into the MASP. The relevant principles used include: clear definition of public and private spaces, night lighting, elimination of hiding places, plant material selection that leaves clear line of sight to all public areas from adjacent points of surveillance, and easy access for police and security patrols.

Lighting:

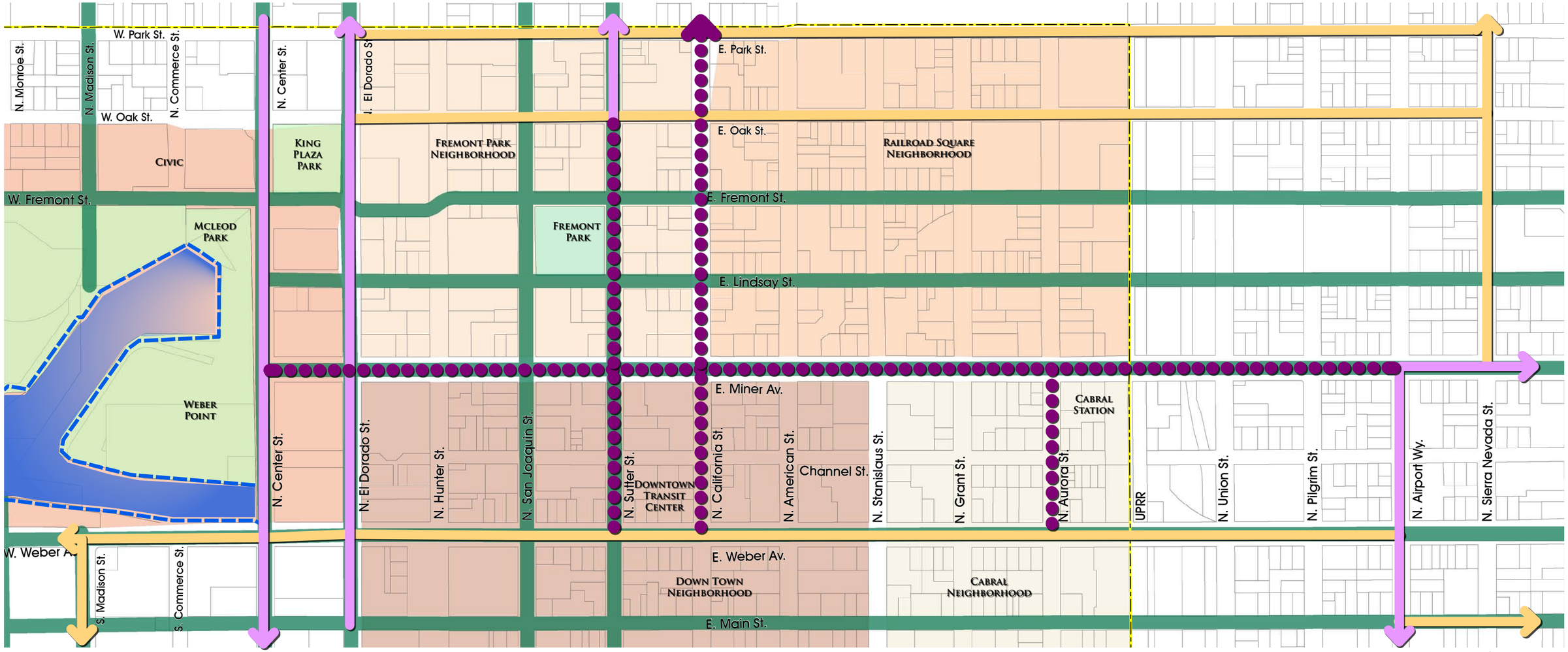
Using post-mounted lights throughout the corridor will ensure that the street is consistently lighted. The minimum brightness target for the finish surface of the multi-use trail is 0.1 foot candles, with an average closer to 0.2 foot candles. Bollard lights, niche lights, and adjacent building lights will provide additional lighting, depending on the adjacent land uses.

Visibility:

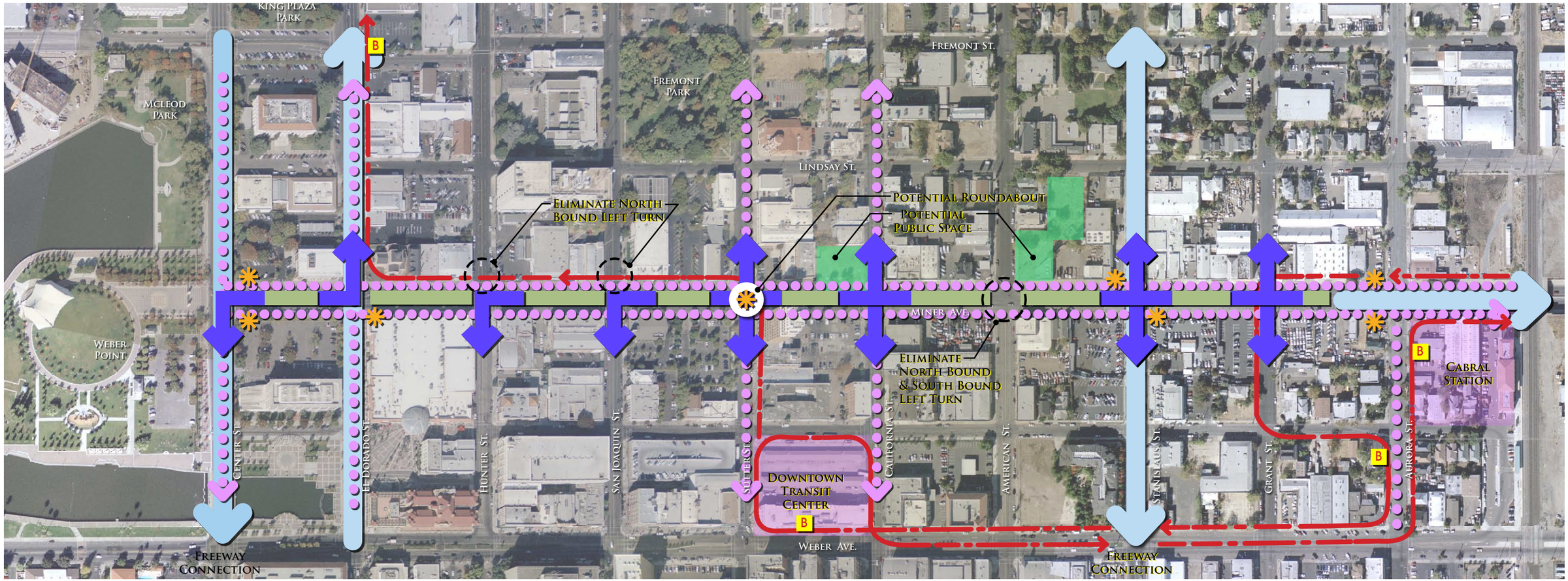
The MASP design guidelines (Section V) encourage architecture with active front building facades and windows along the corridor. This provides more visibility for the public ROW with "Eyes on the Street," a practice that promotes safety and self-policing of the street.



Clear Visibility Zone



Bike / Pedestrian Connection Plan - Proposed Class II Bike Lanes



LEGEND:

- Major Vehicular Connections
- Class II Bike Lanes
- Left Turn Pockets
- Landscaped Median
- Bus Rapid Transit Route
- B — Bus Stop
- Gateway Sign Monument Opportunities

N

50 0 100

IV. STREETSCAPE PLAN

A. ALTERNATIVES A, B, AND C AND THE PREFERRED PLAN

Three conceptual options were developed for City consideration. A preferred conceptual plan approach was then created with input from agency stakeholders (Rail Commission, Planning, and Public Works). The key consideration at this stage was to determine the feasibility of a Class I (dedicated, off-street) versus a Class II (dedicated, on-street) bicycle lane within the Miner Avenue ROW. Each option provides an option with the Personal Rapid Transit (PRT) and one without the PRT.

Option A: Class I Bike Lanes - Asymmetrical

This plan provides tandem Class I bike lanes along the north side of the street, located between the on-street parking and the pedestrian sidewalk. One travel lane in each direction is eliminated to accommodate the Class I bike lane, and the diagonal parking along the north side of the street is converted to parallel parking, and 8- to 10-foot wide sidewalks are the maximum that can be provided. This option provides a continuous center turn lane, minimal street tree planters, and little room for water quality planters. Option A-1 (with PRT) places the PRT within the planter space along the north side of the street, where it provides shade for the bike lane. Option A-2 (without PRT) allows for a larger planter area and large shade trees rather than smaller ornamental trees.

Advantages: Very safe for bicyclists; minimal impact on on-street parking and the center turn lane.

Disadvantages: Minimal sidewalk width; pedestrian/bicycle conflicts at intersections; limited access on the north side of the street between the parking area and the front door access to each building because of the dedicated bike lane.

Option B: Class I Bike Lanes - Symmetrical

This plan provides separated Class I Bike Lanes in the center of the street. One travel lane in each direction is eliminated, the diagonal parking remains, and the sidewalks are minimized at 8 feet in width. Option B-1 (with no turn lanes) provides a tandem Class I bike lane in the middle of the roadway, where the turn lane was previously located. The PRT is located in the center of the bike lane. Option B-2 (with minimal turn pockets and a median planter) provides a tandem Class I bike lane that meanders along the center of the roadway, avoiding the left turn pockets, as needed. The PRT is located on the south edge of the median planter and meanders with the turn pockets.

Advantages: Efficient bike lanes for high speed commuting.

Disadvantages: automobile/bicycle conflicts at intersections; limited or no left turn movements along the 10 block corridor; PRT access requires bridging to the center of the roadway; meandering bike lanes and PRT are undesirable for users.

Option C: Class II Bike Lanes - Symmetrical

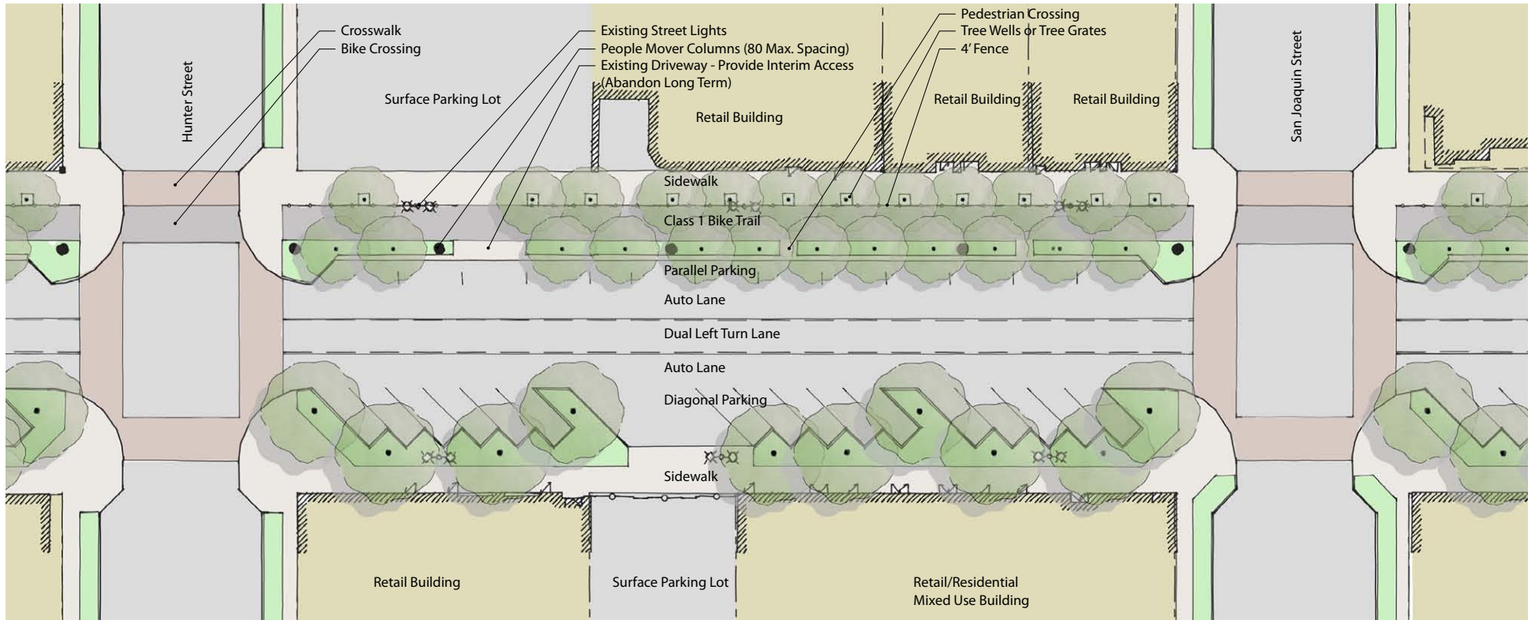
This plan provides Class II bike lanes on each side of the street between the on-street parking and the travel lane. The diagonal parking on both sides of the street is converted to parallel parking and the sidewalks are maximized at 12 feet in width. This option provides a continuous median with several left-turn pockets, maximum street tree planters and plenty of room for water quality planters. Option C-1 (with PRT) places the PRT within the parallel parking space along the north side of the street, where it provides shade for the sidewalk. Option C-2 (without PRT) allows for a larger street tree to be planted in the planter area.

Advantages: Balanced use of space for each user: pedestrians, bicycles and automobiles; traditional bicycle lane placement that is predictable for both bicyclists and motorists; maximized street tree canopy opportunity.

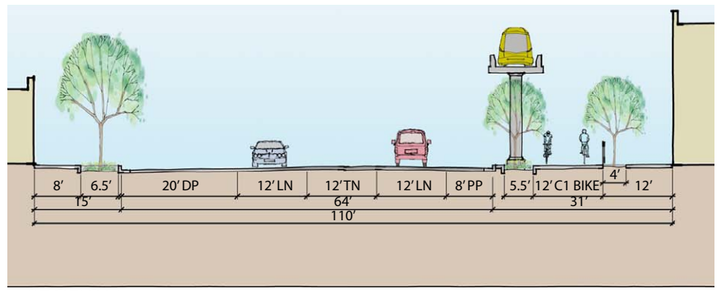
Disadvantages: Class II rather than Class I bike facility; less parking provided with parallel versus diagonal parking.

Preferred Plan: Modified Option C

Option C was determined to be the best approach for the streetscape plan because of its numerous benefits, including: equal emphasis on the pedestrian, bicyclist, and motorist; urban tree canopy planting opportunities; access between parking and doorways; center median planter and turn pockets; and symmetry between the north and south side of the street. One significant modification was made in Option C to become the preferred plan: the PRT will be located on the south side of the street (still within the parallel parking area) so that it can connect with the existing Cabral Station and the Downtown Transit Center facilities, without crossing the street. With this change in the location of the PRT, it was determined that a wider tree planter on the south side of the street would be desirable to provide more room for the trees adjacent to the PRT. The preferred plan provides a 12-foot planter and 12-foot sidewalk on the south side and an 8- to 10-foot planter and 8-foot sidewalk on the north side. This asymmetrical roadway solution results in a 26-foot pedestrian environment on the south side versus 20-foot on the north side.

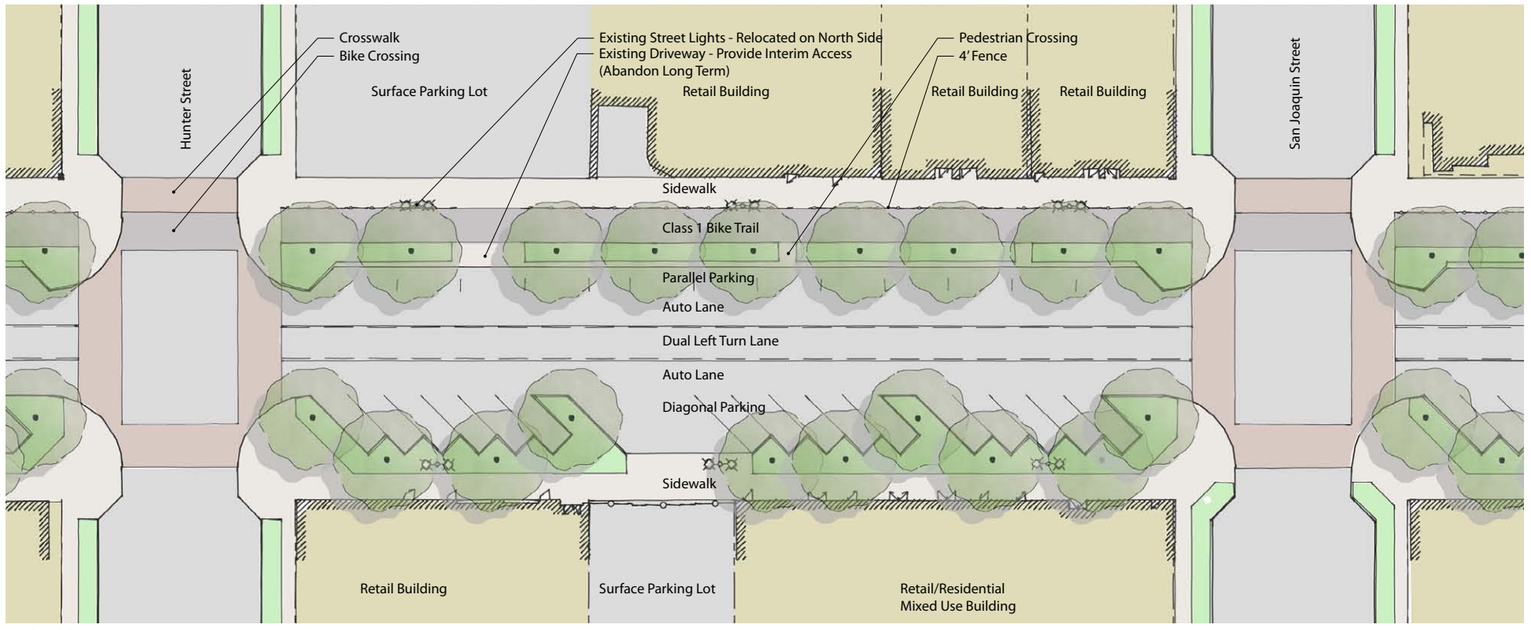


PLAN

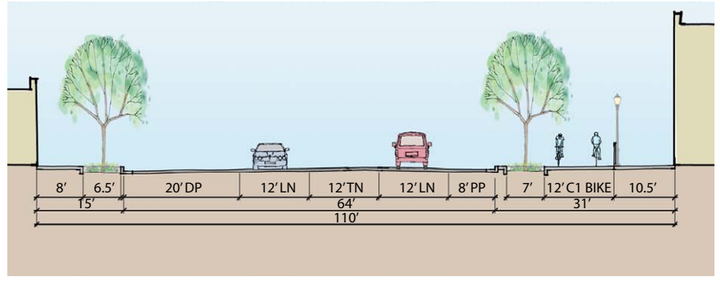


SECTION

Option A1

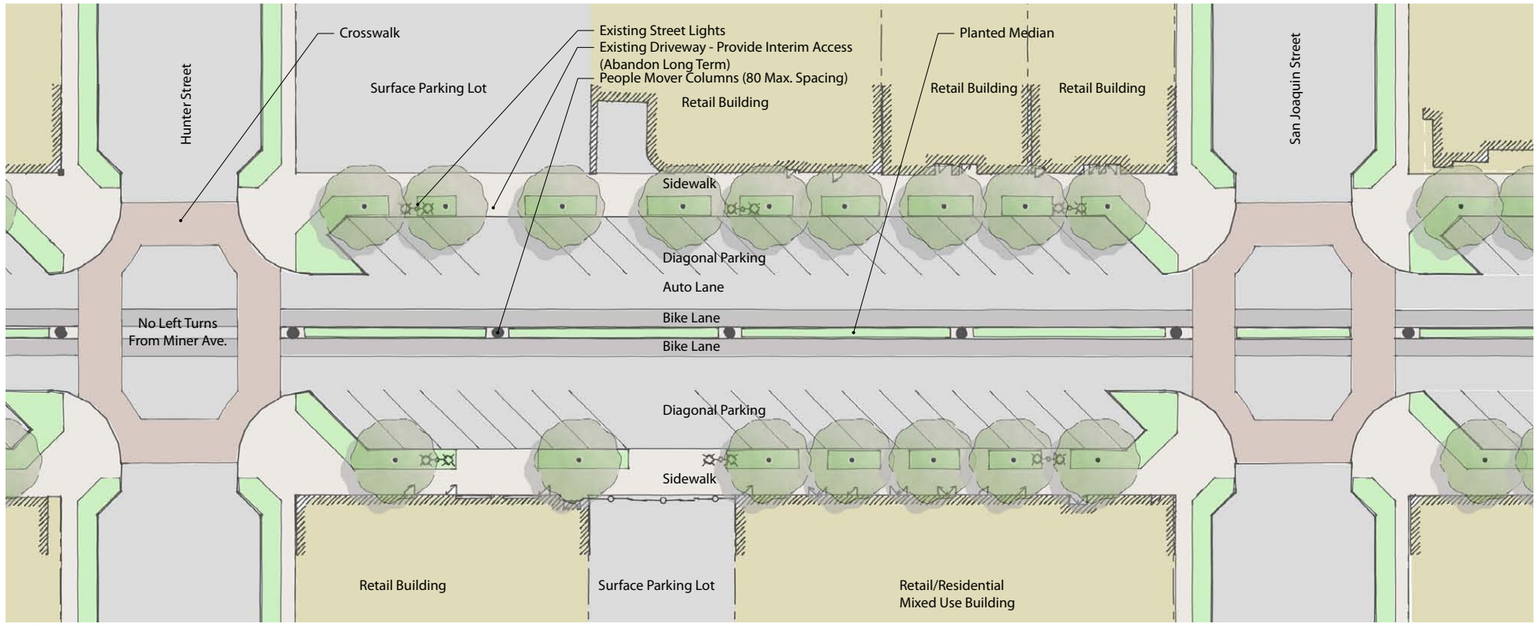


PLAN



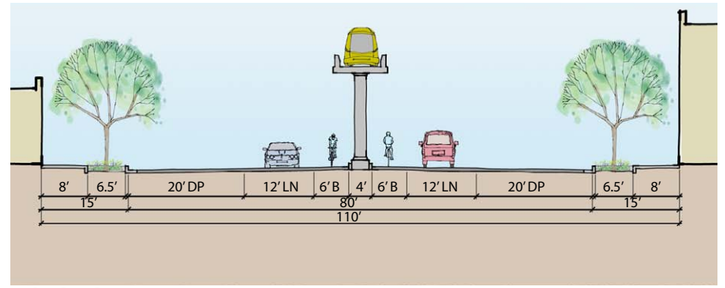
SECTION

Option A2 (Without People Mover)



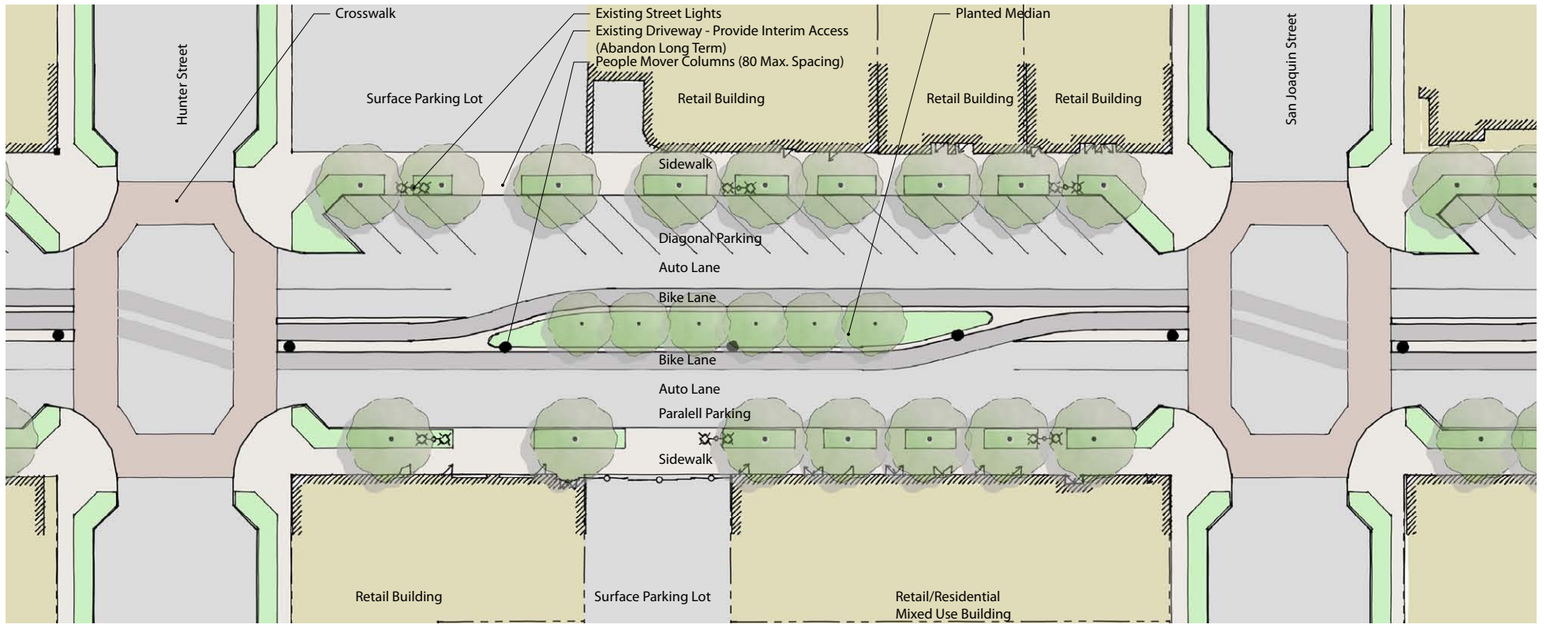
PLAN

CLASS I BIKE LANE CENTERED IN ROADWAY



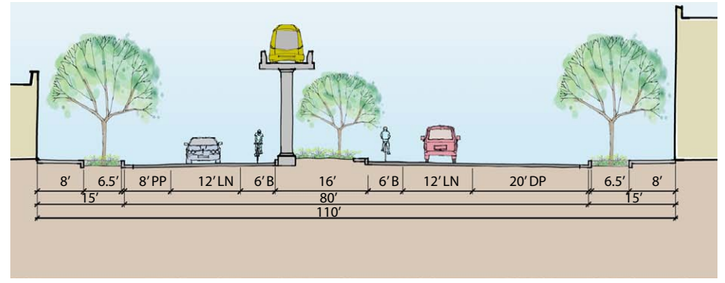
SECTION

OPTION B1



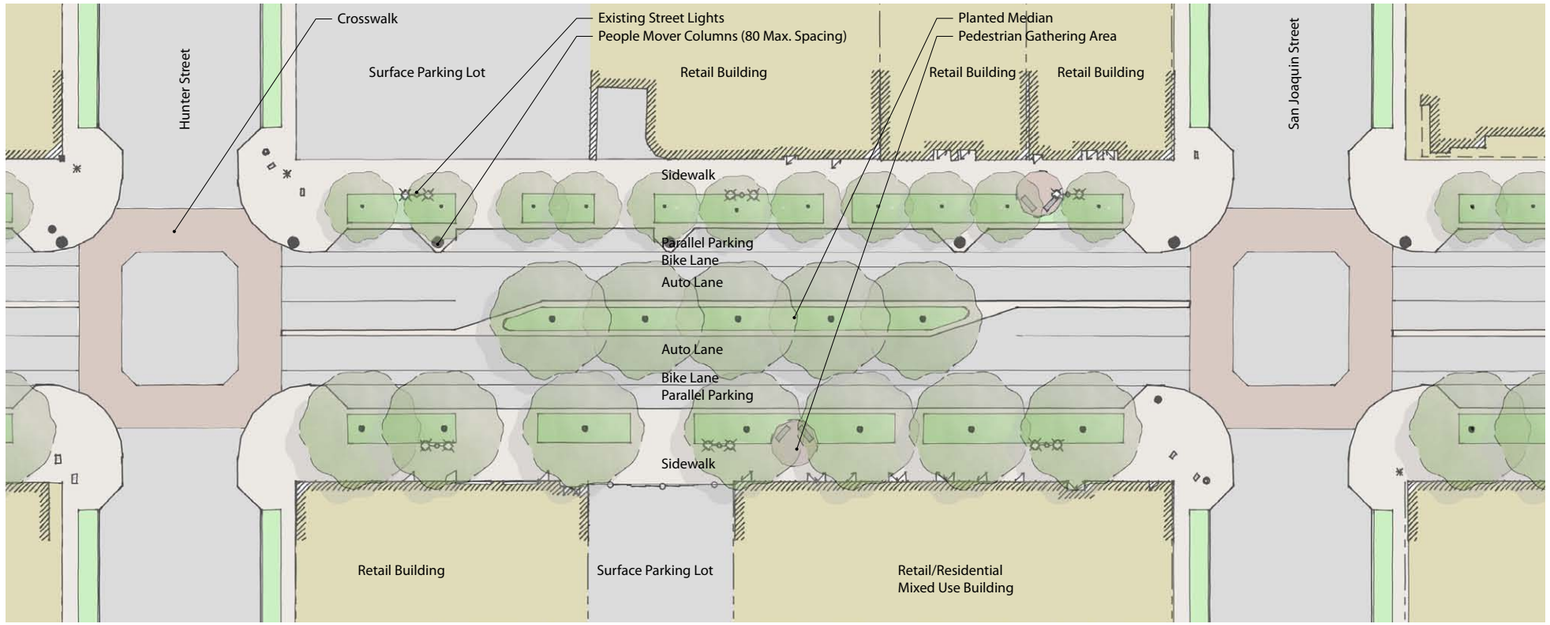
PLAN

PERSONAL RAPID TRANSIT (PEOPLE MOVER)

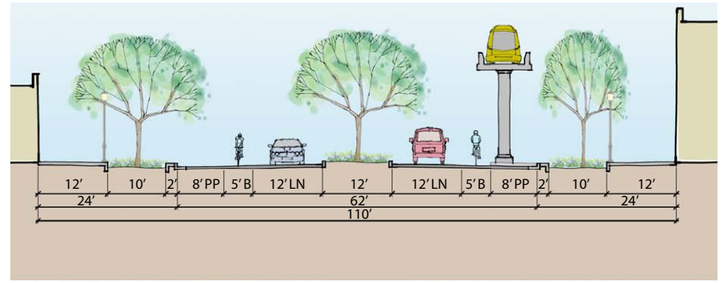


SECTION

OPTION B2 (WITH TURN POCKETS)

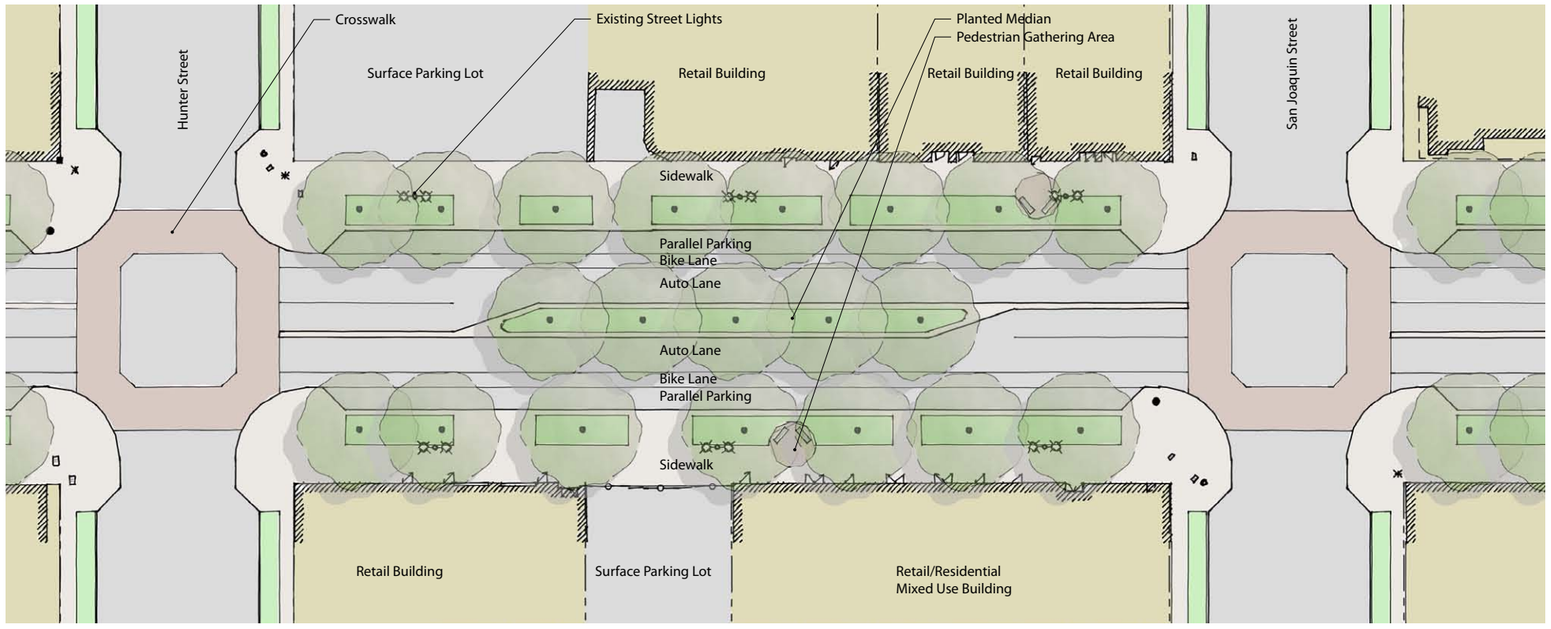


PLAN

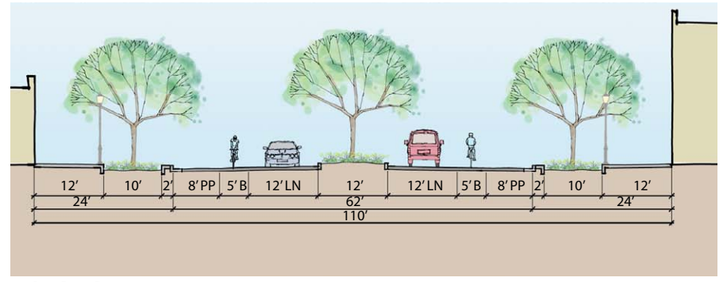


SECTION

Option C1

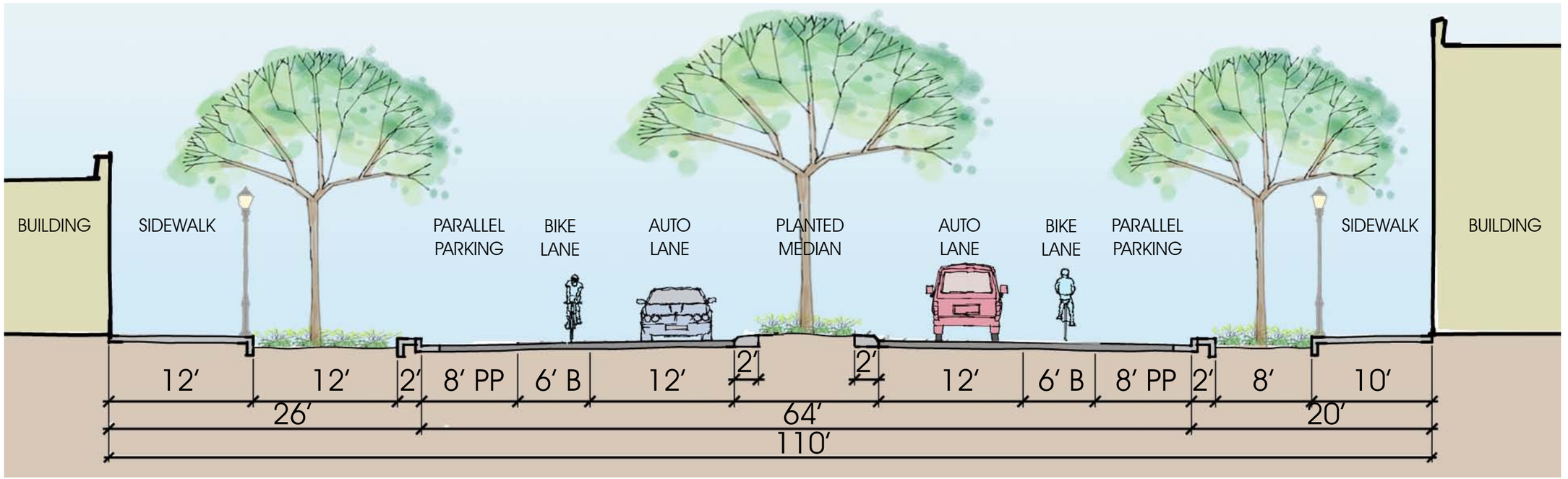


PLAN



SECTION

Option C2 (Without People Mover)


BUILDING
SIDEWALK
PARALLEL PARKING
BIKE LANE
AUTO LANE
PLANTED MEDIAN
AUTO LANE
BIKE LANE
PARALLEL PARKING
SIDEWALK
BUILDING
12′
12′
2′
8′ PP
6′ B
12′
2′
2′
12′
6′ B
8′ PP
2′
8′
10′
26′
64′
20′
110′

5′ 0 10′

B. Conceptual Streetscape Plan

The conceptual streetscape plan is presented block-by-block in plan view page 23-31. It is based on the preferred plan described above, and it provides clear direction for the 10 block corridor. The primary design features include:

Continuous Tree Canopy:

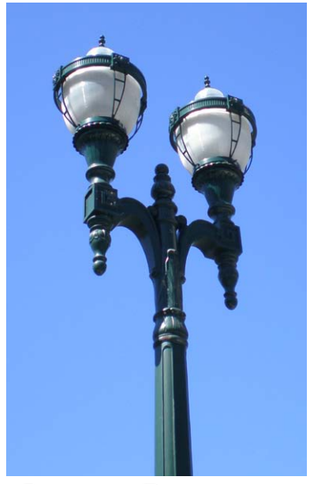
This plan ensures the maximum amount of shade for pedestrians, using large shade trees and some ornamentals. The trees are to be planted in a planter strip located between the curb and sidewalk and in the center median.

Understory Plantings:

The tree planters have a variety of low water use and low maintenance shrubs and ground cover plantings. Low height species are specified to keep views between the street and sidewalk open to surveillance and to prevent hiding places per the crime prevention guidelines noted in Section III-D above. The planters also incorporate water quality features for storm water, where feasible, with a goal of providing one on the north and south side of each block in the corridor.

Street Lighting;

The decorative lights currently installed on Miner Avenue between Center and California streets will be used throughout the entire corridor.



Existing Decorative Light

Site Furnishings:

Benches, lighting bollards, trash receptacles, and bike racks are provided along the corridor. These furnishings reflect the historic qualities of Cabral Station and the Weber Point Park site.

Enhanced Crosswalks & Intersections:

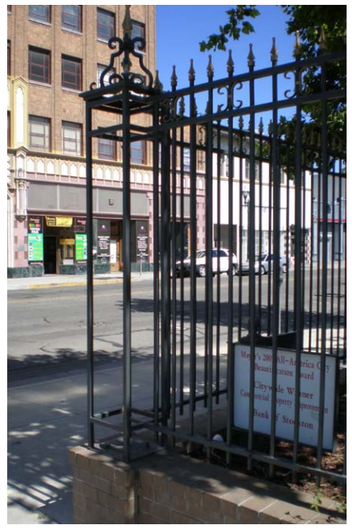
The crosswalks and intersections at each cross street along the corridor are enhanced with distinctive pavement materials to make it safer for pedestrians while also calling attention to Miner Avenue as a "signature street" within downtown Stockton.

Class 2 Bike Lanes:

The MASP provides for a continuous 6-foot wide Class 2 bike lane the length of the corridor, located between the travel lane and the parallel parking lane.

Property Fencing:

There are many properties along the corridor that have fences located adjacent to sidewalk. Where fencing occurs, it should be of a high quality similar to the Bank of Stockton property shown below.

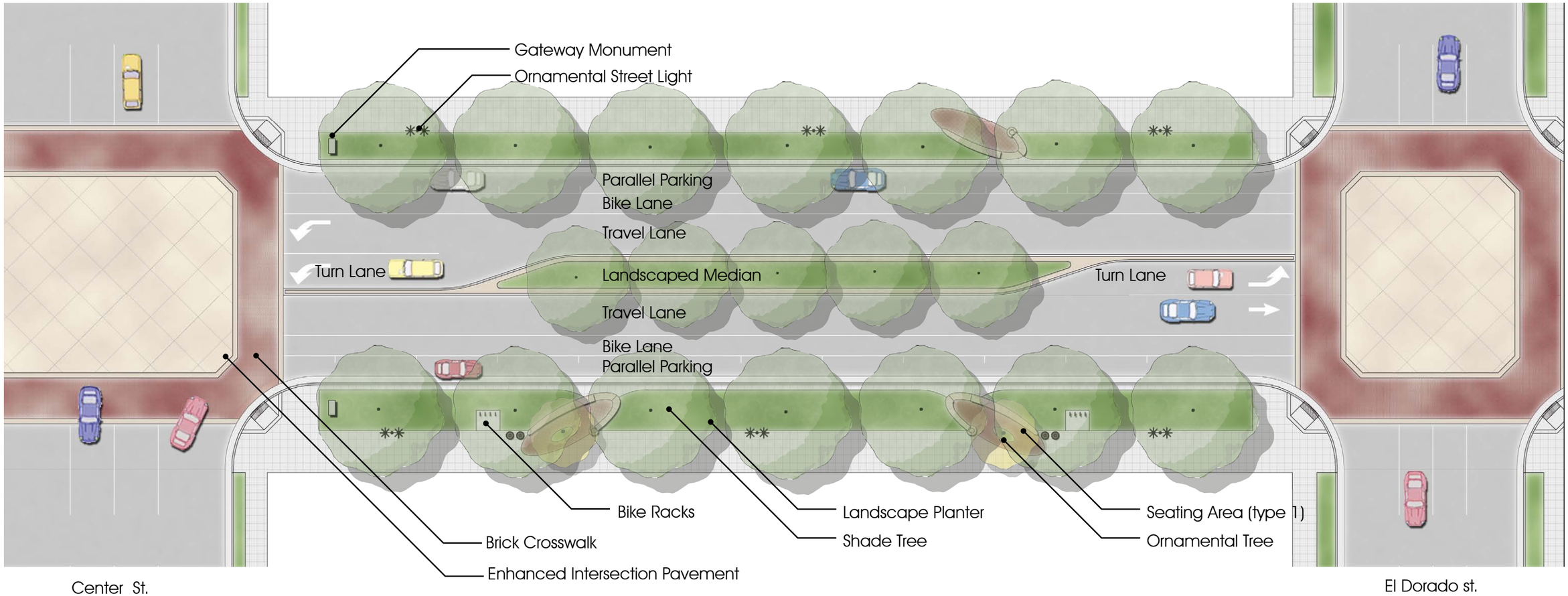


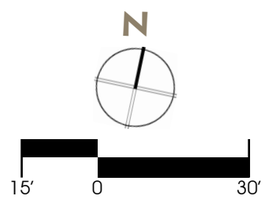
Existing Decorative Fencing

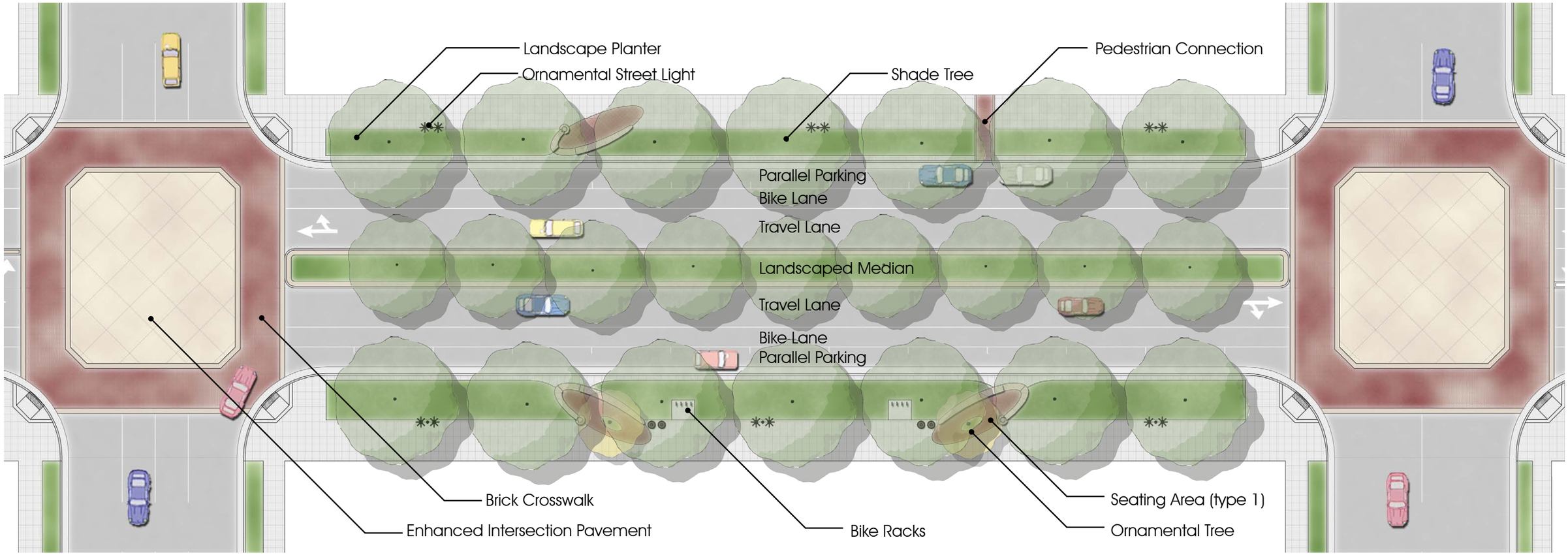
Existing Roadway

Potential Build-Out with Personal Rapid Transit People Mover

Proposed Roadway- Complete Street with Pedestrian and Bicycle Facilities


Gateway Monument
Ornamental Street Light
Parallel Parking
Bike Lane
Travel Lane
Turn Lane
Landscaped Median
Turn Lane
Travel Lane
Bike Lane
Parallel Parking
Bike Racks
Landscape Planter
Seating Area (type 1)
Brick Crosswalk
Shade Tree
Ornamental Tree
Enhanced Intersection Pavement
Center St.
El Dorado st.

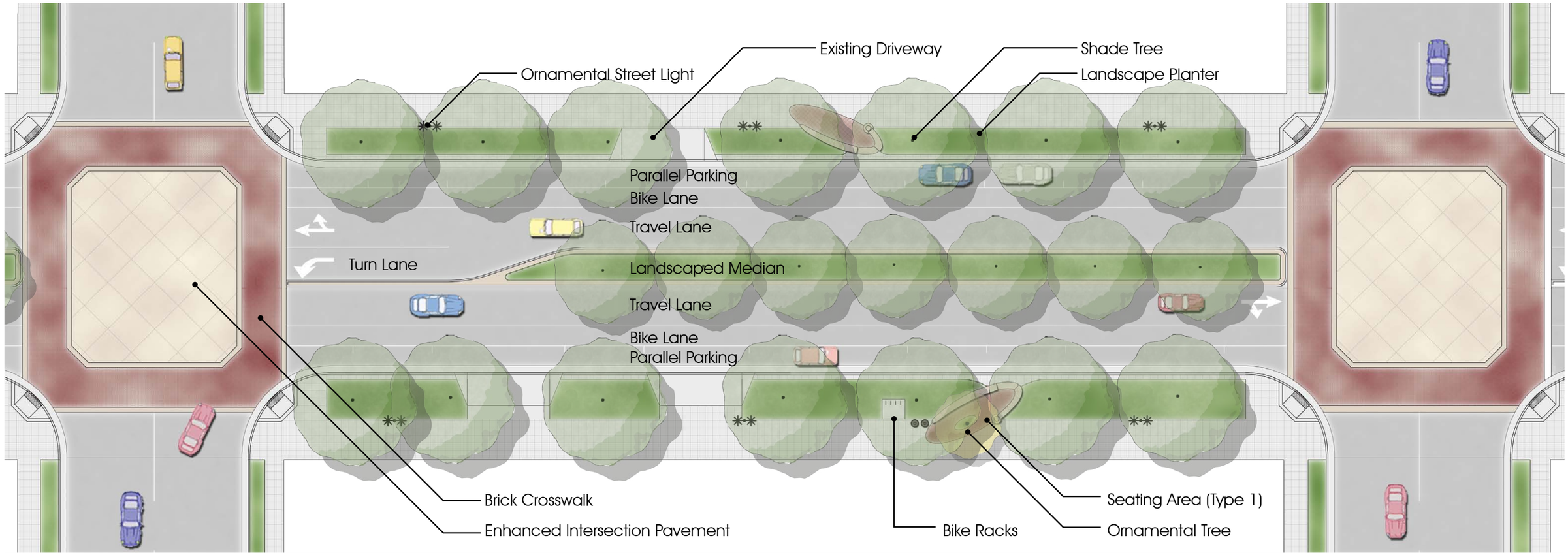

N
15'
0
30'

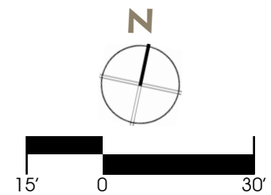


N

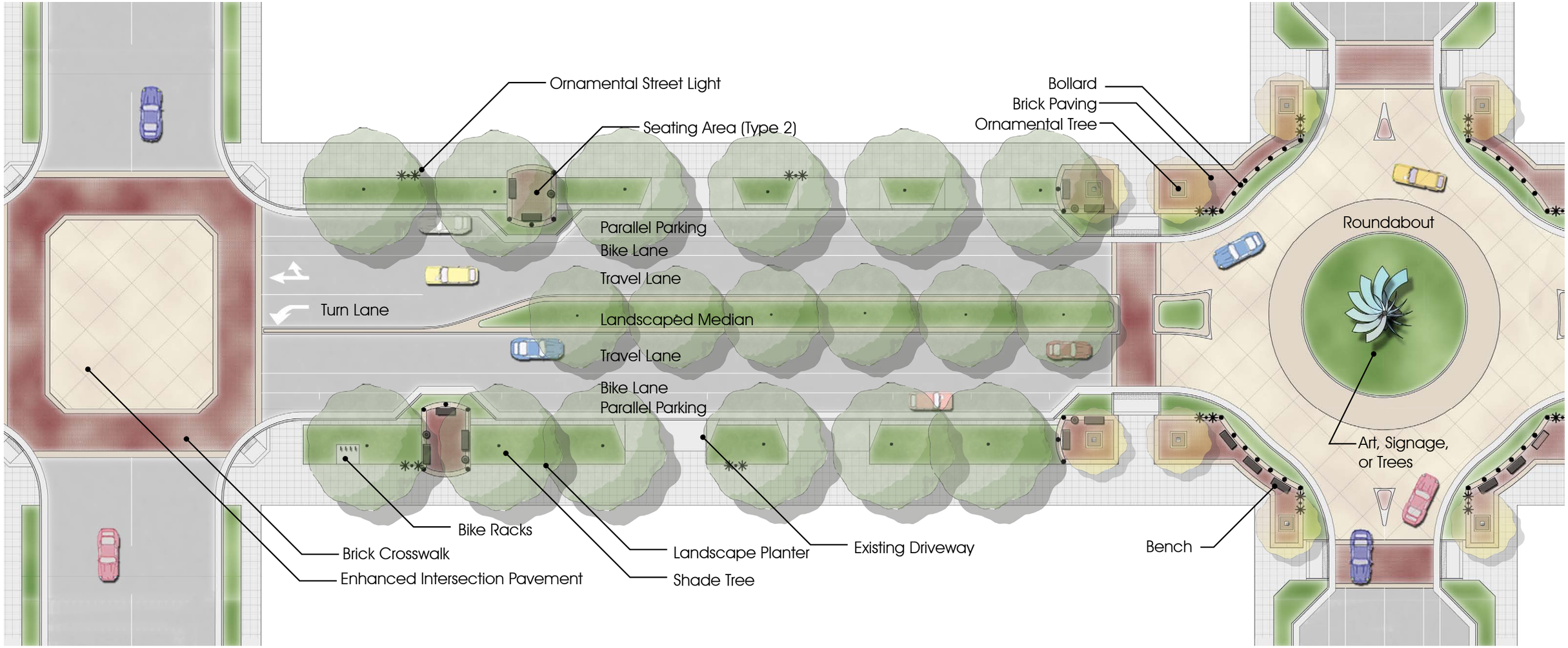
15′ 0 30′

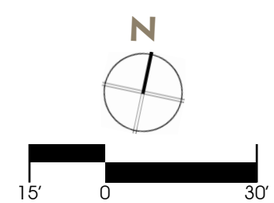
EL DORADO ST. TO HUNTER ST.



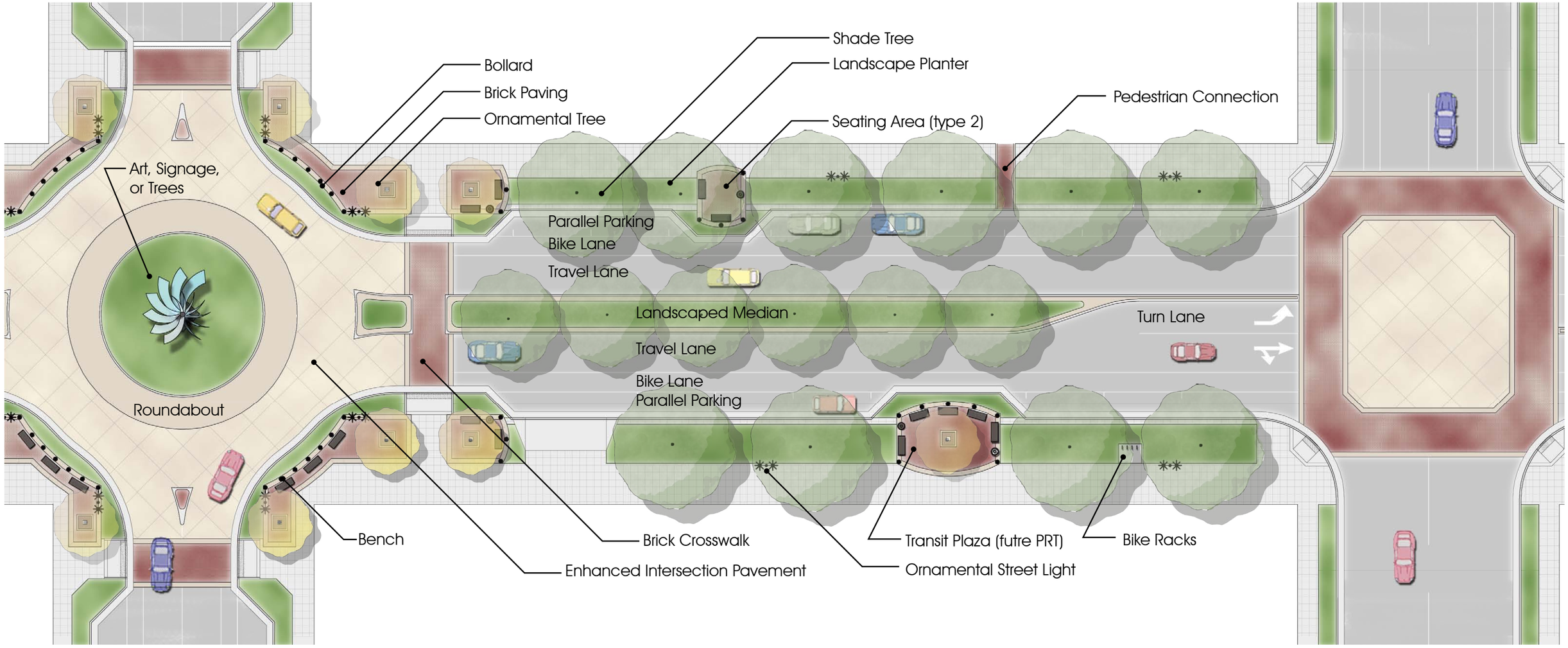


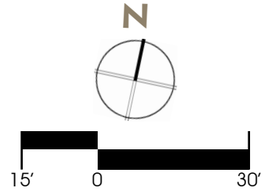
HUNTER ST. TO SAN JOAQUIN ST.



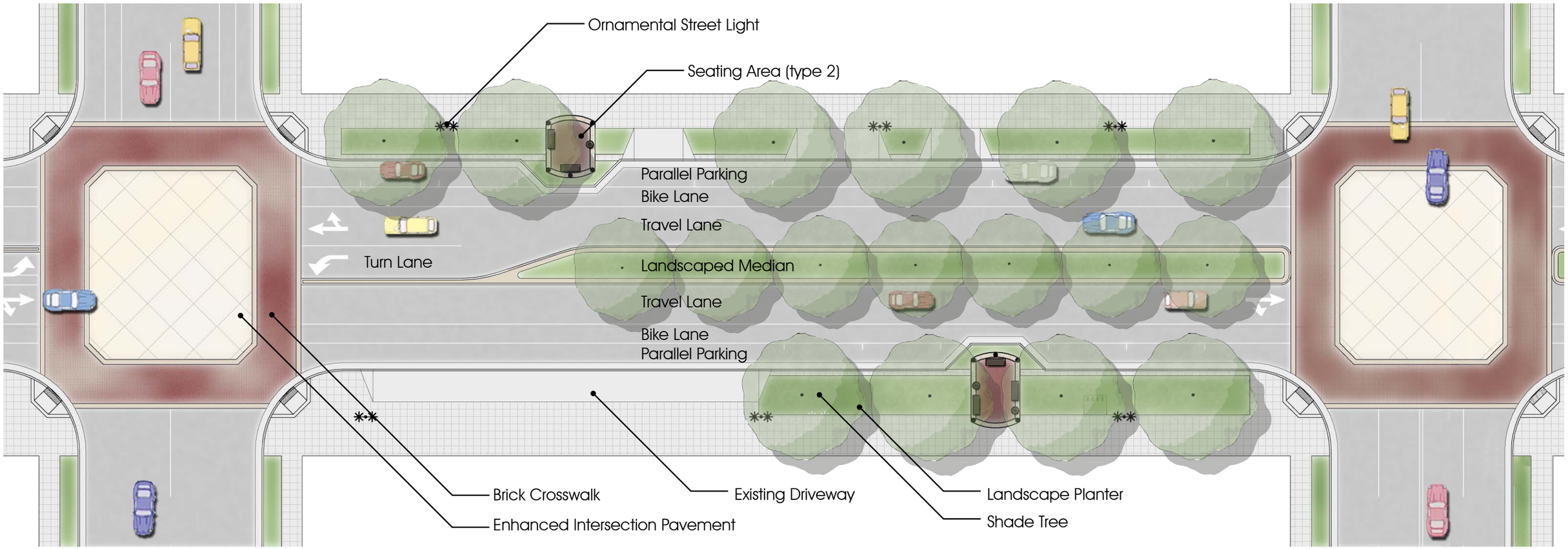


SAN JOAQUIN ST. TO SUTTER ST.





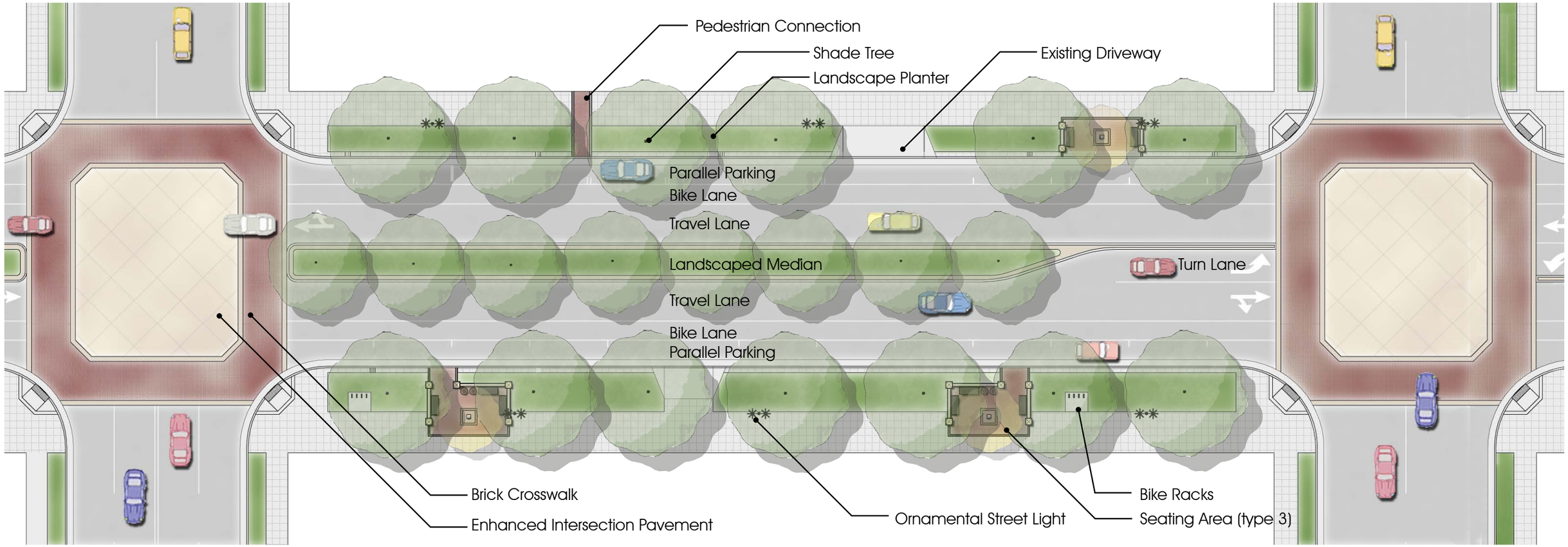
SUTTER ST. TO CALIFORNIA ST.



N

15′ 0 30′

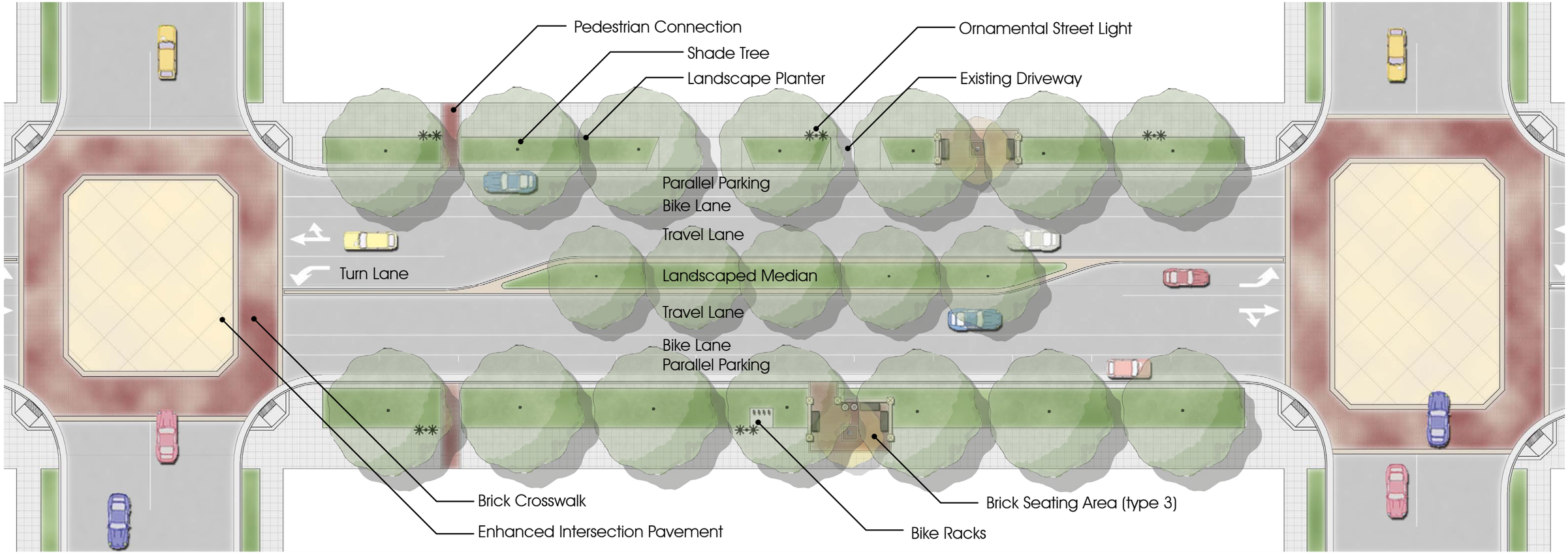
CALIFORNIA ST. TO AMERICAN ST.



N

15′ 0 30′

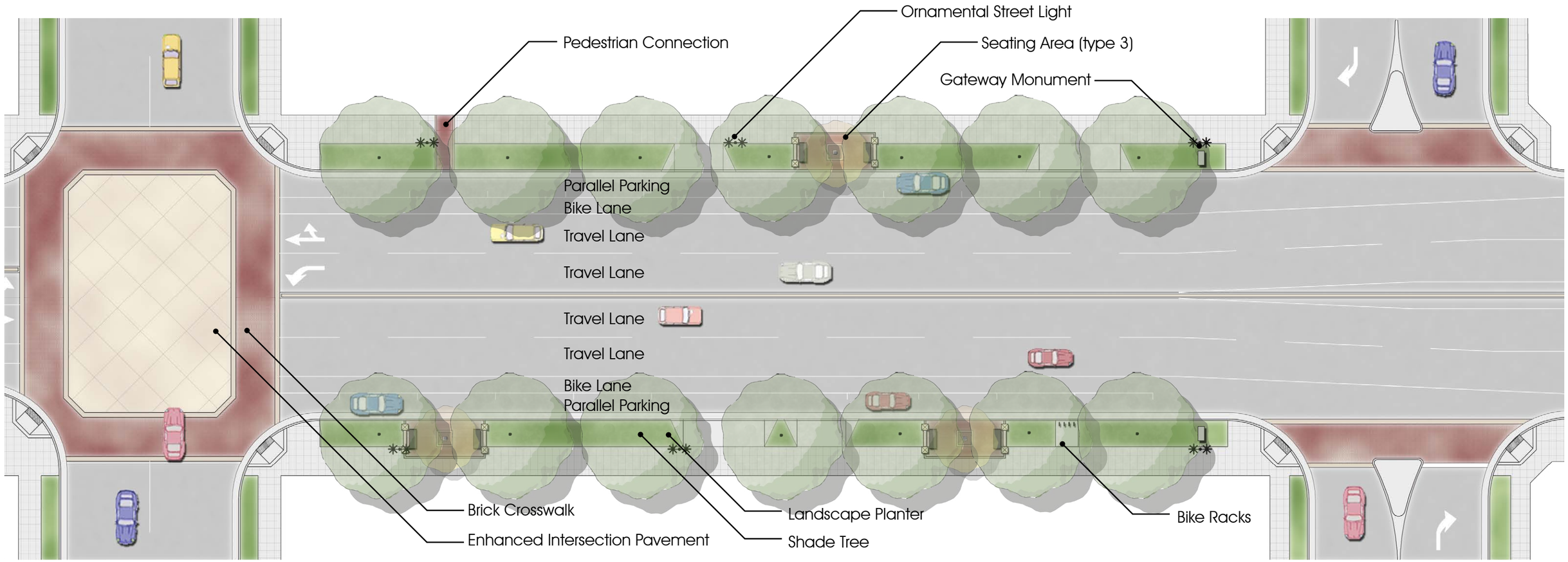
American St. to Stanislaus St.



N

15′ 0 30′

STANISLAUS ST. TO GRANT ST.


Ornamental Street Light
Pedestrian Connection
Seating Area (type 3)
Gateway Monument
Parallel Parking
Bike Lane
Travel Lane
Travel Lane
Travel Lane
Travel Lane
Bike Lane
Parallel Parking
Brick Crosswalk
Enhanced Intersection Pavement
Landscape Planter
Shade Tree
Bike Racks
Grant St.
AuroraSt.

N

15′ 0 30′

C. Community Seating Areas

There are three designs for the public seating areas along the corridor. Each is designed to provide seating and shade with basic appurtenances, such as bike racks, trash receptacles, and enhanced pavement. The designs include slightly different materials, shape, and form and are placed in the corridor to correspond with the predominant architectural influences of Cabral Station (east end), Medco Tower (central), and Weber Point (west end). Each seating area is located in the landscape planter and is accessible from both the sidewalk and on-street parking. More detail on each of these seating areas follows:

Seating Area Type 1 (West End – Center Street to San Joaquin Street):

This seating area has an elliptical form that reflects the geometric forms established in the adjacent Weber Point Park. It has seat walls rather than benches that are made from pre-cast concrete and anchored with a custom pilaster light. The pavement is colored concrete that extends into the sidewalk area, highlighting the feature to each passerby. Adjacent street trees will provide shade and one ornamental tree is planted within the seating area for seasonal interest.

Seating Area Type 2 (Middle– San Joaquin Street to American Street):

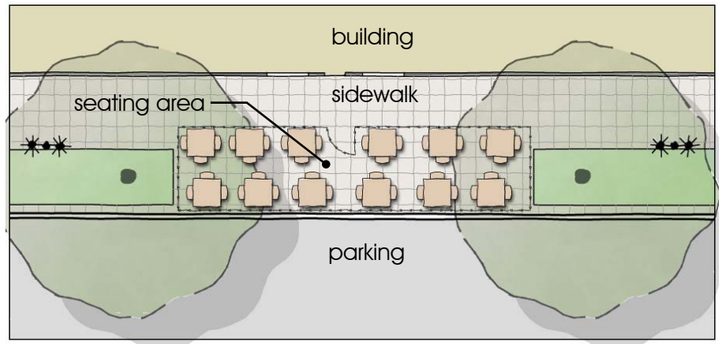
This seating area has a contemporary, rectilinear form that blends the seating area designs of seating area Type 1 and Type 3. It provides a transition between the geometric (Type 1) and historical (Type 3) designs. It features metal benches, lighting bollards, and brick pavement that relate to the Medco Tower; landscape plantings and shade trees flank this seating area. This seating area utilizes the adjacent parallel parking bay to increase the seating area and add interest to the streetscape.

Seating Area Type 3 (East End– American Street to Aurora Street):

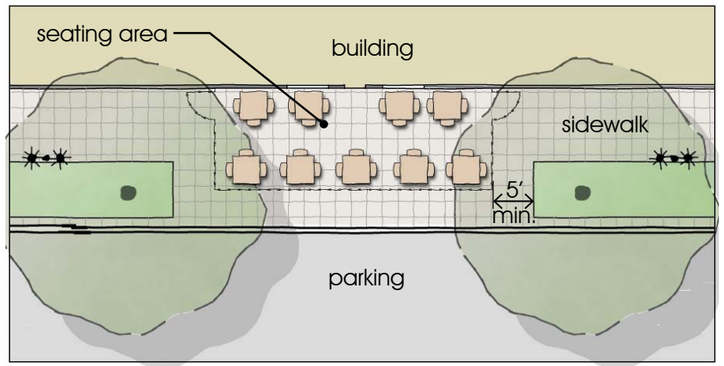
This seating area has a traditional, rectilinear form that reflects the historical features established in the adjacent Cabral Station. It has masonry walls, pilasters, and metal benches that reflect the timeless elements of the station building and recall the industrial-era materials common to the railroad vernacular. The pavement is brick and extends into the sidewalk area, highlighting the feature to each passerby. Adjacent street trees will provide shade and one ornamental tree is planted within the seating area for seasonal interest.

Outdoor Dining Area:

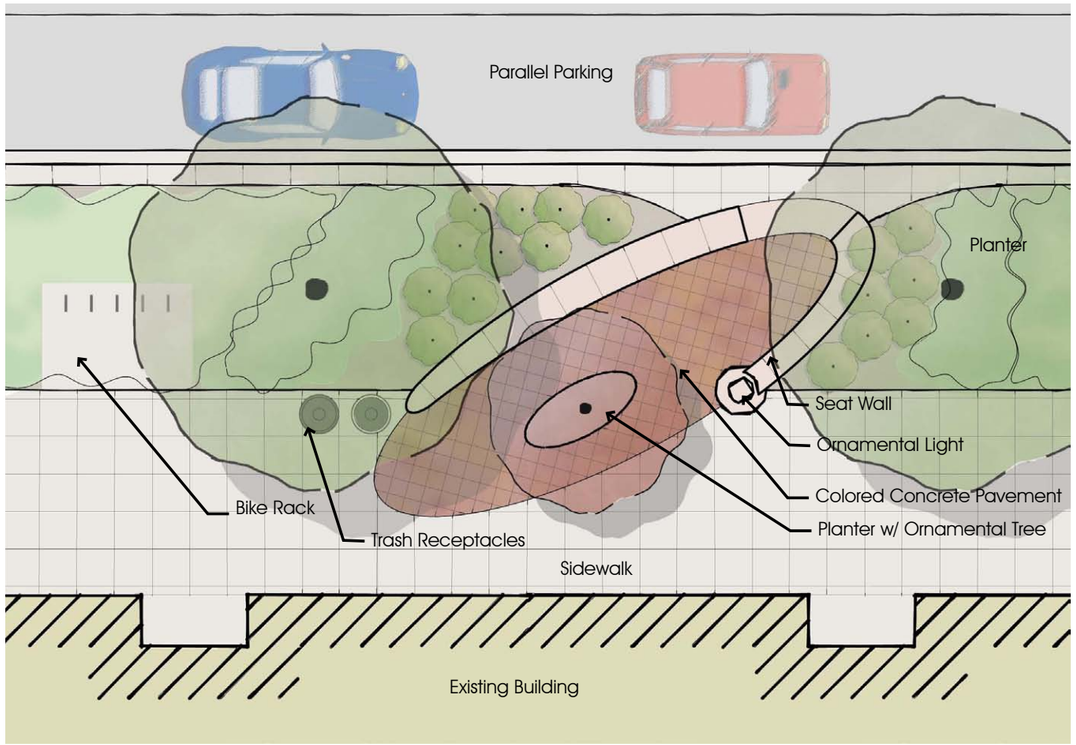
Private seating areas for dining along Miner Avenue are encouraged where it can be accommodated without disrupting pedestrian circulation. There are two options for the placement of this seating: the planter zone and the pedestrian zone. Where seating is located in the planting zone, it must be designed to ensure it does not eliminate trees or impact the health of the street trees as shown in this plan. Modifications to the ground cover plantings and irrigation should be done thoughtfully so that the seating area blends in with the surrounding furnishings, lighting and drainage solutions. Where seating is located in the pedestrian zone, it must respect accessibility standards for the public sidewalk, drainage and public lighting. It should be designed to complement the adjacent building with decorative fencing (if needed) that is visually interesting and aesthetically pleasing.



Option A: Seating in Planter Zone



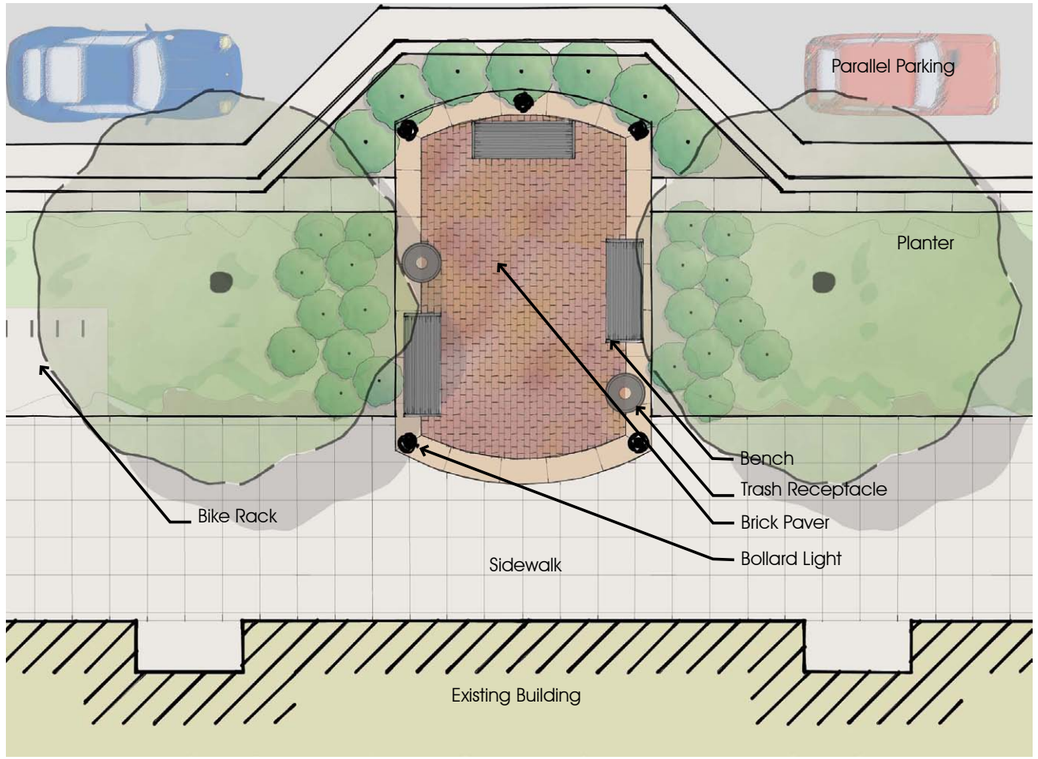
Option B: Seating in Walkway Zone



PLAN

ELEVATION

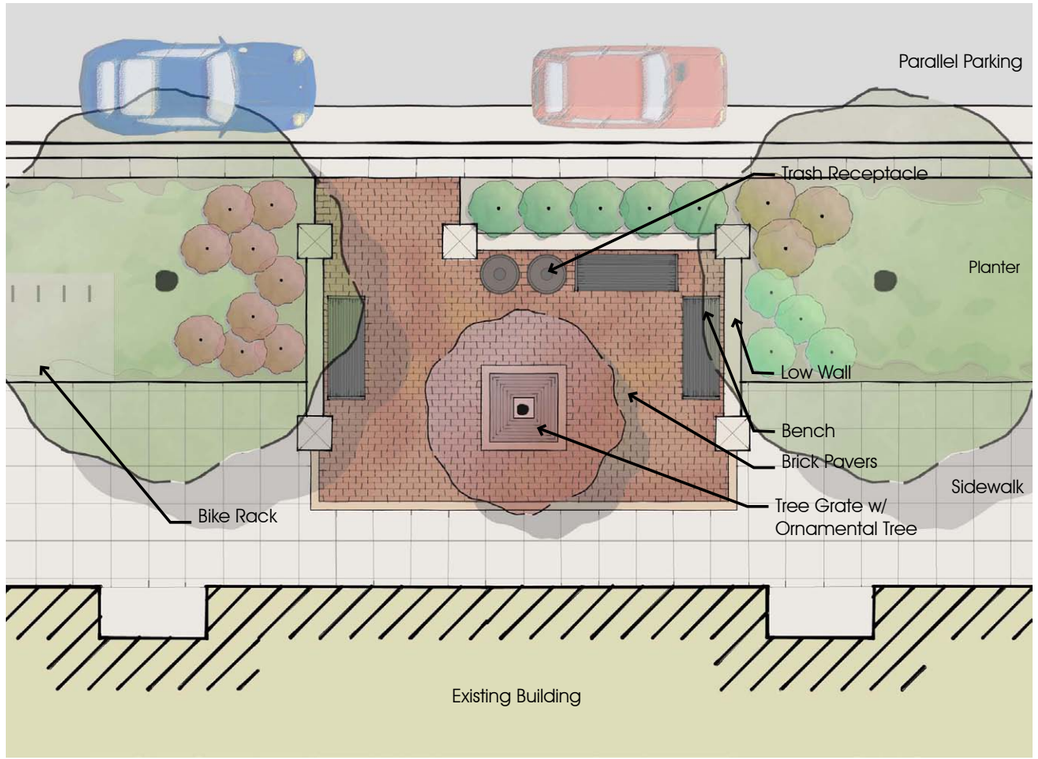
Seating Area Type 1



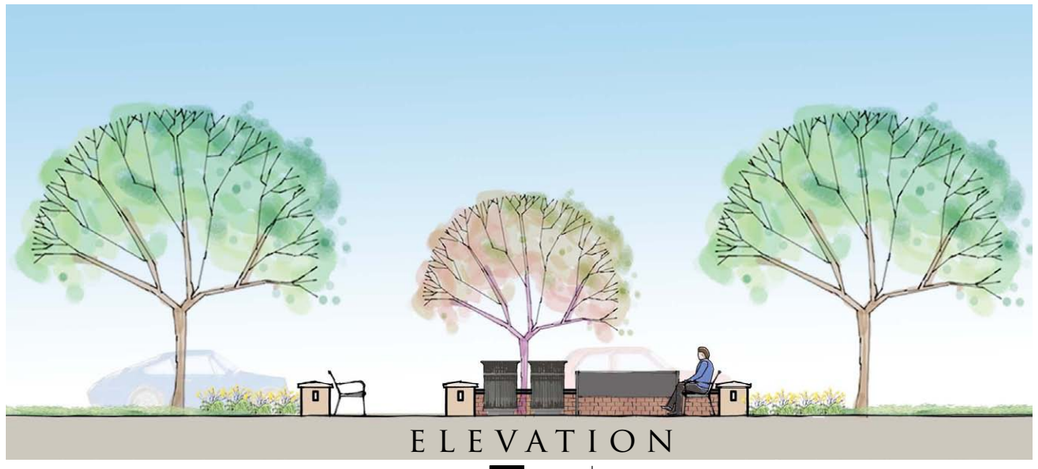
PLAN

ELEVATION

Seating Area Type 2



PLAN



ELEVATION

Seating Area Type 3

D. Public Spaces

Three public spaces provide catalyst sites along the corridor. These sites will yield significant opportunities for the City to create public spaces that encourage pedestrian activity and promote the use of the street as a public amenity.

Lot A:

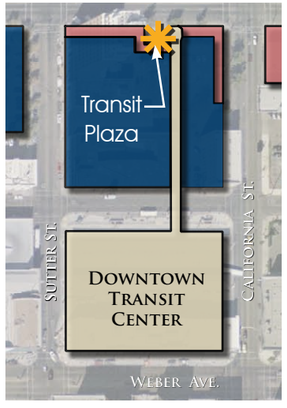
Lot A is vacant and is located at the northwest corner of California Street and Miner Avenue. Union Oil Company currently owns Lot A. This 15,000 square foot lot was once a gasoline station and likely has toxic soils that will need to be mitigated to reuse the site. The site will likely require less mitigation if it is used for minor gatherings of a short duration than if it is used for major gatherings of a long duration. This mitigation issue should be studied in more detail through a formal environmental review to determine the appropriate mitigation and reuse activity. The site is centrally located along the corridor and is ideally suited for an urban park, sculpture garden, and / or as a quasi-public plaza for adjoining retail commercial or restaurant uses.

Lot B:

Lot B is vacant and is located at the northeast corner of American Street and Miner Avenue. The State of California currently owns Lot B. This 36,000 square foot lot appears to have large utilities located underground, including a 60~70-inch storm drain that complicates the reuse of this site. The site is uniquely qualified as both a storm water quality demonstration facility and / or a neighborhood pocket park. More detailed hydrological study will be needed to detail a water quality demonstration facility; however, the general concept would be to daylight the storm water as a planted bio-swale feature within the park. The park could have an active use area along Miner Avenue and a more passive use area on the north half of the site.

Transit Plaza:

This site is located in the mid-block between California and Sutter streets and relates directly to the future Personal Rapid Transit (PRT) stop planned at this location. This stop would connect passengers with the Downtown Transit Center for buses located one block south on Weber Street. This plaza area is proposed to have basic amenities for pedestrians, public art, and a quasi-public plaza with adjoining ground floor retail uses.



Transit Plaza

E. Land Use & Urban Design

Land Use Recommendations:

The following recommendations translate the Economic Analysis into specific land use actions. They focus on land use policies and concepts that the City and/or Corridor stakeholders could use to facilitate future Corridor development.

Develop an Identity and Long-term Vision for the Corridor:

The Corridor has the potential to become a new district in the City with a distinctive character of its own. Stakeholders should work together to develop a brand to identify the Corridor, as well as a long-term vision for Corridor land uses. To initiate this process, the City or Downtown Stockton Alliance could organize a public meeting for residents, business owners, land owners, and other stakeholders to generate ideas about desired land uses and branding (e.g., Corridor naming).

Three Sub-zones:

Focus the implementation on three distinct nodes of activity along the Corridor. These nodes are the east and west ends, and the center of the Corridor. Economic value currently exists at the two ends, while the center of the Corridor is underinvested. The center of the Corridor needs to be reactivated with specialized commercial land uses, such as live / work developments, retail-industrial (e.g., brewery or coffee roasting), or entertainment uses (e.g., restaurant, community theater). In addition, the City should encourage high-quality design standards and creative adaptive reuse.

Leverage Publicly-owned Parcels:

Two publicly-owned vacant parcels (Lots A and B) are located along the Corridor. The City should consider redeveloping these parcels as public gathering spaces (plazas, parks, or green spaces) to provide new Corridor destinations for pedestrians.

Prepare a Precise Road Plan:

A Precise Road Plan will provide a more detailed plan for Corridor development to consider CEQA impacts, traffic impacts, address parcel-specific conditions, and ensure consistent implementation of the streetscape design.

Ensure Flexible Corridor Zoning:

The City is considering a zoning overlay to ensure that land use policies will allow for flexibility in redeveloping the Corridor. The City should also consider other zoning options, including form-based codes. Land use policies for the Corridor should allow a variety of land use types, including local-service uses (coffee shops, cleaners, and small-scale shopping), community uses (restaurant, retail, and retail-industrial), and larger regional uses (offices and entertainment venues). Recommended building envelopes to support these uses would consist of two-to-three story structures with ground floor space that is suitable for a variety of uses, including live/work, retail, and flex industrial uses.

Land Use Areas:

The MASP advocates four distinct land use areas: residential, retail/commercial, office/employment and industrial/mixed-use. Each of these areas will have unique architectural solutions, depending on the nuances of the parcel configuration and access issues.

The residential land uses are located south of Miner Avenue in the two blocks between Stanislaus and Aurora streets. These properties are predominantly underdeveloped, used-car surface lots. Future development of these parcels should be multi-story, medium-to-high-density residential buildings with primary entrances oriented towards Miner Avenue and shared parking accessed from the side streets or new alley connections. These areas are also included in the Cabral Station Transit Plan and must also respond to its requirements.

The retail/commercial uses are concentrated in two areas along the corridor, keeping the total storefront length within the 1,000-foot length criteria discussed in the development analysis. The first area is located between El Dorado and San Joaquin streets and retail predominantly occupies this area now with just one vacant parcel. The second is located between California and Stanislaus streets and is predominantly vacant or underutilized property. Future development of these parcels should provide ground floor retail oriented toward the street, with entrances and windows that embrace the pedestrian. Outdoor seating and product displays are encouraged. The retail could be part of a mixed-use building type with office or residential located above. Future remodels and building upgrades of existing retail buildings should attempt to meet these criteria so that over time the corridor will have pedestrian oriented ground floor retail in these areas.

The office/employment uses are concentrated in two areas along the corridor, reflecting current conditions and the influence of the Downtown Transit Center. The first area is bounded by Center and El Dorado streets, where two prominent office buildings are currently located: the State of California Office Building and Wells Fargo Bank. The second area is bounded by San Joaquin and California streets, where a mixture of small and medium office buildings is located. The tallest building along Miner Avenue, Medco Tower, is

located at the southeast corner of Miner Avenue and Sutter Street. Converting surface parking lots to new office buildings or expanding the adjacent buildings in these areas offer opportunities to increase office/employment density. The ultimate goal is to have active building facades along the corridor and to increase density adjacent to the Downtown Transit Center.

The industrial/mixed-use area is located along the north side of Miner Avenue between Stanislaus and Aurora streets. This area is predominantly built out with industrial/commercial buildings and includes a few surface parking lots along the Miner Avenue frontage. Adding windows, shifting entrances, and adding some retail uses in the future can better interface these buildings with the street when they as get upgraded or re-used. The industrial users may be able to engage the public though storefront displays of their product/ services.

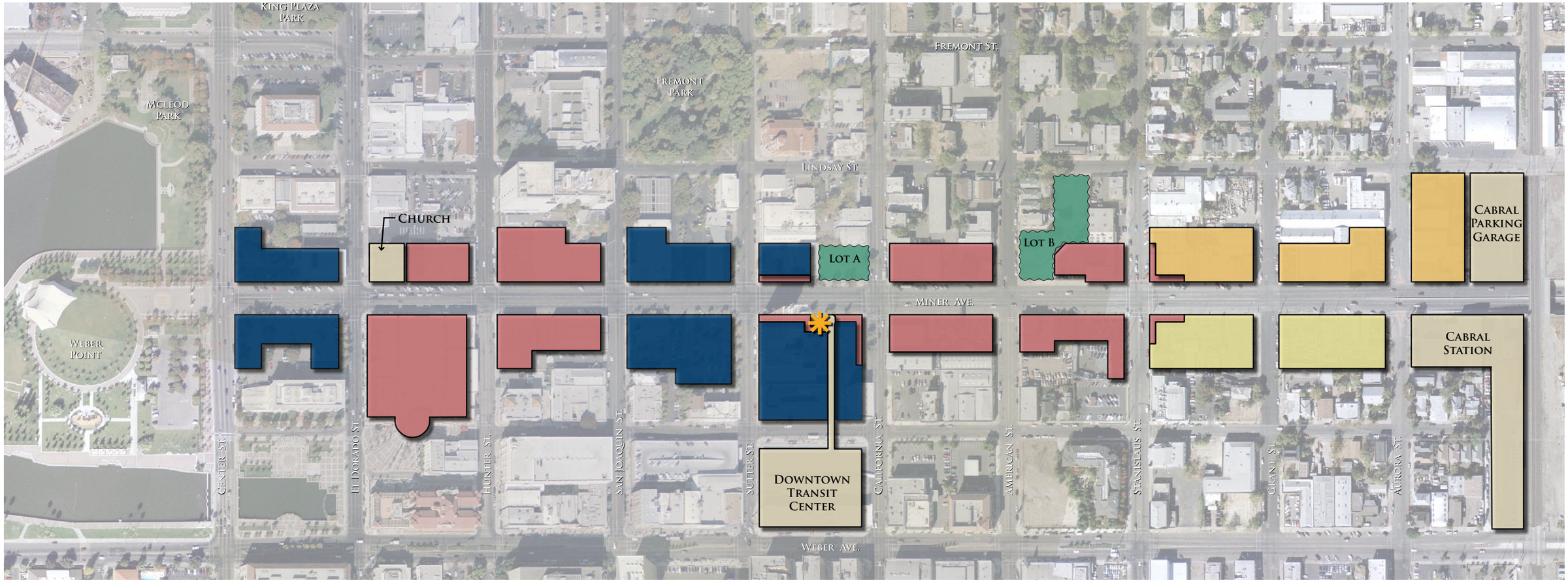
Urban Design Recommendations:

Miner Avenue needs to return to the urban forms that it once had, where the buildings were located along the edge of the ROW and where building doorways and public spaces were oriented toward the street. This historic urban fabric has declined over many years as the area has decayed and transitioned from a pedestrian-oriented street to an auto-dominated corridor. Vacant parcels, large parking lots, and disjointed architectural facades now dominate the aesthetic leaving little continuity of form, massing, or character. The design guidelines that follow provide the basic building blocks for recreating an interesting urban environment that will create a coherent 10 block experience for all users, pedestrians, bicyclists, and automobiles.

Some key provisions of these guidelines include: limited driveway access along the corridor; service and delivery functions located on side streets or in rear access areas; buildings with active storefronts at ground level; buildings scaled for the pedestrian; and active, lighted sidewalks with continual surveillance.

F. Detailed Phase One Plans (4 Blocks – California to Aurora)

The design development and preliminary construction document plans for the MASP are presented in Appendix B. Block-by-block cost estimates for the Phase One improvements are also provided in Appendix D. These plans were developed based on the limited field survey and as-built documents that the City provided for this work. Site-specific field surveys, title reports and geotechnical analysis are needed to develop the plans to a complete level suitable for bidding and construction purposes.



LEGEND:

- Transit Building
- Residential
- Industrial/Mixed-Use
- Retail / Commercial
- Office / Employment
- Potential Public Space
- Transit Plaza

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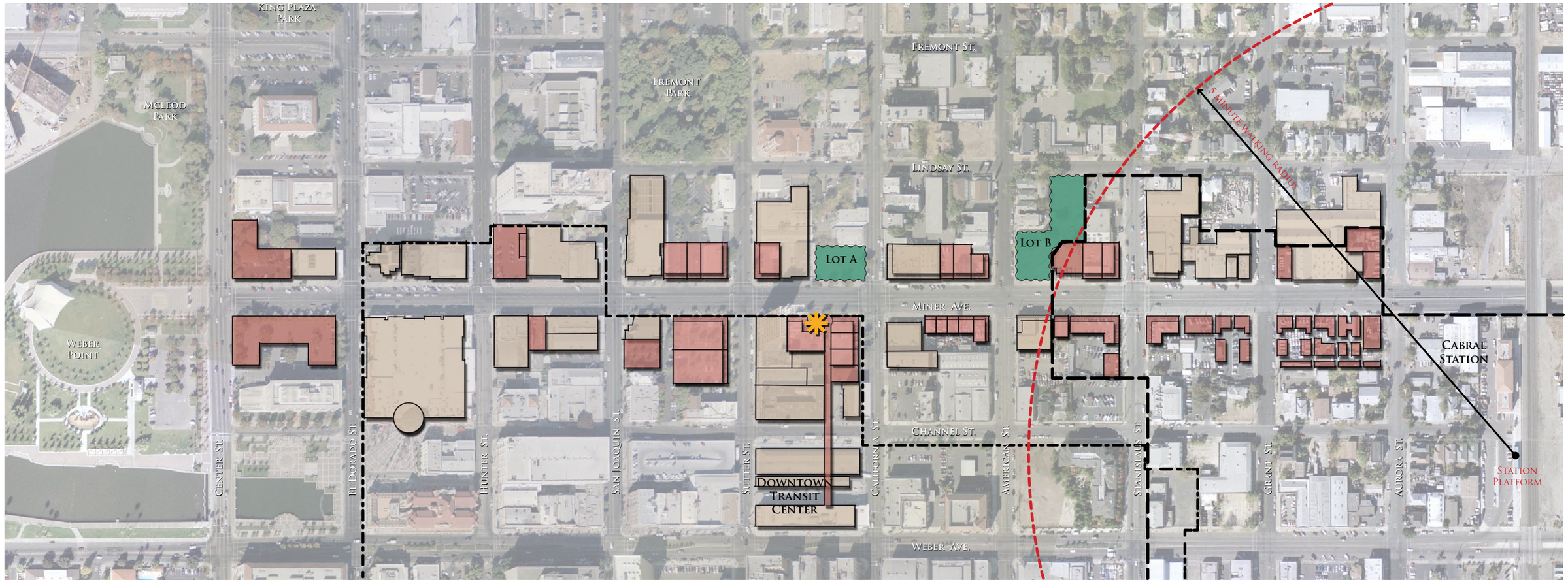
50' 0' 100'

Conceptual land Use Plan


King Plaza Park
McLeod Park
Fremont Park
Fremont St.
Lindsay St.
Miner Ave.
Channel St.
Weber Ave.
Weber Point
Center St.
El Dorado St.
Hunter St.
San Joaquin St.
Sutter St.
California St.
American St.
Stanislaus St.
Grant St.
Aurora St.
Lot A
Lot B
Downtown Transit Center
5 Minute Walking Radius
Cabral Station
Station Platform
LEGEND:
Existing Building
Activated Ground Level Uses, Retail Preferred
Future Building
Potential Public Space
Transit Plaza
Downtown Stockton Alliance Zone 4 Boundary
Cabral Station TOD Neighborhood Boundary
N
50' 0 100'

V. DESIGN & DEVELOPMENT GUIDELINES

This section details the design and development guidelines prepared to achieve the MASP's land use and urban design recommendations. The City should formally adopt these guidelines to direct future Corridor development so that the MASP is realized.

A. Purpose and Intent

1. Vision for Miner Avenue

Miner Avenue is envisioned as a mixed-use corridor with active ground floor uses in each building. The vision is for a vibrant mix of commercial and residential buildings developed to a human scale in accordance with New Urbanism and Smart Growth principles. The buildings and public space within the Miner Avenue ROW must work together seamlessly to achieve this vision.

2. Purpose and Effect of Guidelines

These guidelines are intended to augment current City standards, and will apply where these guidelines conflict with provisions of the Zoning Code. City staff will be charged with reviewing project applications for conformance with these guidelines, which will apply to all properties fronting on Miner Avenue.

These guidelines incorporate both mandates and recommendations. The word "shall" is used for mandates, and the words "should" and "encouraged" are used for recommendations. The mandates are treated as standards with little room for variation, whereas the recommendations are subject to some interpretation and have room for minor variations.

3. Procedures for Approval

All development along Miner Avenue is subject to Planning Director Plan Review to ensure conformance with these guidelines. The plan review application shall include the information required on the standard City application.

B. Guidelines

1. Density and Height

Purpose & Intent: Provide an urban standard for development that supports TOD and Complete Streets objectives. Create a pedestrian-oriented urban environment for mixed-use development.

Guidelines for density are provided below with the intent of allowing development flexibility, while retaining the overall character of each development area as it is presented in the conceptual land use plan. Building heights shall be limited to the lower limit either by stories or height in feet. Building heights take into account that the ground floor of a mixed-use building may be higher than a standard residential floor.

- Maximum Building Height: 6 stories (85 feet)
- Minimum Building Height: 2 stories (25 feet)
- Maximum Residential Density (none)
- Minimum Residential Density (12 dwelling units per acre)

2. Building Setback

Purpose & Intent: Provide an urban standard that is similar to the Central Business District and urban areas of downtown Stockton. Provide an urban edge to the street with interesting ground floor building appeal.

The building setbacks are based on the back of adjacent sidewalk and are intended to establish an urban relationship between the building and the street. Side-yard and rear-yard setbacks are not required subject to Uniform Building Code and other life/safety building department requirements.

- Minimum Building Setback: zero feet (back of walk/edge of ROW)
- Maximum Building Setback: 5 feet for residential, all others zero feet.

3. Building Step-back

Purpose & Intent: Provide articulation for the upper levels of buildings exceeding 4 stories in height to enhance the scale of the building at street level for pedestrians, allow more sunlight to reach the street level and to make the buildings more architecturally interesting at the upper levels.

- 0-4 stories: no-step-back
- 4-5 stories: 10 feet
- 5-6 stories: 20 feet

4. Building Bulk

Purpose & Intent: Define spatial standards that will create a visually cohesive yet lively community image for the diverse building types.

No building shall appear to occupy an entire city block. Buildings exceeding 60 feet in length, measured along the Miner Avenue ROW, shall have distinct façade changes and/or massing changes that make the building appear to be a collection of smaller buildings of 30 feet in width.

5. Parking

Purpose & Intent: Provide parking commensurate with the density and variety of uses within the TOD/TOC while allowing reduced parking requirements for parcels in close proximity to the rail station and bus transit center.

The minimum parking standards for the Miner Avenue corridor include:

- Reduced parking requirement of 1 space per 1,000 square feet of office space and 1 space per unit with no guest parking space for residential units.
- Reciprocal parking is encouraged on a project basis where adjacent buildings and/or parcels have compatible shared use opportunities.
- Outdoor seating will not be included in the parking requirement calculations.

6. Building Orientation Standards

Purpose & Intent: Provide guidelines to encourage thoughtful placement of individual buildings that contribute to the overall fabric of the street. Establish architecture as an urban design building block whose collective effect in creating the urban form is greater than the individual buildings alone.

The following guidelines will apply to architectural development along Miner Avenue to support the creation of a grouping of buildings that are pedestrian-oriented and that promote convenient access to the street:

- Building Orientation – main entrances shall face Miner Avenue in every case.
- Building Entrances – entrances shall be located to accommodate ease of pedestrian movement along the street.
- Micro-climatic Effects – passive solar orientation, wind-tunnel effects, shadows cast by the building, and other influences should be evaluated within the context of the adjacent streets, buildings, and the overall corridor when locating entrances and placing buildings.
- Awnings and/or Canopies – building entrances and pedestrian areas in front of retail/commercial uses should be provided with awnings or canopies to shelter pedestrians from sun or inclement weather. Expanded or continuous awnings,

canopies, and/or arcade features are encouraged on the south facades of buildings. These elements may encroach into ROW to cover sidewalks. Structural supports for these may be placed in sidewalks, as long as public access is not impeded and required travel clearances are maintained, such as for barrier-free access.

7. Building Design Elements

Purpose & Intent: Building design should promote visual interest and diversity through use of architectural detail and massing changes, where appropriate.

Building design should reflect historical materials found at the Medco Tower at the southeast corner of Miner Avenue and Sutter Street and at the Cabral Rail Station, such as brick, masonry, wood trusses, and other industrial materials. Modern design features are also welcomed. The following general design elements shall also be considered.

- Building Articulation - unbroken facades shall be limited to 60 feet in length with articulation based on multiples of 30 feet maximum. Fenestration will be required on approximately 50 percent of each building facade.
- Building Facades – buildings should be clearly organized to have a Base Course (bottom), Street Wall (middle), and Cornice (top).
- Building Base Course – visual interest and variety should be provided since the building base course defines the street experience within the corridor. The base course should be scaled for the pedestrian with rich materials, texture, and detailing. Durable materials, such as stone and masonry, are encouraged. Additional details, such as arcades, colonnades, awnings, and other changes in the vertical plane are also encouraged.
- Building Street Wall – this element creates the Corridor's urban massing. Windows and balconies provide visual interest. Patterns should reflect the urban character of the community and avoid relentless grids and repetitive patterns. Reveals, step-backs, and moldings are encouraged to create shadow lines and visual interest. This fenestration should differ from the base course and the cornice.
- Building Cornice – parapets and roof elements should be designed with decorative treatments to clearly define the top to the building. Variations for entries, setbacks, and corners are encouraged. Roof top aesthetics, as viewed from adjacent buildings, should also be incorporated.
- Building Entries – entries should be clearly defined. While building entries need to be oriented to Miner Avenue, multiple entries are encouraged at corner locations to activate both street frontages. Canopies, awnings, and other features are encouraged with distinctive lighting for safety and effect. Service entries should be located away from the main entrance, where possible. Main entrances should be elevated whenever practical, especially for individual residential units facing the street.
- Building Corners – building corners shall be designed to support increased pedestrian activity and emphasize the intersections. Buildings shall be designed to accommodate required visibility triangles without compromising the corner design.
- Tower Elements – towers are encouraged at key corners or entrances. The tower element should be integrated with lower elements of the building, incorporating the same family of materials and interconnecting the base course, street wall, and cornice features.
- Roof Mechanical Equipment – roof-mounted mechanical equipment shall be screened from public view through use of parapet walls or continuous partial roofs.
- Parking Garages - structured parking should be located away from Miner Avenue or designed so that it does not appear to be a parking structure at the ground level. Occupied space shall be developed between above-ground parking garages and street level for a minimum of 80 percent of the garage wall facing Miner Avenue; and the facade shall comply with all architectural guidelines and restrictions, as defined in this document, including building articulation and accent features. In such cases, the incorporation of planters, decorative screens, and/or trellis elements is strongly encouraged to bring variation and interest to the facade design.
- Parking and Delivery Screening - functional service areas, while necessary, are not intended to be viewable from Miner Avenue. Materials and elements used in screening shall be complementary to the architecture and streetscape design. The following guidelines will function to conceal objectionable areas/activities from public view.
- Garbage Collection – efforts should be made to design garbage collection areas to be enclosed in a building envelope. These collection areas should be screened by a solid metal gate and should not face Miner Avenue, if possible.
- Large Existing Facades – large blank walls should incorporate murals and/or other types of graffiti-reducing public art, where feasible.

8. Lighting

Purpose & Intent: Provide safe and interesting sidewalks, plazas, and parks through decorative lighting solutions. Shield glare to adjacent properties.

Lighting shall be used as a tool to: 1) illuminate roadways, pedestrian spaces, and buildings while enhancing safety and aesthetic qualities and 2) serve as repetitive streetscape design elements. Lighting shall be directed and controlled so as not to disturb residences and to respect "dark sky" principles of lighting design. All light fixtures shall have white light sources, such as LED, incandescent, halogen, or metal halide light sources.

- Lighting should minimally meet the Illuminating Engineering Society of North America (IESNA) standards. Consideration should be given to doubling or tripling the foot candle output in troubled areas. Lighting must also be uniform and efforts should be made to avoid glare and light trespass.
- Fixtures should be vandal resistant. Full-cut off-wall packs and shoebox fixtures are recommended for parking lots, walkways, and around buildings to help eliminate glare and light trespass.
- Either Metal Halide or Induction lighting is recommended for exterior commercial lighting (e.g., parking lots, paths, parks, plazas, etc.). This lighting provides a clear white light that allows for true color rendition and the ability to better recognize potential threats. A compact fluorescent white bulb can be used for applications such as apartment doorways.
- Lighting levels should be uniform (with an average-to-minimum ratio of 4:1, and the lighting plan should be made part of the landscaping plan. The lighting plan should be capable of meeting the lighting standards from the time of planting up through the time of landscape maturity.
- The lighting plan should address issues, such as shadows that awnings and/or canopies for business windows create. Lighting solutions should be included under such awnings or canopies and they should utilize the same types of lighting listed above.
- Sign Lighting – lighting of signs shall be from a relatively concealed light source that is not intrusive to vehicular traffic, pedestrians, or neighboring properties in all zones of development. The following sign lighting treatments are encouraged:

- Snorkel lighting
- Hooded spotlights
- Lighting recessed at the base or side of the sign
- Lights concealed within relief lettering, illuminating the background
- Appropriately-sized and directed floodlights

Internally lit, plastic box type signs, in which the light source is not visible, are not allowable. Sign lights that flash on and off intermittently are also not allowable. All sign lighting design will be subject to City review and approval prior to installation.

9. Signage

Purpose & Intent: Encourage distinctive solutions for signage while meeting the existing City codes.

Signage serves a dual purpose within any urban space – it not only orients and directs users, but with thoughtful design, it can enhance the aesthetic environment of a streetscape, while adding to its identity and sense of place.

Lack of way-finding can lead to fear, confusion, and possibly exposure to crime. Clear way-finding measures need to be incorporated in parks and public plaza areas because they increase public safety.

The following general guidelines suggest different types of appropriate signage design. All signage design shall be subject to City review and prior to installation.

Regulatory Signage – all regulatory signage design shall include painted back surfaces and sign trim of a color that is coordinated to other streetscape elements. Regulatory signs shall be consolidated on light standard poles, where possible.

Projecting Signage – projecting signs have an advantage over traditional fascia signs in pedestrian-oriented corridors because pedestrians can view them at right angles to the building façade, as well as from a distance. In general, projecting signage features will be encouraged, provided they comply with the following guidelines. Such signs:

- Identify the name and business of the occupant
- Not be of unusual size or shape when compared to human scale or adjacent buildings (maximum dimensions equal 24-36 inches in width by 18-24 inches in height)
- Be oriented at right angles to primary pedestrian movement
- Not project above the roof line of a building
- Not block or detract from adjacent property

Awning Signage – awnings over building entrances add color, visual interest, and environmental protection to the streetscape environment, and are encouraged. Awning signs are typically non-illuminated displays that are painted on or permanently attached to an awning. These treatments are encouraged for signage design, provided they are:

- Permanently attached designs
- Not of unusual size so as to detract from the visual continuity of the streetscape
- Appropriate in scale when compared to the building/business which they serve
- Simple in text/logo design so easily read and not detracting from the overall streetscape

Ground Signage – ground signage is an acceptable alternative to pole-mounted or billboard-type signage. Use of ground signage should be:

- Of complimentary architectural design and material when compared to the building it serves
- Integrated into the landscaping
- Simple in text design so that it can be easily read at typical driving speeds
- Creatively lit from a concealed light source that is not intrusive to vehicular traffic, pedestrians, or neighboring properties

Window Signage – window signs may be etched or painted onto the glass surface (if the building owner permits), and must maintain clear visibility through the window or display case. Symbols, logos, or decorative elements comprising a window sign should be subtle in size/design, and should cover no more than approximately 15 - 30 percent of the display window surface.

Fascia Signage – fascia signs, signboards, or wall-mounted signs are allowable provided that they are designed to accentuate the vertical architectural elements of the building they serve, and provided that the sign size, shape, or scale does not detract from the overall character of the business.

Entry Monuments - the entry monuments planned for Miner Avenue are located at each end of the corridor. The exact design is shown in the 50 percent construction plans in Section III.

10. Public Art

Principle: Incorporate public art into the private and public realm to add visual interest for pedestrians and foster a distinct identity for individual development areas, streets, and buildings.

Public art creates a sense of place, distinguishes buildings, and adds visual interest to the corridor to enrich the pedestrian experience. Adding elements that visually and intellectually engage the community can be an effective means of fostering community identity. On a large scale, public art has the ability to enhance the PUD's identity and reinforce a design theme.

Consideration should be given to integrating public art into all aspects of the public and private realm. However, installing public art, needs to move beyond the concept of public art as discrete elements, such as statues or sculpture that occupy their own space, given the competition for space in the pedestrian realm. Instead, public art should be conceived of as something that is integral to the design of the many elements – making them more interesting, but not necessarily requiring more space. Thus, the design of all project elements should consider the potential to incorporate public art.

Public Art Guidelines:

- All private development projects should explore the integration of public art into the design of the building and site.
- Public art should be located where a large number of people can enjoy it, including sidewalks, intersections, plazas, and building entrances.
- Interactive art is encouraged: examples include pieces that either invite user participation or provide sensory stimulation through touch, movement, or sound.
- Public art should be used as a means to enhance community understanding of Stockton's history and unique cultural assets and appreciation for local artists.
- Public art may consist of both permanent and temporary installations.
- The design and placement of public art should enhance and be coordinated with other streetscape improvements to ensure a coherent character for a given district or corridor.
- Placement of public art and monuments should not obstruct driver's views of traffic control devices, be a distraction, or be located in a manner that could create a roadside hazard for motorists.

11. Public Utilities

Purpose & Intent: Encourage careful placement of utility appurtenances to minimize visual impact within the streetscape and other public spaces.

Above grade utilities, including telephone boxes, air conditioning units, meters, irrigation controllers, and the like, are to be placed away

from public view or views from neighboring properties, where possible. Below-ground vaults are encouraged within the public ROW, where practical, and they should be located away from building entrances and public features, such as paseos, mews, traffic circles, etc. Architectural niches or offsets should be designed to accommodate mechanical equipment. Green screens are allowable provided they accomplish solid screening at initial installation, not at assumed plant maturity.

12. Stormwater Quality Treatment Control

Purpose & Intent: To comply with the City's Municipal NPDES Permit that requires both source control and treatment control measures to minimize the increase of the project's urban runoff pollution.

Off-site treatment control measures:

Several storm water quality features are planned along the corridor. Generally, they will be located in the mid-block area of each block and collect water through a gravity system, using curb cuts to allow drainage to enter the treatment basin.

On-site treatment control measures:

Each parcel developed along the corridor will be required to mitigate its discharge per the City's Municipal NPDES Permit.

C. Sustainability

Purpose & Intent: Sustainable developments promote livable developments, reduce Stockton's environmental footprint, and sustain economic viability for businesses and the general population.

The following guideline is a summarization of elements that encompass sustainable communities. These are not all encompassing and general in nature.

1. Sustainable Sites

- Plan the building lot orientation to take into account the path of the sun, and design for passive solar strategies, such as solar heating and cooling. Allow for the installation of photovoltaic installations to convert sunlight to electricity.
- Consider natural breezes and utilize thermal mass in the building interior for a cooling effect in the summer.
- Plant trees that sequester carbon, shade and cool the environment, and reduce the urban heat island effect (i.e., thermal gradient differences between developed and undeveloped areas).
- Do not block solar access to the rooftops of designated solar projects.
- Consider cool roofs and/or green roofs to reduce the urban heat island effect.
- Reduce pollution and land development impacts from single occupancy vehicle use by sizing parking capacity appropriately and by providing preferred parking for carpools, van pools, car-share services, bicycles, etc.
- Develop infrastructure and provide for low emission, fuel efficient and alternative fuel vehicles, (i.e., electric, hybrids, and fuel cell).

2. Water Efficiency

- Plan the site for natural drainage, increase on-site infiltration, and manage stormwater runoff. Provide pervious (vs. impervious) landscaped and parking surfaces and provide on-site planting, bioswales, constructed wetlands, and vegetated filters to allow water to return naturally to the aquifer and pretreat it before it enters the storm drainage system. Utilize drought resistant and water efficient planting and irrigation efficiency.
- Reduce wastewater and potable water demand generation. Capture and re-use rainwater, provide water-conserving fixtures and consider the use of "greywater" for landscaping and other uses.
- Maximize water efficiency within buildings (water closets, urinals, lavatory faucets, showers, kitchen sinks) by utilizing high-efficiency fixtures that consume less water.

3. Energy & Atmosphere

- Verify that each building's energy-related systems are installed, calibrated, and perform according to project requirements.
- Optimize and increase energy performance above standards to reduce the environmental and economic impacts associated with excessive energy use.
- Minimize condenser and refrigerant-driven mechanical systems and utilize clean air renewable energy sources on-site to reduce carbon emissions and maximize energy efficiency (i.e., photovoltaics, indirect-direct evaporative cooling, wind power, co-generation, District Heating & Cooling, etc.).
- Include mechanical systems that utilize fresh air intake and the best ventilation and filtration technology.
- Support building envelope design that appropriately insulates homes and addresses their orientation to the sun with the use of sun shades, light shelves, high performance glass, roof slopes, cool roofs, green roofs, and solar photovoltaics. Integrate photovoltaics into the building envelope.
- Encourage the use of Green Energy programs that local utilities or third party providers offer.
- Address daylighting strategies to improve the indoor environmental quality and productivity of building occupants.

4. Materials & Resources

- Reuse and recycle building materials and products to reduce demand for virgin materials. Use salvaged, refurbished, or reused materials in construction. Use building products that incorporate recycled content materials. Use rapidly renewable building materials and products (made from plants that are typically harvested within a ten-year cycle or shorter), when possible,to reduce the use and depletion of finite raw materials.
- Utilize regional building materials and products, whenever possible, thereby supporting the local economy and reducing the environmental impacts resulting from transportation.
- Use low-emitting building materials and minimize or avoid using materials and interior finishes that utilize urea-formaldehyde and other volatile organic compounds in their production because such adhesives, caulking, paints, finishes, sealers, and carpet systems are irritating and/or harmful to the comfort and well-being of installers and occupants.

VI. FUTURE FUNDING OPPORTUNITIES

This section reviews multiple federal and state programs that are available to help implement the MASP. These programs encourage alternative transportation, carbon reduction, non-motorized modes of transportation, recreational facilities, open space, urban greening, and similar urban enhancement criteria. The grants and sources of funding are frequently evolving and changing. The sources noted below represent opportunities at the time of this report's preparation; the funding agencies will likely offer similar programs in the future. This streetscape plan provides significant technical data plus costing and design information to position it for special funding. The plan achieves many objectives important to the grant providers, such as alternative modes of transportation, recreation/health benefits, carbon reduction, redevelopment, and economic stimulus. It meets numerous objectives for urban renewal, such as smart growth, job creation, and complete streets. Specifically, the following are some current grants worth considering:

A. Federal Programs

U.S. Department of Transportation (USDOT) / Transportation Enhancements (TE)

www.enhancements.org

http://www.dot.ca.gov/hq/TransEnhAct/TransEnact.htm

Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 to promote balanced, multimodal transportation. The creation of TE+, which has provided funding for more than 24,000 projects, was one of the most important features of the legislation. Subsequent transportation legislation has expanded the TE program to comprise a 10 percent set-aside of the Surface Transportation Program, which translated to more than $800 million in FY 2005-2009, the most recent authorization period.

Funding is available to local governments, communities, and non-profit organizations that have projects directly related to surface transportation. Each state administers its allocation of TE funds, applying its own state program differently; however, each state works with FHWA to ensure that projects meet specified criteria. Projects must relate to surface transportation and at least one of the following 12 eligible activities:

- Provision of pedestrian and bicycle facilities
- Provision of pedestrian and bicycle safety and education activities
- Acquisition of scenic or historic easements and sites
- Scenic or historic highway programs, including tourist and welcome centers
- Landscaping and scenic beautification
- Historic preservation
- Rehabilitation and operation of historic transportation buildings, structures, or facilities
- Conversion of abandoned railway corridors to trails
- Control and removal of outdoor advertising
- Archaeological planning and research
- Environmental mitigation of highway runoff pollution, reduction of vehicle-caused wildlife mortality, or maintenance of habitat connectivity
- Establishment of transportation museums

TE funds are administered as a reimbursable cost share program, which has standard federal requirements for highways, environmental controls, planning, and accessibility. Generally, applicants can expect an 80 percent federal share, and additional funding from other sources can contribute to the 20 percent required match. Funding administration varies by state, with innovative measures, including advance payment and consideration of the value of local land, services, and materials.

Congestion Mitigation and Air Quality (CMAQ) Improvement Program

www.fhwa.dot.gov/environment/bikeped

CMAQ was created in 1991 under ISTEA to fund transportation-related projects designed to reduce traffic congestion and improve air quality. CMAQ has seven major project categories:

- Transit
- Shared Ride
- Traffic Flow Improvements
- Demand Management
- Pedestrian/Bicycle
- Inspection/Maintenance (I/M) and other Transportation Control Measures (TCMs)
- Surface Transportation Program (STP)/CMAQ

Pedestrian and bicycle projects comprise one major project category and account for approximately 13 percent of CMAQ projects. CMAQ Improvement Program funds are available to a wide range of government and non-profit organizations, as well as private entities contributing to public/private partnerships. They are controlled by metropolitan planning organizations (MPOs) and state departments of transportation (DOTs). These organizations often plan or implement their own air quality programs, as well as approve CMAQ funds for other projects. Funding is available for areas that do not meet the National Ambient Air Quality Standards (nonattainment areas), as well as for former nonattainment areas that are now in compliance (maintenance areas). CMAQ-funded projects may include bicycle and pedestrian facility improvements, bicycle racks and lockers, and individualized marketing initiatives that promote bicycling and walking.

The Federal Highway Administration's (FHWA) Final Program Guidance for the CMAQ Improvement Program under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) provides several examples of eligible non-motorized CMAQ activities:

- Constructing bicycle and pedestrian facilities (paths, bike racks, support facilities, etc.) that are not exclusively recreational and have the potential to reduce vehicle trips
- Non-construction outreach related to safe bicycle use
- Establishing and funding State bicycle/pedestrian coordinator positions for promoting and facilitating non-motorized transportation modes through public education, safety programs, etc. (Limited to one full-time position per state)

CMAQ-funded bicycle/pedestrian projects can be focused on efforts, such as, bike parking, pedestrian and bicycling promotion, sidewalk or pedestrian improvements and enhancements, bike maps and planning, and education efforts. Bicycle and pedestrian projects often work to improve mobility and access, while also improving safety. These projects can help reduce the need for automobiles and provide safe connections for walkers and bikers.

For more information about CMAQ, reference PBIC's CMAQ FAQ or visit the FHWA program web site. The League of American Bicyclists' report Congestion Mitigation and Air Quality (CMAQ) Improvement Program provides a chart of project ideas by type, location, and description. A list of currently designated nonattainment areas for all criteria pollutants is available through the Environmental Protection Agency (EPA).

Recreational Trails Program

http://www.fhwa.dot.gov/environment/rectrails/recfunds.htm

The Recreational Trails Program (RTP) is an FHWA assistance program initially created under ISTEA, and later amended through the Transportation Equity Act for the 21st Century (TEA-21), increasing the funds significantly.

RTP is aimed at providing funds to develop and maintain recreational trails and trail related facilities. Funding can be used for both motorized (snowmobiles, four-wheel vehicles, all terrain vehicles, etc.) and non-motorized (pedestrian, bicycling, equestrian, skiing, etc.) recreational trail use.

Every state administers its own program and develops its own procedures for selecting projects for funding. Each state has its own State Recreational Advisory Committee that can either select projects for funding or that is solely advisory.

Congress authorized $85 million in RTP funding in 2009. FHWA is authorized to use up to $840,000 of this money annually for trail related research, program, administration, and technical assistance. Of the remaining funds, half is distributed to the states equally, and half is distributed in proportion to the amount of off-road recreation fuel use in each state. The money provided to each state must be split between varying recreational trail projects – 30 percent of funds must be allotted to motorized trail uses, 30 percent for non-motorized trail uses, and 40 percent for diverse trail uses.

The federal share of RTP funding for each project is 80 percent; however, a federal agency project sponsor may contribute additional funds, provided the federal share does not exceed 95 percent. The remaining funds must come from project sponsors or from various other funding sources. The remaining funding can come from a federal program if the project is eligible under that program, as well.

FHWA lists the following uses for RTP funds:

- Maintenance and restoration of existing trails
- Development and rehabilitation of trailside and trailhead facilities and trail linkages
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails (with restrictions for new trails on federal lands)
- Acquisition of easements or property for trails
- Assessment of trail conditions for accessibility and maintenance
- Development and dissemination of publications and operation of educational programs to promote safety and environmental protection related to trails (including supporting non-law enforcement trail safety and trail use, monitoring patrol programs, and providing trail-related training) (limited to five percent of a state's funds)
- State administrative costs related to this program are limited to 7 percent of a state's funds.

TE projects are selected through a competitive process in each state. Local government entities submit applications, often in partnership with nonprofit organizations. The federal government provides 80 percent of the funds, and the municipalities need to contribute a 20 percent match. Funds are provided on a reimbursement basis. California received $57,614,204 in TE funding in FY2007.

U.S. Environmental Protection Agency (EPA) / Brownfields Program

http://www.epa.gov/brownfields/applicat.htm

Many programs and other benefits at the local, state, and federal levels encourage redeveloping a property identified for acquisition or reuse that is or might be a "brownfields" site. EPA's Brownfields Program provides direct funding for brownfield assessment, cleanup, revolving loans, and environmental job training. In addition, legislation signed into law in 2001 limits the liability of certain contiguous property owners and prospective purchasers of brownfield properties; and innocent landowners are also afforded liability benefits to encourage revitalizing and reusing brownfield sites. EPA's brownfields program provides several types of grants:

- Assessment Grants provide funding for a grant recipient to inventory, characterize, assess, and conduct cleanup and redevelopment planning and community involvement related to brownfield sites. Grants can be made for $200,000, or up to $350,000, with a waiver.
- Remediation grants are available to remediate brownfield sites. These grants are limited to $200,000 per site, with no more than three applications per entity. A 20 percent cost-share is required. Non-governmental organizations are eligible to apply, but must have site control of the property. One site may qualify for two grants, if pollutants include petroleum and non-petroleum contaminants.
- Revolving Loan Fund grants (RLF) provide funding for a grant recipient to capitalize a revolving loan fund that provides sub grants to carry out cleanup activities at brownfield sites. RLF grants can provide $1 million per eligible entity, with a 20 percent cost share.

Department of Housing and Urban Development (HUD)/Community Development Block Grants (CDBG)

http://www.hud.gov/offices/cpd/communitydevelopment/programs/entitlement/

HUD provides Entitlement Communities Grants for the principal cities of Metropolitan Statistical Areas (MSAs), other metropolitan cities with populations of at least 50,000, and qualified urban counties with populations of at least 200,000 (excluding the population of entitled cities). CDBG funds may be used for activities that include: acquisition of real property; relocation and demolition; and construction of public facilities and improvements, such as water and sewer facilities, streets, neighborhood centers, and the conversion of school buildings for eligible purposes; among other activities.

The Economic Development Initiative program (EDI) is another applicable HUD program. Congress directly earmarks this program's projects, and they are generally awarded under $300,000. Funds may go towards park acquisition and improvements, but they must compete directly with other economic, social, housing, and cultural development projects. California received $39,262,869 in CDBG program grants in FY2008.

U.S. Department of Transportation/ FHWA/ Safe Routes to Schools

http://safety.fhwa.dot.gov/saferoutes/

The purpose of the federal Safe Routes to School (SRTS) Program is to address school access safety. The SRTS Program empowers communities to make walking and bicycling to school a safe and routine activity. SRTS makes funding available for a wide variety of programs and projects, from building safer street crossings to establishing programs to encourage children and their parents to walk and bicycle safely to school.

The FHWA safety web site provides an overview of the SRTS program, as well as specific program guidance for states to use in administering SRTS funds.

U.S. Department of Transportation/ Federal Transit Administration (FTA)/ Livable Cities Initiative

http://www.fta.dot.gov/planning/planning_environment_initiatives.html

FTA's Livable and Sustainable Communities programs fit into the larger DOT Livability Initiative and the Federal Sustainable Communities Partnership. The Partnership for Sustainable Communities represents a new federal initiative where DOT, EPA, and HUD are working together to provide citizens with access to affordable housing, more transportation options, and lower transportation costs, while protecting the environment in communities nationwide. FTA is advocating and supporting initiatives that demonstrate ways to improve the link between public transit and communities. FTA sees transit as providing critical "lifeline" services that connect all members of the community with employment, health, educational, and other important opportunities and services.

B. State Programs

Parks and Recreation Funding in California

A number of potential public funding options can be combined to protect land and increase access to public space for recreation. A dedicated local finance program is the most reliable among the combination of state, local, federal, and private funding sources that can be brought together to help achieve parks and health objectives. These sources often serve as supplements or incentives, but not as the central funding source for a parks program, because of the competition for state, federal, and private funding.

Proposition Funding Programs

California has made a substantial state investment in land conservation through the passage of five voter-approved propositions (Prop 12, 13, 40, 50, and 84) totaling nearly $10.2 billion, part of which is dedicated for the outright purchase of land and part for matching grants for land protection that further enables local governments and nonprofit entities to protect land and develop parks and other recreation areas in the state.

Proposition 12

Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond Act of 2000.

http://www.lao.ca.gov/ballot/2000/12_03_2000.html

Proposition 40

California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002.

http://www.lao.ca.gov/ballot/2002/40_03_2002.htm

Proposition 50

Water Quality, Supply and Safe Drinking Water Projects, Coastal Wetlands Purchase and Protection Bonds Initiative.

http://www.lao.ca.gov/laoapp/ballot_source/Propositions.aspx?d=11%2f5%2f2002

Proposition 84

Water Quality, Safety and Supply, Flood Control, Natural Resource Protection, Park Improvements Bonds Initiative. The City has already benefited from the Parks and Urban Greening grants under this program, and it will likely receive more of these funds in the future for this project.

Park Development and Community Revitalization Act of 2008

This grant program establishes a local assistance funding stream that targets grants to acquire parkland and to develop park and recreational opportunities in critically under-served communities. The Department of Parks and Recreation administers this program, which may provide competitive grants to cities, counties, regional park districts, joint powers authorities, and nonprofit organizations. A total of $400 million in Proposition 84 funding will be used to fund the program as described in California Assembly Bill 31. The grants will target areas that have less than three acres of usable parkland per 1,000 residents; that are disadvantaged communities, as defined in subdivision (g) of Section 75005; and that can demonstrate to the department that the community has insufficient or no park space and recreation facilities. The critically under-served community will have a significant percent of persons living at or below the poverty level.

C. Local Programs

The finance options available to local governments are diverse and continually expanding. Local public financing of parks and open space often takes the form of a "pay-as-you-go" measure, long-term borrowing, or a combination of the two. Specific mechanisms for local park financing include: property taxes, special assessment districts, sales and use taxes, impact fees, general obligation and revenue bonds, income taxes, users fees, and real estate transfer taxes, among other mechanisms.

A range of public financing options has been used in California to fund parks and land conservation, such as the property tax, local sales and use taxes, and general obligation bonds. Other means of public funding are also being used in California because of constitutional restrictions on taxing mechanisms. These mechanisms include creating special districts (e.g., recreation and park district) with the capacity to levy taxes and issue bonds and creating districts serving as alternative financing mechanisms (e.g., a benefit assessment district or a Mello-Roos community facilities district). For more information about local public financing options and restrictions see:

http://www.lao.ca.gov/2006/cal_facts/2006_calfacts_state_local.htm

Mello-Roos Community Facilities District Act

The Mello-Roos Community Facilities Act15 provides an alternative tax-based financing method available to cities, counties, and special districts. This method is designed for use especially in developing areas and areas undergoing rehabilitation. It provides funding for certain capital facilities and services, including "maintenance of parks, parkways and open space" and "the purchase, construction, expansion, improvement, or rehabilitation of any real or other tangible property with an estimated useful life of five years or longer," such as local park, recreation, parkway, and open-space facilities, and related planning and design work.

Local governments may establish community facilities districts under the act for the sole purpose of financing facilities and services through the levy of parcel taxes and issuance of bonds. The local legislative body may initiate proceedings to establish a community facilities district on its own. Alternatively, two members of the legislative body may make a written request to form a community facilities district or a petition signed by at least 10 percent of the jurisdiction may be used to initiate this kind of district.

Special Districts

Statutory special districts, specifically a recreation and park district and a community service district, are other mechanisms that local jurisdictions may use to acquire and/or manage property for parks and recreation. Special districts are a form of local government that a community creates to meet a specific need. Residents or landowners can form a district to pay for and administer new or increased services when they want new services or higher levels of existing services than the local government is providing. The City has several Lighting and Landscape Maintenance Districts currently in operation in various neighborhoods.

Recreation and Park District

Recreation and park districts may acquire property for parks and open space, impose property taxes, levy assessments on properties within their boundaries (because those properties are specifically benefited, either throughout the district or in zones of benefit), and incur indebtedness not to exceed 5 percent of the assessed valuation in the district. A majority of landowners or two-thirds of voters must approve the assessment or tax before the district's governing body may levy the assessment or tax.

Community Service District

A city or county may form a community service district for a number of public purposes, including public recreation purposes, such as, aquatic parks and recreational harbors, equestrian trails, playgrounds, golf courses, swimming pools, or recreational buildings. Such a district may use a grant, purchase, gift, lease, or eminent domain to acquire real property.

Private Funds

Private endowments can assist with projects that benefit society through improved health, recreation, and air quality. The WCP project is a good example of both a recreational and multi-modal amenity for a disadvantaged community.

Partnerships:

Numerous vacant parcels are located along the multi-use trail where development will occur in the future. They afford an opportunity to develop partnerships with private land owners, where the City can assist the land owner with the "soft-cost" associated with project entitlements, such as environmental review, plan review, engineering, and off-site infrastructure analysis in exchange for constructing the trail on their property. Other considerations for partnership include land swaps for other City-owned properties to gain more usable waterfront land, City-backed financing, tax increment financing, and deferred development and permitting fees.

VII. IMPLEMENTATION ACTION PLAN

A. Phasing Plan

Phasing Approach and Strategy:

The first phase of improvements for the 10 block MASP Corridor is the four easterly blocks between Aurora and California streets. These blocks were selected because of their proximity to the recently-renovated Cabral Station and the lack of street improvements at this end of the corridor compared with the west end of the corridor. The preliminary construction documents provided for the four blocks as part of the MASP provide the City with a significant opportunity to secure additional funding for phase 1 improvements.

The second phase of improvements will most likely be the adjacent two or three blocks located to the west starting at California Street and extend toward the waterfront. This phase will include the roundabout and a pedestrian and/or PRT connection to the Downtown Transit Center.

The third phase would extend the street improvements from the end of phase 2 to Center Street.

Public Property Phases:

The public property improvements are defined in the MASP as Lots A and B. The first step for each of these sites is to prepare an environmental review and a real estate appraisal. The next step is to prepare an acquisition strategy and secure City Council approval for acquisition.

Lot B is the first priority of the two because it relates directly to the first phase of street improvements. Ideally, the development of this property would happen concurrently with the roadway improvements.

Private Property Phases:

The phasing of private property enhancements and/or new development is dependent on market conditions, and therefore, difficult to precisely forecast. Ideally, the City will move ahead with the Miner Avenue infrastructure improvements, regardless of the market for private investment and also provide financial incentives for private investment to occur along the corridor. The phasing of private property redevelopment is not dependent on the phasing of the street improvements, although the neighborhood will benefit more and the MASP's revitalization objectives can be better met if the public and the private development can be built concurrently. The private parcels located between California and Aurora streets offer the best opportunity to leverage public improvements as a stimulus for private investment.

B. Development Strategies

The recommendations below are intended to provide the City with strategies to spur private TOD investment along the Corridor:

- **Facilitate Urban Land Institute (ULI) National Panel visit.**

  The City should facilitate a ULI National Panel visit to generate ideas for TOD investment along the Corridor. The City provides the National Panel with economic analysis and land use information, and in return the industry expertise and third party recommendations from the National Panel give the City ideas on how to accomplish the Corridor redevelopment. This effort could include the larger downtown, but the emphasis should be on the Miner Avenue corridor as an essential part of the project.

- **Partner with the Downtown Stockton Alliance (DSA).**

  DSA is interested in and committed to participating in the outcome of the Miner Avenue Streetscape program. DSA can become an important partner in communicating with property owners along the corridor and by expanding its service boundary to include additional properties on the corridor. This expansion would not only provide an enhanced level of services to businesses along the corridor, DSA could also participate in the maintenance and operations of the streetscape improvements.

- **Identify funding sources for streetscape capital and operating costs.**

  A variety of funding sources have been identified to help fund the MASP costs. These sources include High Speed Rail Bond Money for station area improvements, Measure K funding from the San Joaquin Council of Governments (SJCOG), as well as grant funding through Municipal Utility District Best Management Practices (BMP) funds.

- **Conduct outreach and focus studies of Corridor residents.**

  The preliminary findings from the Corridor Analysis provided an initial profile of Corridor area residents. Additional market analysis and outreach could help identify future retail and business establishments that would be appropriate for the Corridor. Surveying surrounding neighborhoods will permit better understanding the market demand and spending behavior of nearby residents.

- **Engage with land owners to promote Corridor redevelopment.**

  The City could meet with Corridor land owners to determine their interests and identify mutually beneficial options for property investment/redevelopment. This effort could include friendly land acquisition to assemble parcels into an appropriate size for redevelopment.

  An owner participation agreement (OPA) could be used, assuming that tax increment and redevelopment remain viable tools over the next decade. An OPA is a contract between a developer, an owner, and a public agency. The public agency would work with existing owners to create a partnership with a developer. Tax increment revenues, debt, and equity are typically leveraged to fund the project and development proceeds are allocated, based on each stakeholder's share of assumed risk. (Current State legislation may prohibit the use of tax increment funding in the future.)

- **SJCOG implement policy recommendations.**

  The May 2011 Administrative Draft of the SJCOG Regional Smart Growth Transit-Oriented Development plan included a variety of recommendations for the City to help further promote TOD. These recommendations are:

  - Continue to work with the San Joaquin regional transit district and SJCOG to implement Phase II of the City's Bus Rapid Transit Master Plan.
  - Reevaluate land use designations and intensify designations to support ridership.
  - Evaluate industrial and commercial blocks to the east of the station area for TOD potential.

C. Cost Analysis

The construction costs estimated to build the recommended Corridor improvements in 2012 are provided in Appendix C and D. These estimates are based on conceptual-level information from items identified, using the best information available during the planning process, as summarized in Section II. These estimates include a contingency of 20 percent, appropriate to their conceptual status; field surveys will be needed to develop final design plans and specifications.

VIII. APPENDIX DOCUMENTS

APPENDIX A: Design Development Plans (Aurora to California Streets)

APPENDIX B: Preliminary Construction Documents (Aurora to California Streets)

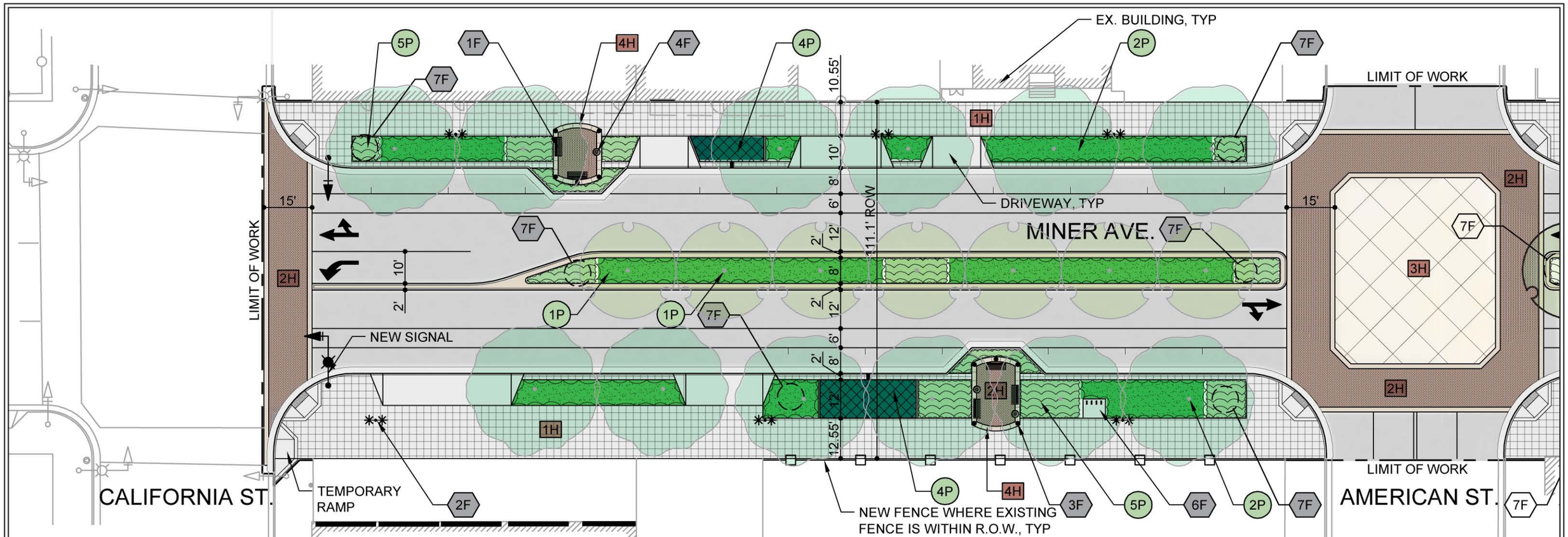
APPENDIX C: Cost Estimate - conceptual plan for ten block corridor

APPENDIX D: Cost Estimate – preliminary construction documents for four blocks, Aurora to California Streets

APPENDIX E: Economic Planning Systems Analysis

APPENDIX F: Supporting Maps & Exhibits

APPENDIX A:
Design Development Plans (Aurora to California Streets)



1P PLANTING LEGEND

SYMBOL	DESCRIPTION
1P	MEDIAN STREET TREE
2P	SIDE STREET TREE
3P	ACCENT TREE
4P	STORMWATER PLANTING
5P	ACCENT SHRUBS
6P	GROUNDCOVER PLANTING

1F FURNISHINGS & AMENITIES LEGEND

SYMBOL	DESCRIPTION
1F	BENCH
2F	DECORATIVE LIGHT POLE
3F	BOLLARD
4F	TRASH RECEPTACLES
5F	TREE GRATE
6F	BIKE RACK
7F	ART LOCATIONS (POTENTIAL)
8F	DECORATIVE FENCE

1H HARDSCAPE & SEATING AREA LEGEND

SYMBOL	DESCRIPTION
1H	SIDEWALK
2H	BRICK PAVERS
3H	COLORED CONCRETE PAVEMENT
4H	SEATING AREA 1
5H	SEATING AREA 2
6H	MONUMENT
7H	PEDESTRIAN CONNECTION

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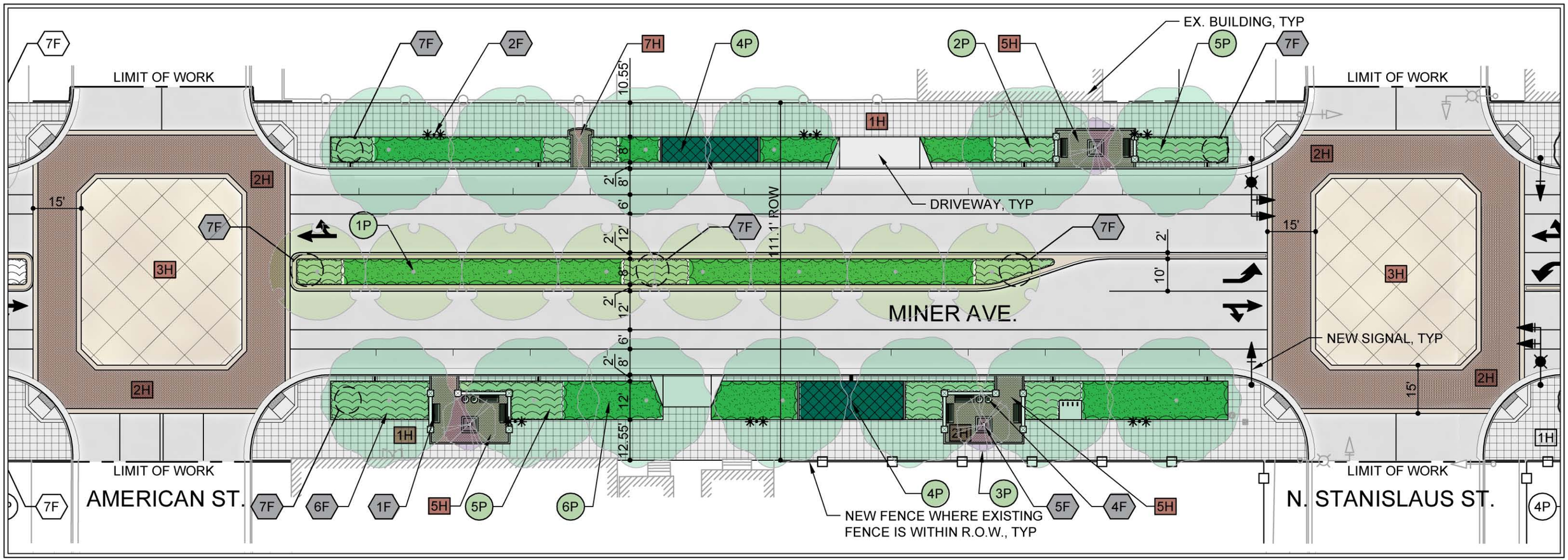
15' 0 30'



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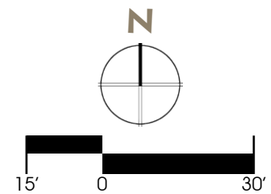

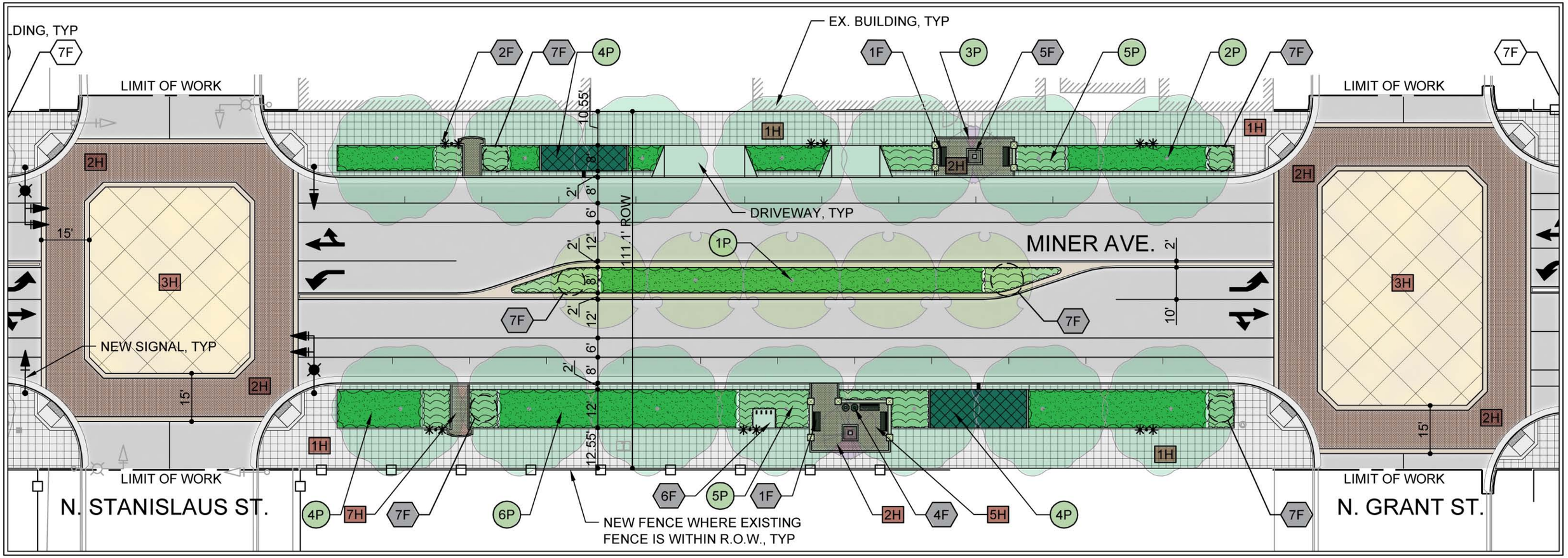

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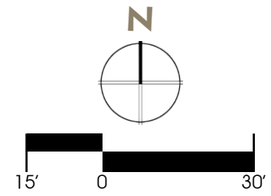

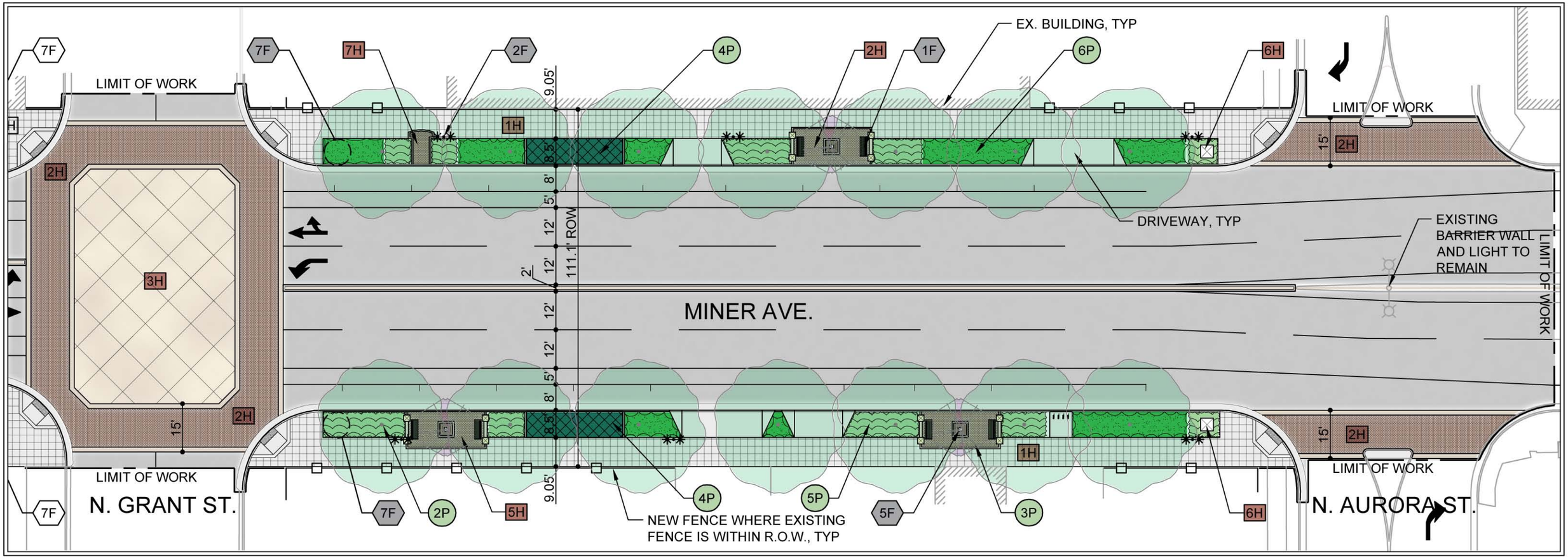

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N

15' 0 30'


LONDON PLANE TREE


SHUMARD RED OAK


ZELKOVA


CHINESE ELM


CHINESE PISTACHE

STREET TREES | 1P 2P


LITTLE JOHN BOTTLEBRUSH


BARBERRY


MEXICAN HEATHER


HEAVENLY BAMBOO

ACCENT SHRUBS 4P


ORANGE NEW ZEALAND SEDGE


BERKELEY SEDGE


ELK BLUE CALIFORNIA GRAY RUSH


PACIFIC MIST MANZANITA


ST. JOHN'S WORT


COTONEASTER

STORMWATER PLANTERS 3P

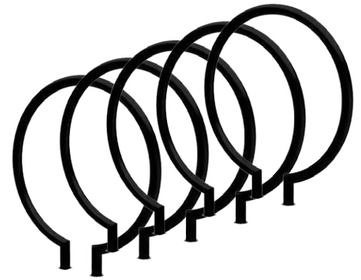
GROUNDCOVER 5P

LANDSCAPE FORMS
TOWNE SQUARE BENCH 1F

URBAN ACCESSORIES
SAN FRANCISCO BOLLARD 3F

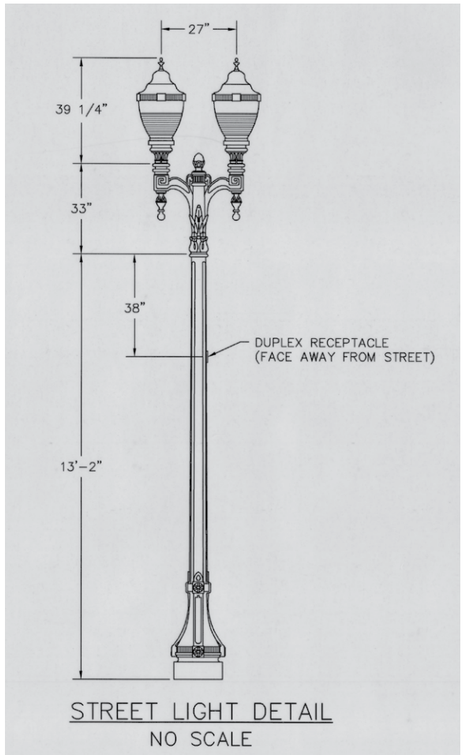
VICTOR STANLEY
SD 42 TRASH RECEPTACLE 4F

URBAN ACCESSORIES
CHINOOK TREE GRATE 5F



LANDSCAPE FORMS
RING BIKE RACK 6F

SITE FURNISHINGS



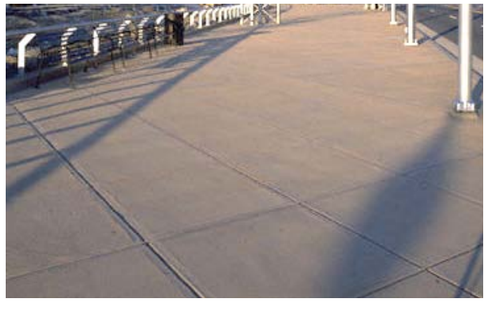
EXISTING HISTORICAL STYLE LIGHT WEST OF CALIFORNIA

DECORATIVE STREET LIGHT 2F

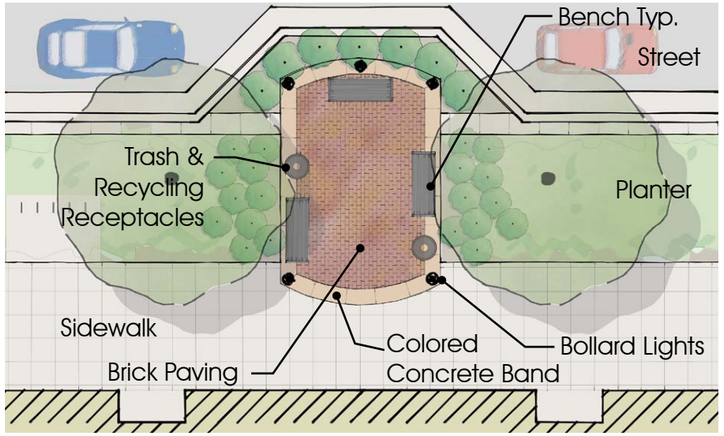
ARTWORK 7F

SIDEWALKS 1H

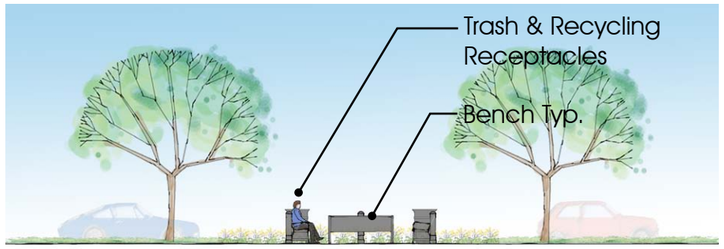
BRICK PAVERS 2H



COLORED CONCRETE 3H

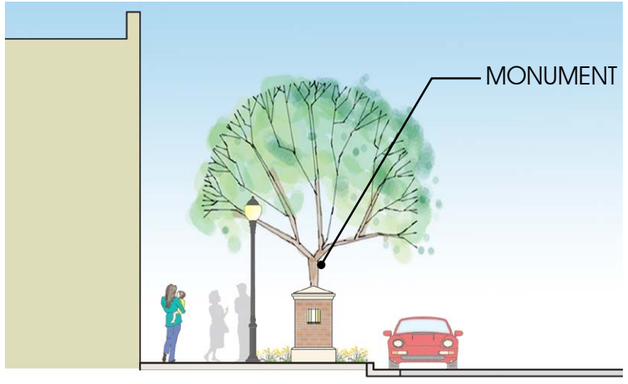


Plan

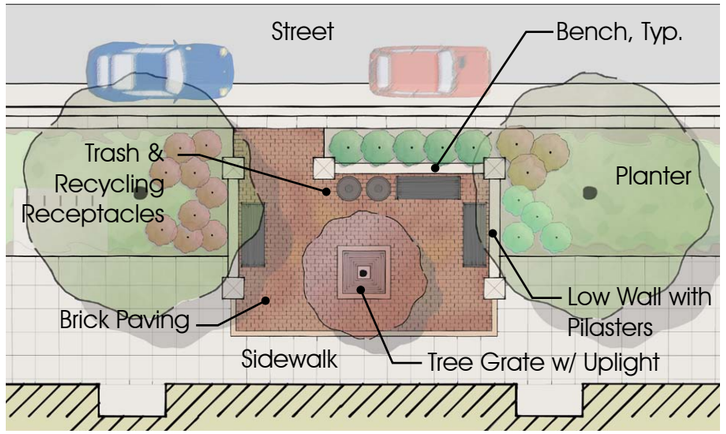


Elevation

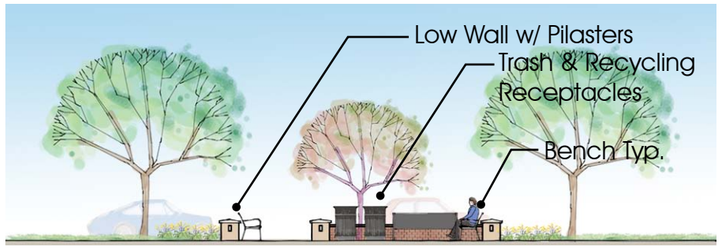
SEATING AREA 1 4H



MONUMENT 6H

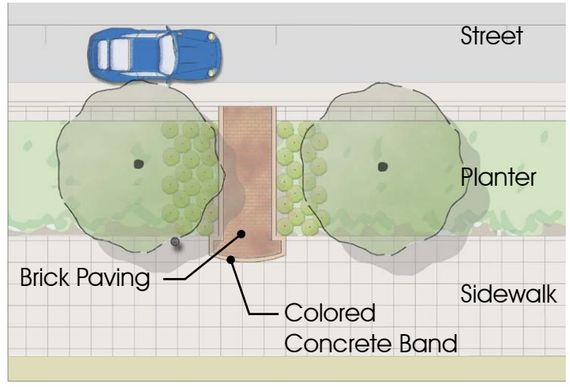


Plan



Elevation

SEATING AREA 2 5H



PEDESTRIAN CONNECTION 7H

APPENDIX B:

Preliminary Construction Documents (Aurora to California Streets)

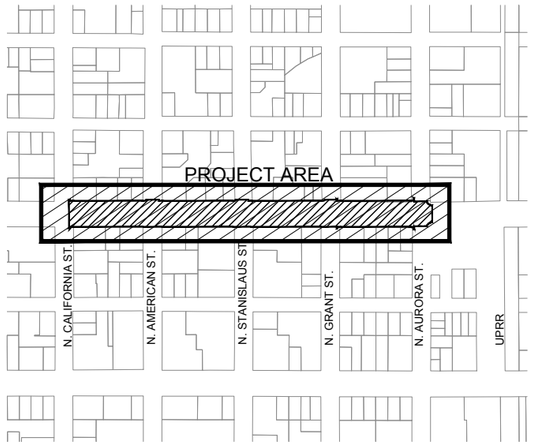
CITY OF STOCKTON

50% STREETSCAPE/LANDSCAPE IMPROVEMENT PLANS FOR:

MINER AVENUE

BETWEEN N. CALIFORNIA ST. AND N. AURORA ST.

MARCH 2012

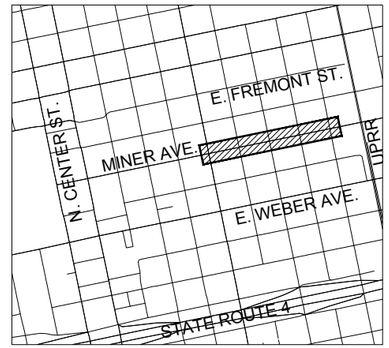


LOCATION MAP

NORTH

300 0 150 300 600

(SCALE IN FEET)
1 inch = 300 ft.



VICINITY MAP

NTS

NOTE:

1. THESE PLANS WERE DEVELOPED WITHOUT A FULL TOPOGRAPHIC SURVEY. THE SURVEY USED IS ACCURATE FOR HORIZONTAL LOCATIONS OF ABOVE GROUND OBJECTS. IT DOES NOT INCLUDE ANY UNDERGROUND UTILITIES. IT DOES NOT INCLUDE ELEVATIONS.
2. A FULL TOPGRAPHIC SURVEY INCLUDING UNDERGROUND UTILITIES AND A BOUNDARY SURVEY IS REQUIRED FOR THE COMPLETION OF THESE CONSTRUCTION DOCUMENTS.

SHEET INDEX

LANDSCAPE ARCHITECT/CIVIL ENGINEER

JACOBS
180 PROMENADE CIR
SUITE 300
SACRAMENTO, CA 95834 (916)929-3323

ACCEPTED BY: _____ DATE
CITY OF STOCKTON, PUBLIC WORK DEPT.

ACCEPTED BY: _____ DATE
CITY OF STOCKTON

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3102
Signature
Renewal Date
Date
STATE OF CALIFORNIA

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE	BY	APPROVED

DATE: 03/09/12
SCALE: H: 1"=20' V: NA
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE, STE 300
SACRAMENTO, CA 95834
PHONE (916) 929-3323 FAX (916) 929-1772

IMPROVEMENT PLANS FOR
MINER AVENUE
COVER SHEET
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W7690I

G-01 OF **1**

SHEET **1** OF **25**

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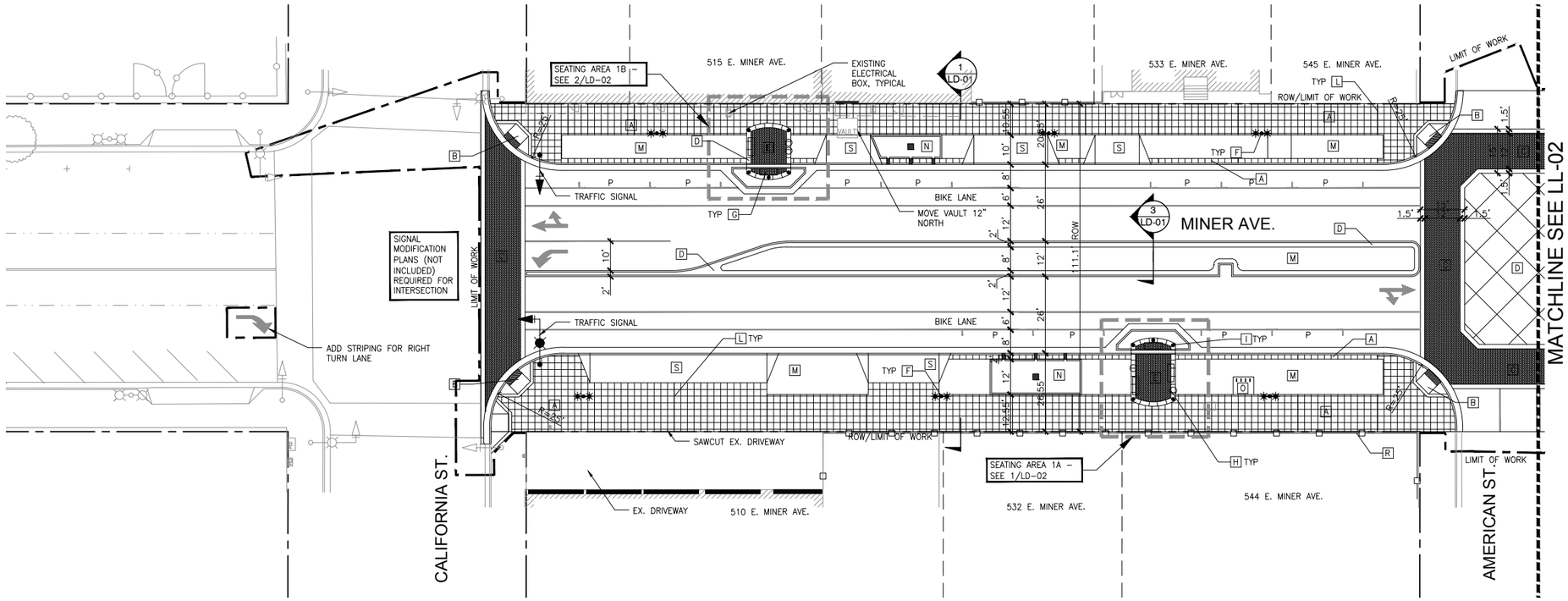
LAYOUT NOTES

1. CALCULATE DIMENSIONS AND MEASURE FOR LAYOUT OF WORK. DO NOT SCALE DRAWINGS. ALTHOUGH DRAWINGS ARE LITERAL IN NATURE THE DRAWINGS ARE NOT INTENDED TO BE COMPLETE IN EVERY DETAIL. WHEN AN ITEM IS PARTIALLY DRAWN, IT SHALL APPLY TO ALL PARTS OF THE WORK. THE CONTRACTOR SHALL BE REQUIRED TO COMPLETE THE WORK AS REASONABLY INFERABLE AND NECESSARY TO PRODUCE INTENDED RESULTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STREETS OR SIDEWALKS DURING THE CONSTRUCTION OF THIS PROJECT AND SHALL REPAIR SUCH DAMAGE TO THE SATISFACTION OF THE GOVERNING AGENCY, AT NO EXTRA COST TO THE OWNER.
3. CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT REGARDING ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND PLANS PRIOR TO PROCEEDING WITH WORK. THE WRITTEN DIMENSION SHALL SUPERSEDE THE DRAWN DIMENSION. ALL FIELD ADJUSTMENTS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
4. ALL DIMENSIONS ARE TO FACE OF CURB, BACK OF WALK, OR CENTER LINE OR EDGE OF PAVING, UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE AT 90 DEGREES, UNLESS OTHERWISE NOTED.
5. IN CONSTRUCTING THE CONCRETE SIDEWALKS AND PEDESTRIAN PATHS, ALL RADII SHALL BE SMOOTH AND CONTINUOUS AND ALIGNED AS INDICATED.
6. WALKS SHALL NOT EXCEED A 4.9% SLOPE NOR A 2% CROSS SLOPE IN ANY LOCATION. SLEEVING SHALL BE COORDINATED WITH CONCRETE WORK.
7. LAYOUT OF SITE ELEMENTS SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. CALL WITH 24 HOURS ADVANCE NOTICE AFTER FEATURES HAVE BEEN MARKED, FLAGGED OR STAKED IN THE FIELD. SITE ELEMENTS INCLUDE THE FOLLOWING ELEMENTS:
   - SEATING AREA PAVEMENT AND WALLS
   - INTERSECTION COLORED CONCRETE & CROSSWALKS
8. ALL PRE-MANUFACTRUED ELEMENTS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATION.
9. SEE IRRIGATION PLAN AND ELECTRICAL PLANS FOR IRRIGATION AND ELECTRICAL SLEEVE LOCATIONS.
10. PROVIDE OWNER OPERATION MAINTENANCE INSTRUCTIONS, PROJECT RECORD DRAWINGS, AND STANDARD WARRANTIES (IF ANY) FOR ALL PRODUCTS. FURNISH 2 COPIES IN A 3 RING BINDER. INCLUDE EMERGENCY CONTACTS AND LOCAL SOURCES OF SUPPLY FOR PARTS.
11. EROSION AND SEDIMENTATION CONTROL SHALL BE PERFORMED IN ACCORDANCE WITH THE SWPPP FILED FOR THIS PROJECT.

DEMOLITION NOTES

1. ALL EXISTING FEATURES WITHIN RIGHT OF WAY AND LIMIT OF WORK ARE TO BE DEMOLISHED EXCEPT:
   - OVERHEAD UTILITIES SHALL BE RELOCATED UNDERGROUND, SEE UTILITY PLANS (FUTURE SUBMITTAL)
   - UNDERGROUND UTILITIES SHALL BE MODIFIED, SEE UTILITY PLANS (FUTURE SUBMITTAL)
   - UTILITY VAULTS SHALL BE RESET AT NEW FINISHED GRADE OR MOVED AS INDICATED BY PLAN
   - EXISTING TRAFFIC SIGNALS TO BE REMOVED AND SALVAGED EXCEPT AS NOTED
   - REMOVE 3' DEPTH OF EXISTING SUBSURFACE MATERIAL AT ALL NEW PLANTER LOCATIONS
   - OTHER EXCEPTIONS AS NOTED ON PLANS
   - FENCES INSIDE OF ROW SHALL BE REMOVED
   - DO NOT DISTURB BUILDINGS THAT ARE LOCATED WITHIN ROW
2. EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXISTING UTILITY LOCATIONS PRIOR TO START OF CONSTRUCTION AND/OR TRENCHING. NOTIFY ENGINEER OF DISCREPANCY OR CONFLICT.
3. THESE PLANS SHOW GENERAL LIMITS OF DEMO FOR BIDDING PURPOSES ONLY. ACTUAL DEMOLITION SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR AS DIRECTED BY ENGINEER.



MATERIAL LEGEND

KEY	SITE ELEMENT	DETAIL/REF.
A	CONCRETE WALK	4/LD-3, 5/LD-3
B	CONCRETE CURB RAMP	REFER TO STOCKTON STANDARD DETAILS
C	CROSSWALK	1/LD-3
D	COLORED CONCRETE PAVEMENT	7/LD-3
E	BRICK PAVERS	6/LD-3
F	DECORATIVE STREET LIGHT	SEE ELECTRICAL PLANS
G	BENCH	2/LD-4
H	LITTER RECEPTACLE	6/LD-4
I	BOLLARD	5/LD-4

KEY	SITE ELEMENT	DETAIL/REF.
J	TREE GRATE	4/LD-4
K	SEATING AREA WALL	3/LD-3
L	EXPANSION JOINT	3/LD-3
M	PLANTER AREA	SEE PLANTING PLANS
N	STORMWATER PLANTER	5/LD-1, 6/LD-1
O	BIKE RACK	1/LD-4
P	PEDESTRIAN CONNECTION	6/LD-2
Q	MONUMENT	7/LD-2
R	6' HEIGHT TUBULAR STEEL FENCE	7/LD-4
S	CONCRETE DRIVEWAY APPRON	

NOTE: LOCATIONS OF DRIVEWAYS, SEATING AREAS, STORMWATER PLANTERS, PEDESTRIAN CONNECTIONS AND OTHER IMPROVEMENTS WILL BE CONTROLLED WITH CENTERLINE STATIONING ON FUTURE SUBMITTALS.

NORTH

20 0 10 20 40

(SCALE IN FEET)
1 inch = 20 ft.

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOMKINS
No. 3702
Registered
06/30/13
Renewal Date
Date
STATE OF CALIFORNIA

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

BY	DESCRIPTION	REV	DATE APPROVED

DATE: 02/22/2012
SCALE: H: 1"=20' V: NA
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE, STE 300
SACRAMENTO, CA 95834-2939
PHONE (916) 929-3323 FAX (916) 929-1772

IMPROVEMENT PLANS FOR
MINER AVENUE
LAYOUT PLAN
CALIFORNIA TO AMERICAN
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
LL-01 OF 4
SHEET 2 OF 25

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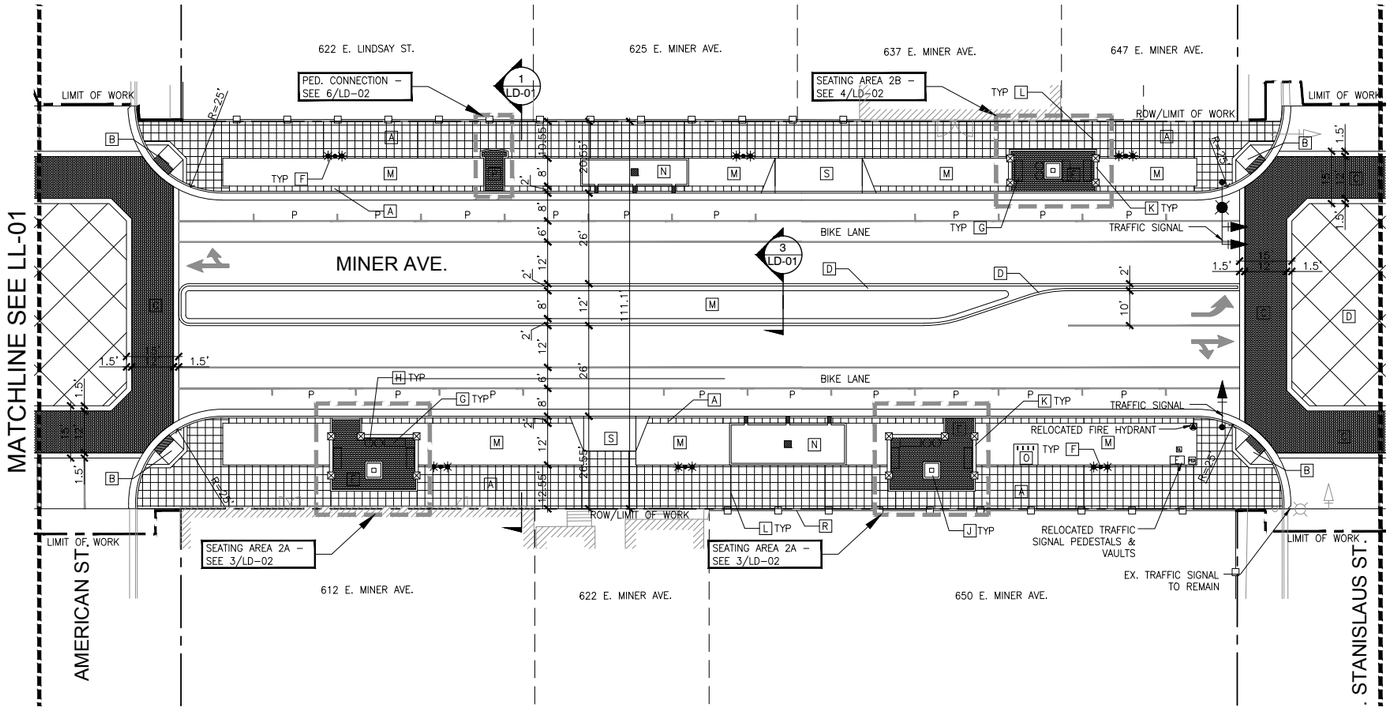

MATERIAL LEGEND

KEY	SITE ELEMENT	DETAIL/REF.
A	CONCRETE WALK	4/LD-3, 5/LD-3
B	CONCRETE CURB RAMP	REFER TO STOCKTON STANDARD DETAILS
C	CROSSWALK	1/LD-3
D	COLORED CONCRETE PAVEMENT	7/LD-3
E	BRICK PAVERS	6/LD-3
F	DECORATIVE STREET LIGHT	SEE ELECTRICAL PLANS
G	BENCH	2/LD-4
H	LITTER RECEPTACLE	6/LD-4
I	BOLLARD	5/LD-4

KEY	SITE ELEMENT	DETAIL/REF.
J	TREE GRATE	4/LD-4
K	SEATING AREA WALL	3/LD-3
L	EXPANSION JOINT	3/LD-3
M	PLANTER AREA	SEE PLANTING PLANS
N	STORMWATER PLANTER	5/LD-1, 6/LD-1
O	BIKE RACK	1/LD-4
P	PEDESTRIAN CONNECTION	6/LD-2
Q	MONUMENT	7/LD-2
R	6' HEIGHT TUBULAR STEEL FENCE	7/LD-4
S	CONCRETE DRIVEWAY APPRON	

NOTE: LOCATIONS OF DRIVEWAYS, SEATING AREAS, STORMWATER PLANTERS, PEDESTRIAN CONNECTIONS AND OTHER IMPROVEMENTS WILL BE CONTROLLED WITH CENTERLINE STATIONING ON FUTURE SUBMITTALS.

NORTH

20 0 10 20 40

(SCALE IN FEET)
1 inch = 20 ft.

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOMKINS
No. 3702
Signature Date
Renewal Date
STATE OF CALIFORNIA

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

REV	DESCRIPTION	BY	APPROVED	DATE

DATE: 02/22/2012
SCALE: H: 20 V: NA
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE, STE 300
SACRAMENTO, CA 95834
PHONE (916)929-3323 FAX (916)929-1772

IMPROVEMENT PLANS FOR
MINER AVENUE
LAYOUT PLAN
AMERICAN TO STANISLAUS
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
LL-02 OF 4
SHEET **3** OF **25**

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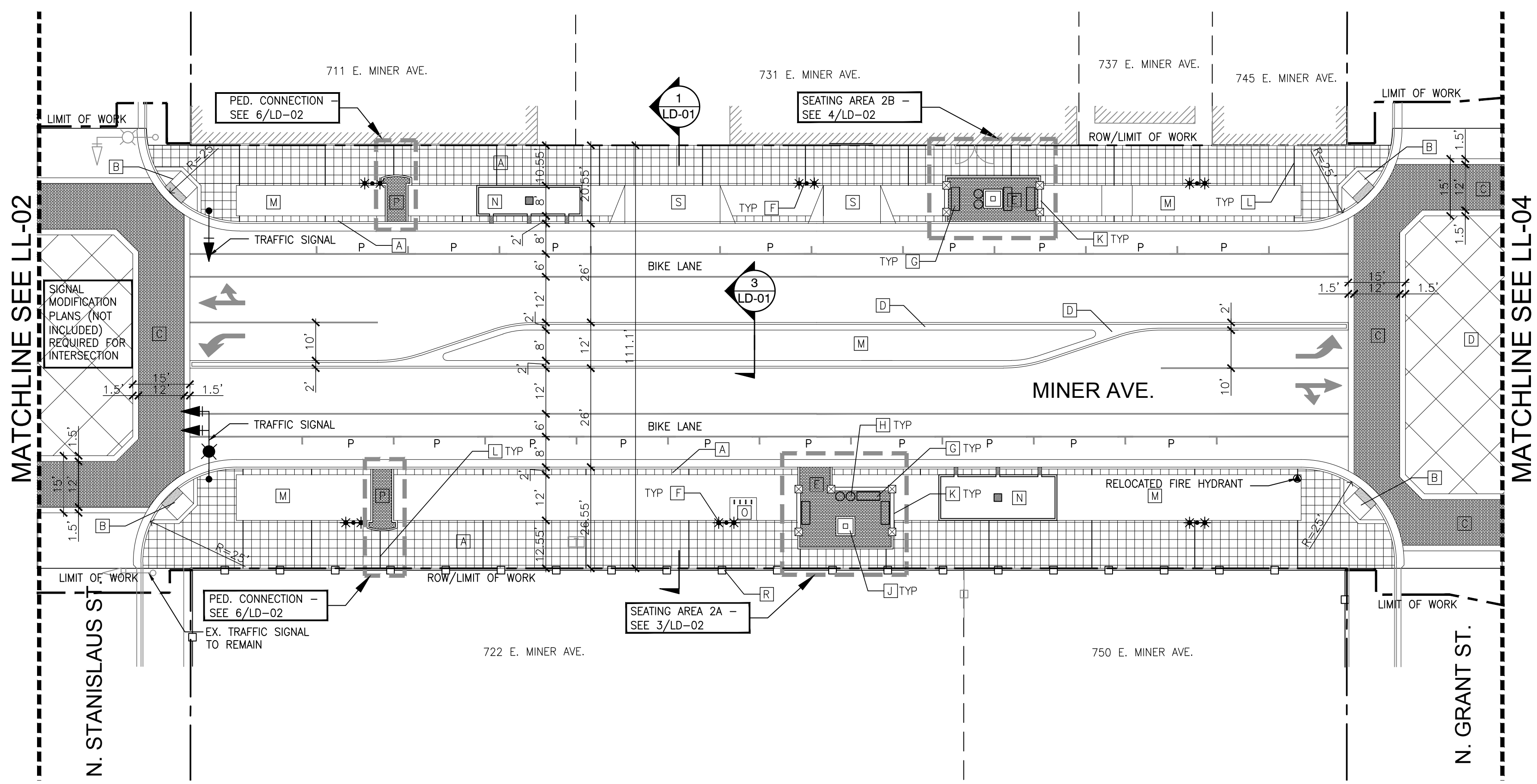
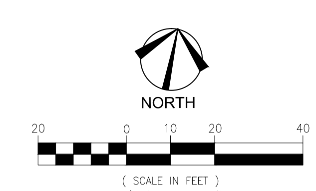


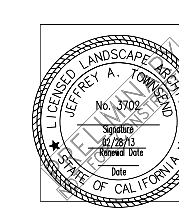
MATERIAL LEGEND

KEY	SITE ELEMENT	DETAIL/REF.
A	CONCRETE WALK	4/LD-3, 5/LD-3
B	CONCRETE CURB RAMP	REFER TO STOCKTON STANDARD DETAILS
C	CROSSWALK	1/LD-3
D	COLORED CONCRETE PAVEMENT	7/LD-3
E	BRICK PAVERS	6/LD-3
F	DECORATIVE STREET LIGHT	SEE ELECTRICAL PLANS
G	BENCH	2/LD-4
H	LITTER RECEPTACLE	6/LD-4
I	BOLLARD	5/LD-4

KEY	SITE ELEMENT	DETAIL/REF.
J	TREE GRATE	4/LD-4
K	SEATING AREA WALL	3/LD-3
L	EXPANSION JOINT	3/LD-3
M	PLANTER AREA	SEE PLANTING PLANS
N	STORMWATER PLANTER	5/LD-1, 6/LD-1
O	BIKE RACK	1/LD-4
P	PEDESTRIAN CONNECTION	6/LD-2
Q	MONUMENT	7/LD-2
R	6' HEIGHT TUBULAR STEEL FENCE	7/LD-4
S	CONCRETE DRIVEWAY APPRON	

NOTE: LOCATIONS OF DRIVEWAYS, SEATING AREAS, STORMWATER PLANTERS, PEDESTRIAN CONNECTIONS AND OTHER IMPROVEMENTS WILL BE CONTROLLED WITH CENTERLINE STATIONING ON FUTURE SUBMITTALS.





50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

REV | DESCRIPTION | BY | APPROVED | DATE

DATE: 02/22/2012
SCALE: H: 20 V: NA
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE STE 300
SACRAMENTO, CA 95834
PHONE (916) 929-3323 FAX (916) 929-1772

IMPROVEMENT PLANS FOR
MINER AVENUE
LAYOUT PLAN
STANISLAUS TO GRANT

CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901

LL-03 OF 4

SHEET 4 OF 25

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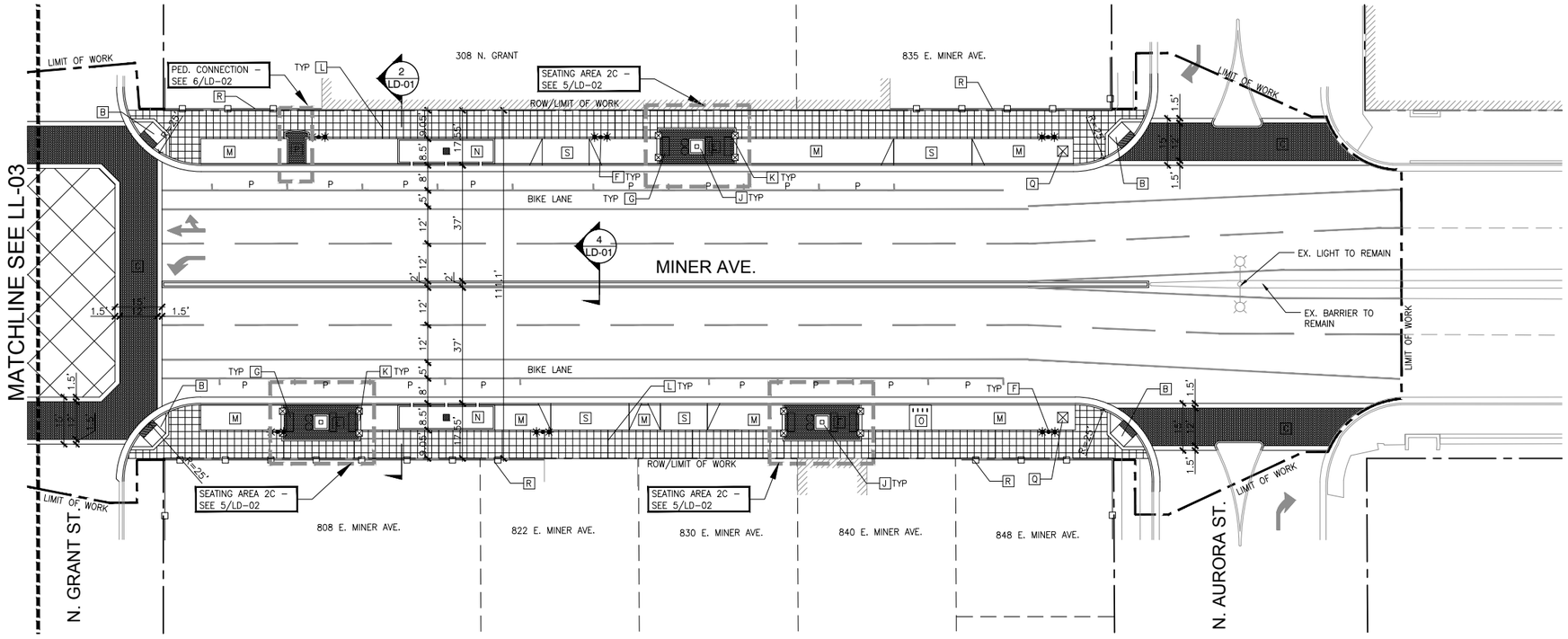

MATERIAL LEGEND

KEY	SITE ELEMENT	DETAIL/REF.
A	CONCRETE WALK	4/LD-3 5/LD-3
B	CONCRETE CURB RAMP	REFER TO STOCKTON STANDARD DETAILS
C	CROSSWALK	1/LD-3
D	COLORED CONCRETE PAVEMENT	7/LD-3
E	BRICK PAVERS	6/LD-3
F	DECORATIVE STREET LIGHT	SEE ELECTRICAL PLANS
G	BENCH	2/LD-4
H	LITTER RECEPTACLE	6/LD-4
I	BOLLARD	5/LD-4

KEY	SITE ELEMENT	DETAIL/REF.
J	TREE GRATE	4/LD-4
K	SEATING AREA WALL	3/LD-4
L	EXPANSION JOINT	3/LD-4
M	PLANTER AREA	SEE PLANTING PLANS
N	STORMWATER PLANTER	5/LD-1 6/LD-1
O	BIKE RACK	1/LD-4
P	PEDESTRIAN CONNECTION	8/LD-2
Q	MONUMENT	7/LD-2
R	6' HEIGHT TUBULAR STEEL FENCE	7/LD-4
S	CONCRETE DRIVEWAY APPRON	

NOTE: LOCATIONS OF DRIVEWAYS, SEATING AREAS, STORMWATER PLANTERS, PEDESTRIAN CONNECTIONS AND OTHER IMPROVEMENTS WILL BE CONTROLLED WITH CENTERLINE STATIONING ON FUTURE SUBMITTALS.

NORTH

20 0 10 20 40

(SCALE IN FEET)
1 inch = 20 ft.

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3302
Signature
01/28/13
Renewal Date
Date
STATE OF CALIFORNIA

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

REV.	DESCRIPTION	BY	DATE
		APPROVED	

DATE: 02/22/2012
SCALE: H: 20 V: NA
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE STE 300
SACRAMENTO, CA 95834
PHONE (916) 920-3323 FAX (916) 929-1773

IMPROVEMENT PLANS FOR
MINER AVENUE LAYOUT PLAN GRANT TO AURORA
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
LL-04 OF 4
SHEET 5 OF 25

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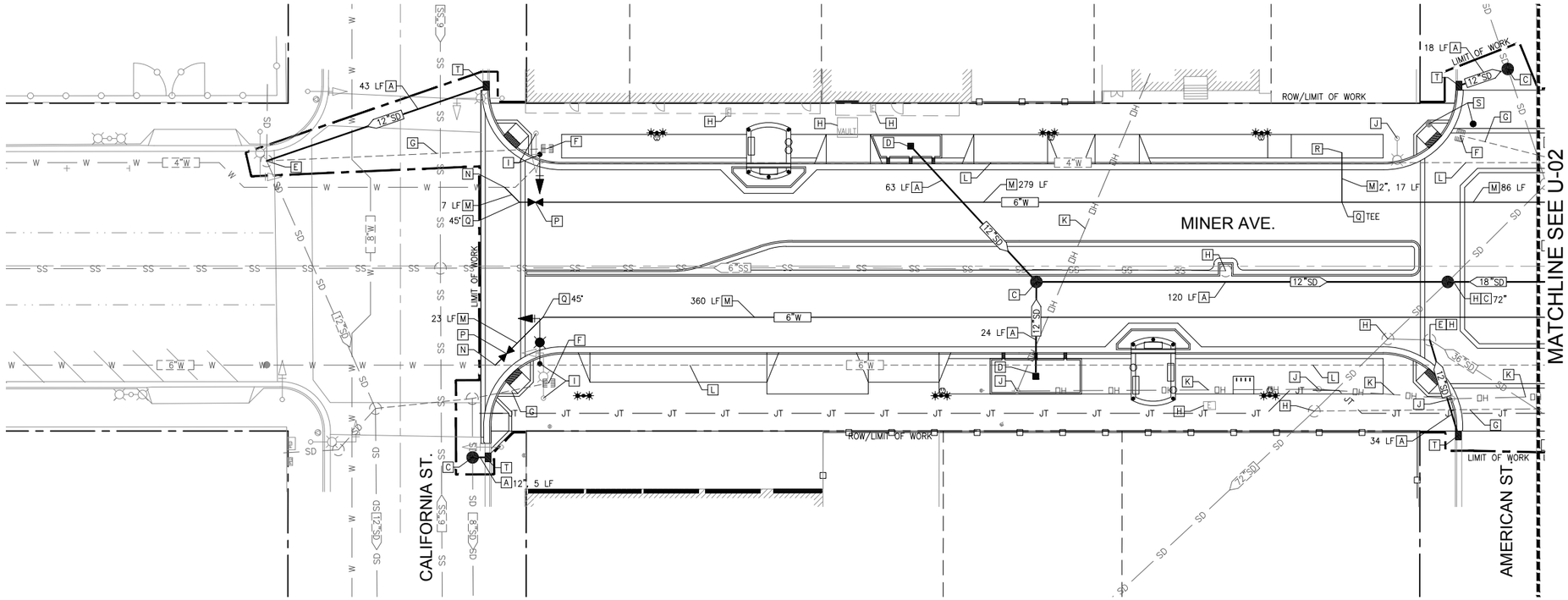

UTILITY LEGEND

EXISTING	DESCRIPTION	PROPOSED
SD	STORM DRAIN PIPE	12"SD
12"SD	STORM DRAIN PIPE TO BE REMOVED	
SS	SANITARY SEWER PIPE	
W	WATER PIPE	6"W
6"W	WATER PIPE TO BE REMOVED	
	JOINT TRENCH	JT
OH	OVERHEAD ELECTRICAL	
	STORM DRAIN MANHOLE	
	STORM DRAIN CATCH BASIN	
	SANITARY SEWER MANHOLE	
	GATE VALVE	
	FIRE HYDRANT	
	STREET LIGHT	
	STREET LIGHT BOX	
	TRAFFIC LIGHT	
	POWER POLE	
	GUY WIRE	
	ELECTRICAL BOX	
	ELECTRICAL OUTLET	
	TELECOM BOX	
	MONUMENT SIGN	

UTILITY KEYNOTES

KEY	SITE ELEMENT	DETAIL/REF.
A	STORM DRAIN PIPE	CITY OF STOCKTON DWG NO. 51
B	REMOVE AND REPLACE EXISTING STORM DRAIN PIPE	
C	STORM DRAIN MANHOLE. 48" UNLESS OTHERWISE NOTED	CITY OF STOCKTON DWG NO. 55
D	DRAIN INLET	B U-5, C U-5
E	CORE NEW CONNECTION TO EXISTING MANHOLE	
F	REMOVE GRATE AND FRAME AND DEMOLISH EXISTING CURB INLET AND CONNECTING PIPE	
G	REMOVE EX STORM DRAIN PIPE. CAP CONNECTION AT MANHOLE	
H	ADJUST RIM TO PROPOSED GRADE	
I	RELOCATE TRAFFIC SIGNAL. REMOVE ATTACHED STREET LIGHT WHERE OCCURES	
J	REMOVE EXISTING POWER POLE, GUY WIRES, AND STREET LIGHT	
K	UNDERGROUND EXISTING OVERHEAD ELECTRICAL. COORDINATE WITH ELECTRICAL COMPANY FOR LOCATION	
L	REMOVE EXISTING WATER PIPE	
M	WATER PIPE	CITY OF STOCKTON DWG NO. 90
N	CONNECT TO EXISTING WATER PIPE	
O	FIRE HYDRANT ASSEMBLY	CITY OF STOCKTON DWG NO. 101
P	GATE VALVE, SIZED PER CONNECTING PIPE	CITY OF STOCKTON DWG NO. 99
Q	WATER FITTING W/ THRUST BLOCKS	CITY OF STOCKTON DWG NO. 100
R	IRRIGATION SERVICE CONNECTION	
S	RELOCATE SURVEY MONUMENT	
T	CURB INLET CATCH BASIN	CITY OF STOCKTON DWG NO. 80
U	REMOVE RIM AND FRAME AND REPLACE WITH CURB INLET COVER	
V	REMOVE EXISTING MANHOLE	
W	CONNECTION BETWEEN UNDERGROUND ELECTRICAL AND EXISTING OVERHEAD	

UTILITY GENERAL NOTES

1. EXISTING UTILITY INFORMATION AND LAYOUT IS BASED ON GIS DATA AND SHOULD NOT BE CONSTRUED AS ACCURATE. A DETAILED SURVEY OF THE SITE WILL BE REQUIRED TO DETERMINE EXISTING UTILITY CONDITIONS AND LOCATIONS. UTILITY PLAN WILL LIKELY CHANGE AS MORE DETAILED EXISTING INFORMATION BECOMES AVAILABLE.
2. EXISTING SURFACE GRADE DATA WAS NOT AVAILABLE AT THE TIME OF PLAN PREPARATION. EXISTING STREET GRADE HAS BEEN ASSUMED TO BE RELATIVELY FLAT. GUTTER SLOPES SHOWN ARE PRELIMINARY AND SUBJECT TO CHANGE AS MORE DETAILED EXISTING SURFACE GRADE INFORMATION BECOMES AVAILABLE.
3. UTILITY INVERT AND DEPTH ELEVATION INFORMATION WAS NOT AVAILABLE AT THE TIME OF PLAN PREPARATION. PROPOSED UTILITY LAYOUT IS SUBJECT TO CHANGE WHEN EXISTING UTILITY INVERT AND DEPTH ELEVATIONS BECOME AVAILABLE.
4. PROPOSED UTILITY SIZES ARE PRELIMINARY AND SUBJECT TO CHANGE WHEN MORE DETAILED SITE INFORMATION IS AVAILABLE.
5. PROPOSED UTILITIES SHALL COMPLY WITH THE CITY OF STOCKTON STANDARD SPECIFICATIONS AND STANDARD DRAWINGS.
6. ALL STORM DRAIN PIPES SHALL BE AS FOLLOWS:
   12" = PVC SDR-35
   >12" = RCP CL III
7. COORDINATE WITH ELECTRICAL UTILITY PROVIDER FOR LOCATION OF UNDERGROUND ELECTRICAL LINE LOCATION.
8. ALL WATER PIPES SHALL BE PVC CLASS 150. THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS AND FITTINGS PER CITY OF STOCKTON STANDARD DRAWING NO. 100.
9. JOINT TRENCH LOCATION IS PRELIMINARY AND SHOWN SCHEMATICALLY. COORDINATE WITH DRY UTILITY COMPANIES FOR DRY UTILITY DESIGN.

NORTH

20 0 10 20 40

(SCALE IN FEET)
1 inch = 20 ft.

REGISTERED PROFESSIONAL ENGINEER
ERIC S. GREENEES
No. 73172
EXP. 12-31-12
CIVIL
STATE OF CALIFORNIA
PRELIMINARY NOT FOR CONSTRUCTION

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

REV.	DESCRIPTION	BY	APPROVED	DATE

DATE: 02/22/2012
SCALE: H: 1"=20' V: NA
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE, STE 300
SACRAMENTO, CA 95834
PHONE (916) 929-3323 FAX (916) 929-1772

IMPROVEMENT PLANS FOR
MINER AVENUE
UTILITY LAYOUT PLAN
CALIFORNIA TO AMERICAN
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
U-01 OF 5
SHEET 6 OF 25

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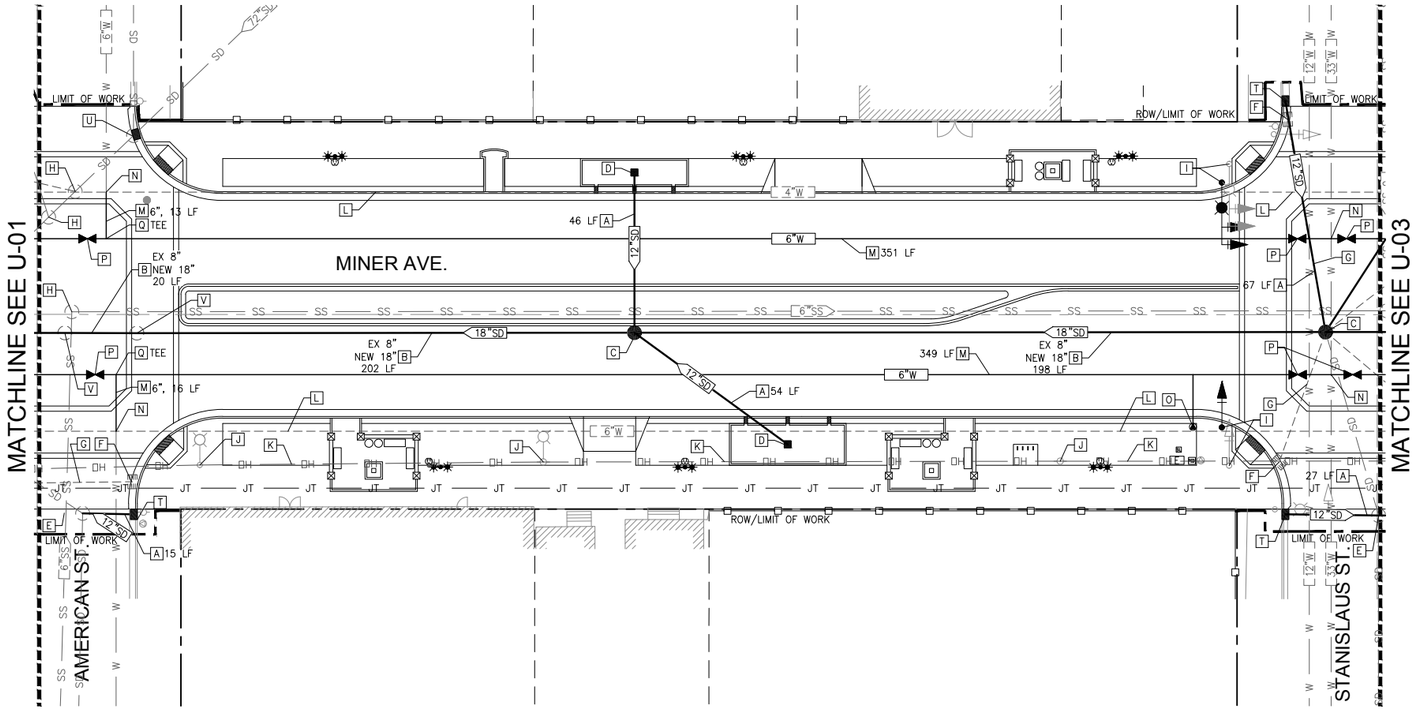

UTILITY LEGEND

EXISTING	DESCRIPTION	PROPOSED
SD	STORM DRAIN PIPE	12"SD
12"SD	STORM DRAIN PIPE TO BE REMOVED	
SS	SANITARY SEWER PIPE	
W	WATER PIPE	6"W
6"W	WATER PIPE TO BE REMOVED	
JT	JOINT TRENCH	JT
OH	OVERHEAD ELECTRICAL	
	STORM DRAIN MANHOLE	
	STORM DRAIN CATCH BASIN	
	SANITARY SEWER MANHOLE	
	GATE VALVE	
	FIRE HYDRANT	
	STREET LIGHT	
	STREET LIGHT BOX	
	TRAFFIC LIGHT	
	POWER POLE	
	GUY WIRE	
E	ELECTRICAL BOX	E
	ELECTRICAL OUTLET	
	TELECOM BOX	
	MONUMENT SIGN	

UTILITY KEYNOTES

KEY	SITE ELEMENT	DETAIL/REF.
A	STORM DRAIN PIPE	CITY OF STOCKTON DWG NO. 51
B	REMOVE AND REPLACE EXISTING STORM DRAIN PIPE	
C	STORM DRAIN MANHOLE. 48" UNLESS OTHERWISE NOTED	CITY OF STOCKTON DWG NO. 55
D	DRAIN INLET	B U-5, C U-5
E	CORE NEW CONNECTION TO EXISTING MANHOLE	
F	REMOVE GRATE AND FRAME AND DEMOLISH EXISTING CURB INLET AND CONNECTING PIPE	
G	REMOVE EX STORM DRAIN PIPE. CAP CONNECTION AT MANHOLE	
H	ADJUST RIM TO PROPOSED GRADE	
I	RELOCATE TRAFFIC SIGNAL. REMOVE ATTACHED STREET LIGHT WHERE OCCURES	
J	REMOVE EXISTING POWER POLE, GUY WIRES, AND STREET LIGHT	
K	UNDERGROUND EXISTING OVERHEAD ELECTRICAL. COORDINATE WITH ELECTRICAL COMPANY FOR LOCATION	
L	REMOVE EXISTING WATER PIPE	
M	WATER PIPE	CITY OF STOCKTON DWG NO. 90
N	CONNECT TO EXISTING WATER PIPE	
O	FIRE HYDRANT ASSEMBLY	CITY OF STOCKTON DWG NO. 101
P	GATE VALVE, SIZED PER CONNECTING PIPE	CITY OF STOCKTON DWG NO. 99
Q	WATER FITTING W/ THRUST BLOCKS	CITY OF STOCKTON DWG NO. 100
R	IRRIGATION SERVICE CONNECTION	
S	RELOCATE SURVEY MONUMENT	
T	CURB INLET CATCH BASIN	CITY OF STOCKTON DWG NO. 80
U	REMOVE RIM AND FRAME AND REPLACE WITH CURB INLET COVER	
V	REMOVE EXISTING MANHOLE	
W	CONNECTION BETWEEN UNDERGROUND ELECTRICAL AND EXISTING OVERHEAD	

UTILITY GENERAL NOTES

1. EXISTING UTILITY INFORMATION AND LAYOUT IS BASED ON GIS DATA AND SHOULD NOT BE CONSTRUED AS ACCURATE. A DETAILED SURVEY OF THE SITE WILL BE REQUIRED TO DETERMINE EXISTING UTILITY CONDITIONS AND LOCATIONS. UTILITY PLAN WILL LIKELY CHANGE AS MORE DETAILED EXISTING INFORMATION BECOMES AVAILABLE.
2. EXISTING SURFACE GRADE DATA WAS NOT AVAILABLE AT THE TIME OF PLAN PREPARATION. EXISTING STREET GRADE HAS BEEN ASSUMED TO BE RELATIVELY FLAT. GUTTER SLOPES SHOWN ARE PRELIMINARY AND SUBJECT TO CHANGE AS MORE DETAILED EXISTING SURFACE GRADE INFORMATION BECOMES AVAILABLE.
3. UTILITY INVERT AND DEPTH ELEVATION INFORMATION WAS NOT AVAILABLE AT THE TIME OF PLAN PREPARATION. PROPOSED UTILITY LAYOUT IS SUBJECT TO CHANGE WHEN EXISTING UTILITY INVERT AND DEPTH ELEVATIONS BECOME AVAILABLE.
4. PROPOSED UTILITY SIZES ARE PRELIMINARY AND SUBJECT TO CHANGE WHEN MORE DETAILED SITE INFORMATION IS AVAILABLE.
5. PROPOSED UTILITIES SHALL COMPLY WITH THE CITY OF STOCKTON STANDARD SPECIFICATIONS AND STANDARD DRAWINGS.
6. ALL STORM DRAIN PIPES SHALL BE AS FOLLOWS:
   12" = PVC SDR-35
   >12" = RCP CL III
7. COORDINATE WITH ELECTRICAL UTILITY PROVIDER FOR LOCATION OF UNDERGROUND ELECTRICAL LINE LOCATION.
8. ALL WATER PIPES SHALL BE PVC CLASS 150. THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS AND FITTINGS PER CITY OF STOCKTON STANDARD DRAWING NO. 100.
9. JOINT TRENCH LOCATION IS PRELIMINARY AND SHOWN SCHEMATICALLY. COORDINATE WITH DRY UTILITY COMPANIES FOR DRY UTILITY DESIGN.

NORTH

20 0 10 20 40

(SCALE IN FEET)
1 inch = 20 ft.

REGISTERED PROFESSIONAL ENGINEER
ERIC S. GREENEES
No. 73172
EXP. 12-31-12
STATE OF CALIFORNIA
CIVIL
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JACOBS
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IMPROVEMENT PLANS FOR
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UTILITY LAYOUT PLAN
AMERICAN TO STANISLAUS
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
U-02 OF **5**
SHEET **7** OF **25**

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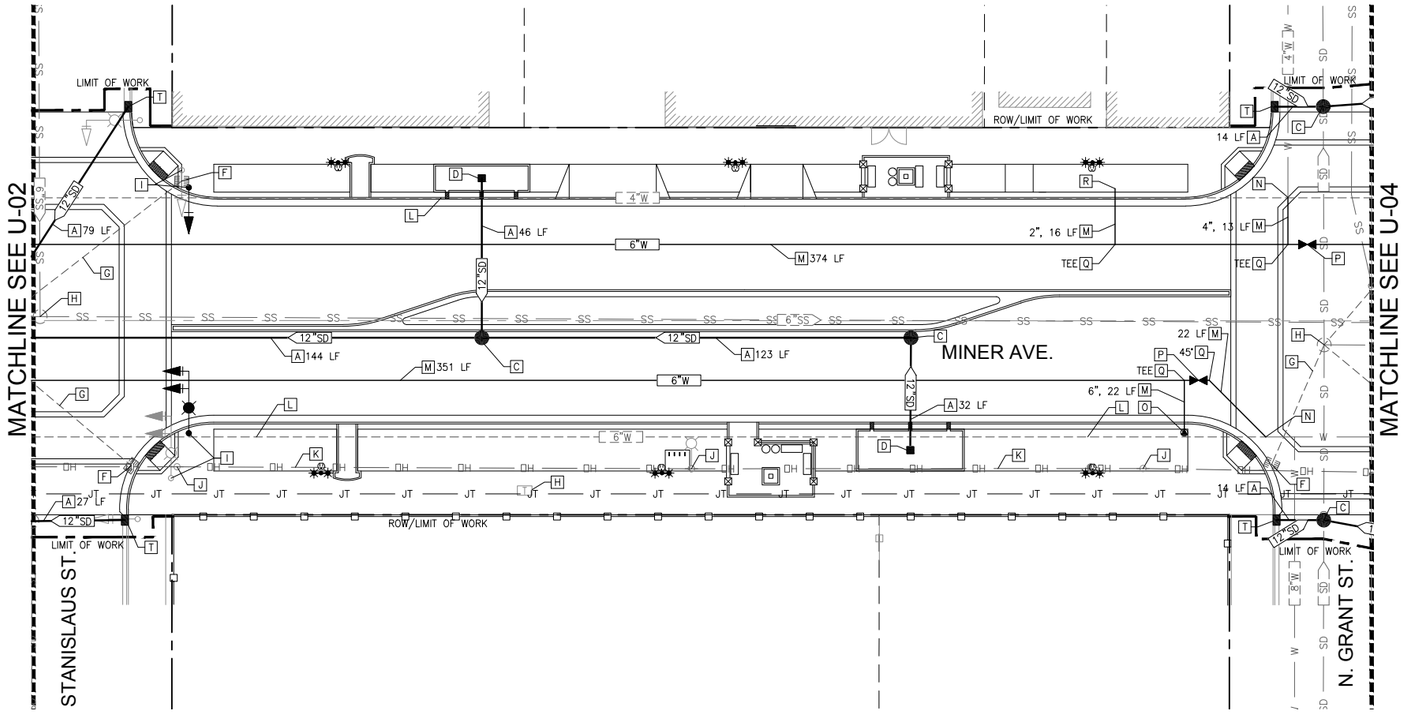

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EXISTING	DESCRIPTION	PROPOSED
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12"SD	STORM DRAIN PIPE TO BE REMOVED	
SS	SANITARY SEWER PIPE	
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6"W	WATER PIPE TO BE REMOVED	
	JOINT TRENCH	JT
OH	OVERHEAD ELECTRICAL	
	STORM DRAIN MANHOLE	
	STORM DRAIN CATCH BASIN	
	SANITARY SEWER MANHOLE	
	GATE VALVE	
	FIRE HYDRANT	
	STREET LIGHT	
	STREET LIGHT BOX	
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	GUY WIRE	
	ELECTRICAL BOX	
	ELECTRICAL OUTLET	
	TELECOM BOX	
	MONUMENT SIGN	

UTILITY KEYNOTES

KEY	SITE ELEMENT	DETAIL/REF.
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B	REMOVE AND REPLACE EXISTING STORM DRAIN PIPE	
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D	DRAIN INLET	B U-5
E	CORE NEW CONNECTION TO EXISTING MANHOLE	C U-5
F	REMOVE GRATE AND FRAME AND DEMOLISH EXISTING CURB INLET AND CONNECTING PIPE	
G	REMOVE EX STORM DRAIN PIPE. CAP CONNECTION AT MANHOLE	
H	ADJUST RIM TO PROPOSED GRADE	
I	RELOCATE TRAFFIC SIGNAL. REMOVE ATTACHED STREET LIGHT WHERE OCCURES	
J	REMOVE EXISTING POWER POLE, GUY WIRES, AND STREET LIGHT	
K	UNDERGROUND EXISTING OVERHEAD ELECTRICAL. COORDINATE WITH ELECTRICAL COMPANY FOR LOCATION	
L	REMOVE EXISTING WATER PIPE	
M	WATER PIPE	CITY OF STOCKTON DWG NO. 90
N	CONNECT TO EXISTING WATER PIPE	
O	FIRE HYDRANT ASSEMBLY	CITY OF STOCKTON DWG NO. 101
P	GATE VALVE, SIZED PER CONNECTING PIPE	CITY OF STOCKTON DWG NO. 99
Q	WATER FITTING W/ THRUST BLOCKS	CITY OF STOCKTON DWG NO. 100
R	IRRIGATION SERVICE CONNECTION	
S	RELOCATE SURVEY MONUMENT	
T	CURB INLET CATCH BASIN	CITY OF STOCKTON DWG NO. 80
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REGISTERED PROFESSIONAL ENGINEER
ERIC S. GREENEES
No. 7372
EXP. 12-31-12
CIVIL
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IMPROVEMENT PLANS FOR
MINER AVENUE
UTILITY LAYOUT PLAN
STANISLAUS TO GRANT
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
U-03 OF 5
SHEET 8 OF 25

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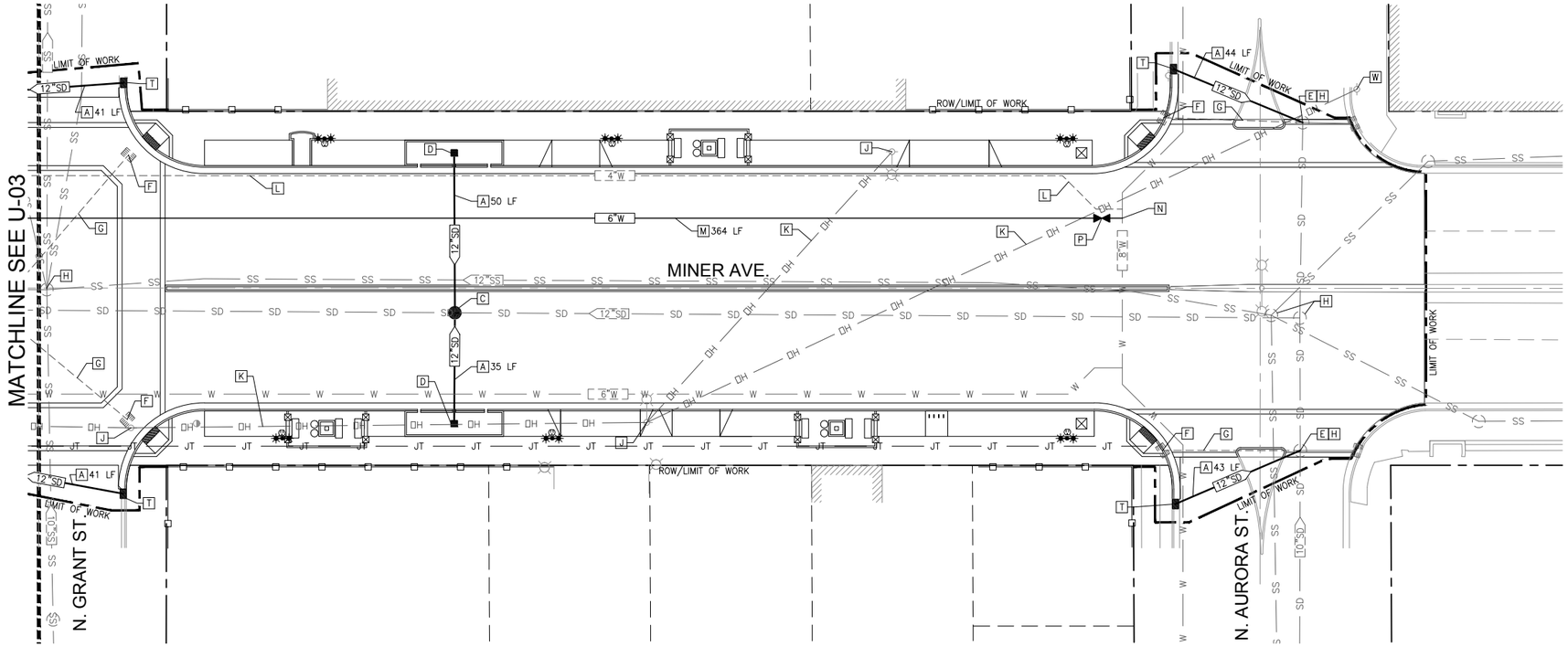

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IMPROVEMENT PLANS FOR
MINER AVENUE
UTILITY LAYOUT PLAN
GRANT TO AURORA
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
U-04 OF 5
SHEET 9 OF 25

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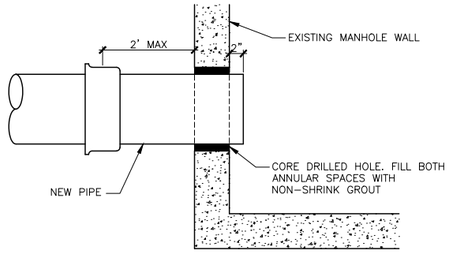
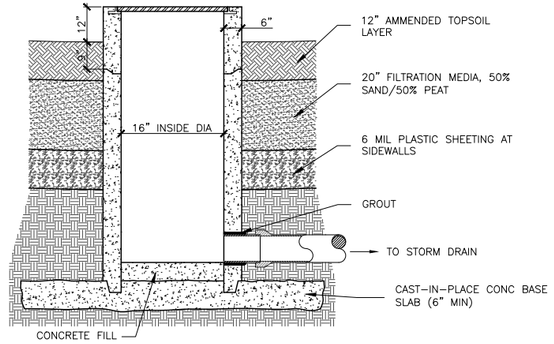


C CONNECTION TO EXISTING MANHOLE

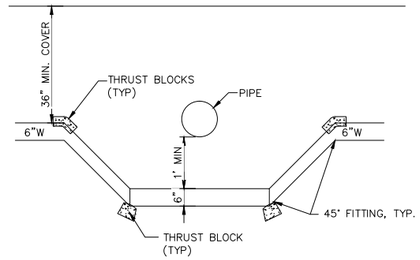
NOT TO SCALE



NOTES:
1. MINIMUM WALL THICKNESS IS 6".
2. REINFORCE WALLS WITH #4 BARS AT 12" O.C. EACH WAY WITH 2" MIN COVER FROM INSIDE FACE.

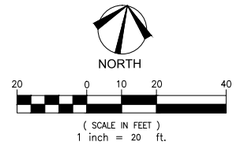
B CATCH BASIN

NOT TO SCALE



A WATER CROSSING SECTION

NOT TO SCALE



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IMPROVEMENT PLANS FOR
MINER AVENUE UTILITY DETAILS
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901

U-05 OF 5

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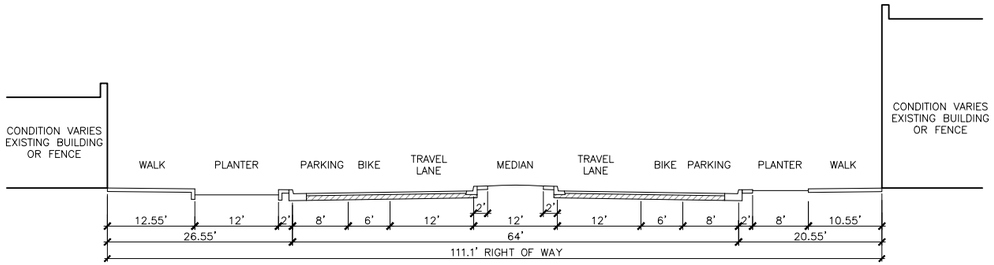
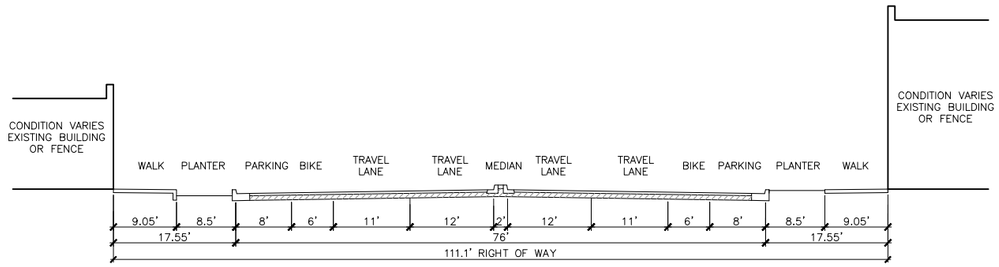


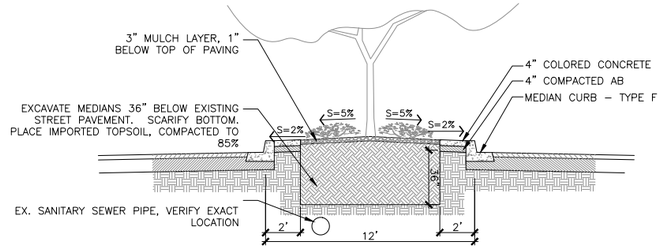
1 CROSS SECTION - 2 LANES (WEST OF GRANT ST.)

1" = 10'



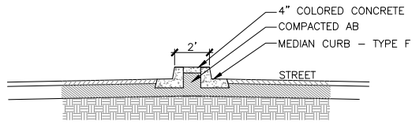
2 CROSS SECTION - 4 LANES (EAST OF GRANT ST.)

1" = 10'



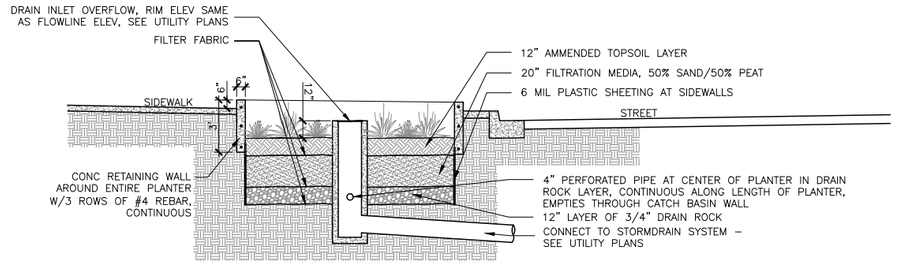
3 PLANTED MEDIAN SECTION

1/4" = 1'–0"



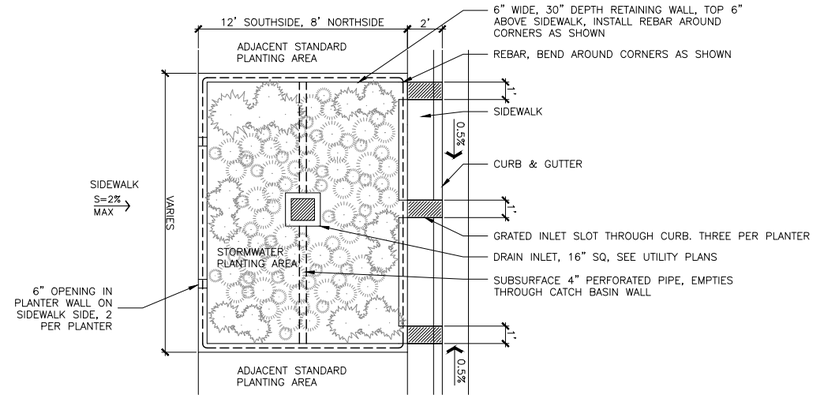
4 NARROW MEDIAN - SECTION

1/4" = 1'–0"



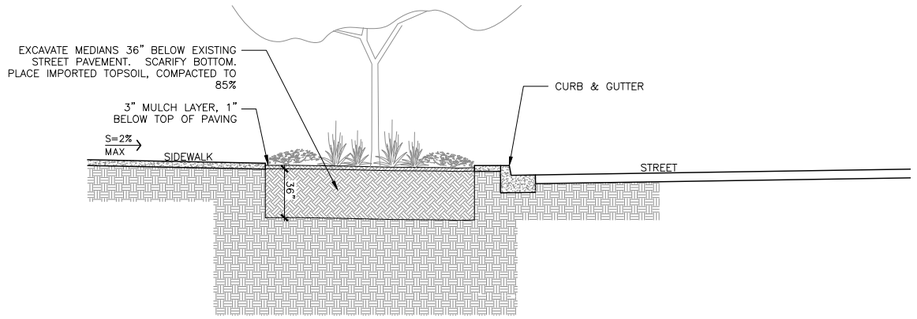
5 STORMWATER PLANTER - SECTION

1/4" = 1'–0"



6 STORMWATER PLANTER - PLAN

1/4" = 1'–0"



7 STANDARD PLANTER - SECTION

1/4" = 1'–0"

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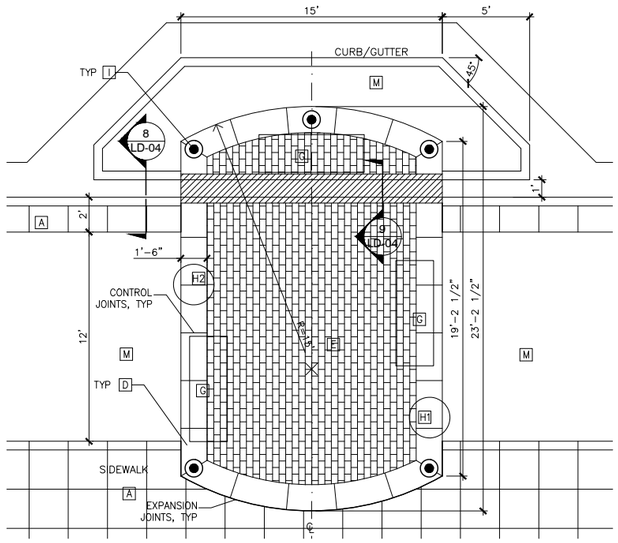
IMPROVEMENT PLANS FOR
MINER AVENUE
CROSS SECTIONS
AND CONSTRUCTION DETAILS
CITY OF STOCKTON CALIFORNIA

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOMSONS
No. 3702
Signature
12/28/13
Renewal Date
Date
STATE OF CALIFORNIA
PRELIMINARY

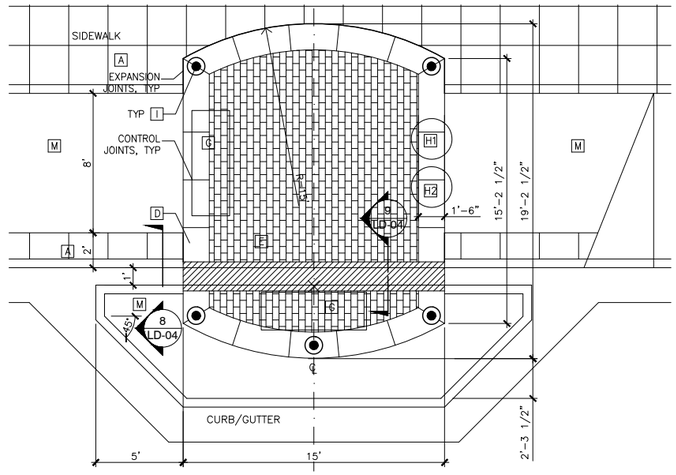
PROJECT NO: F7W76901
LD-01 OF 4
SHEET 11 OF 25

P:\Projects\F7W76901_Miner\p2Drawings\F7W76901_UDP\CD\F7W76901_ENLARGEMENTS-DET.DWG 2-17-12 11:32:32 AM Greenees



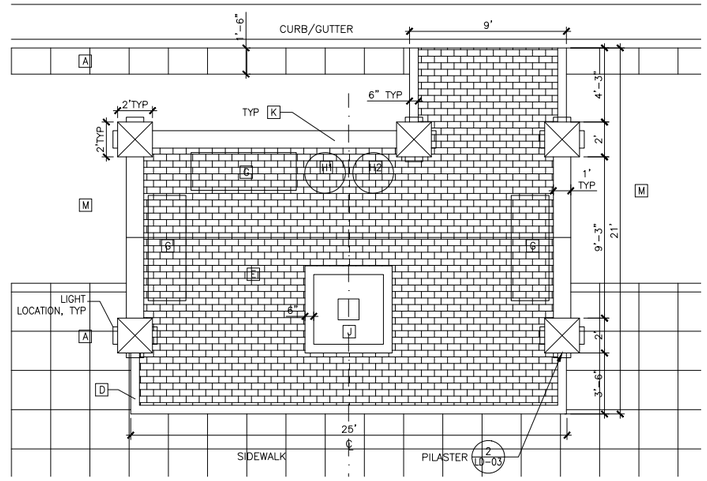
1 SEATING AREA 1A

1/4" = 1'-0"



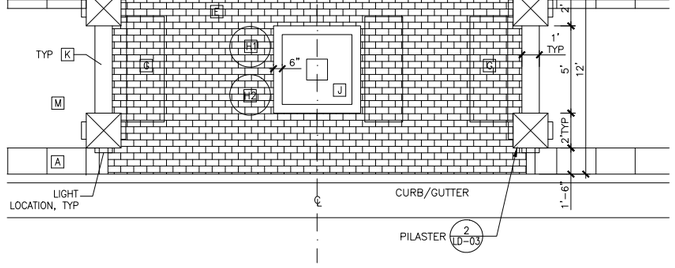
2 SEATING AREA 1B

1/4" = 1'-0"



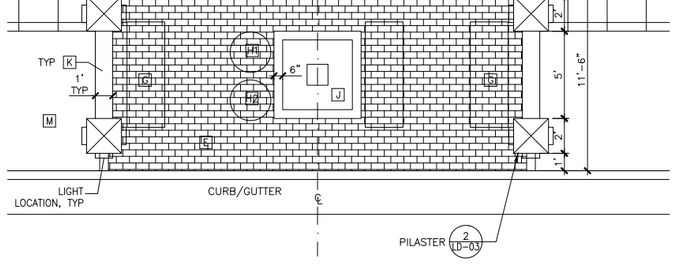
3 SEATING AREA 2A

1/4" = 1'-0"



4 SEATING AREA 2B

1/4" = 1'-0"



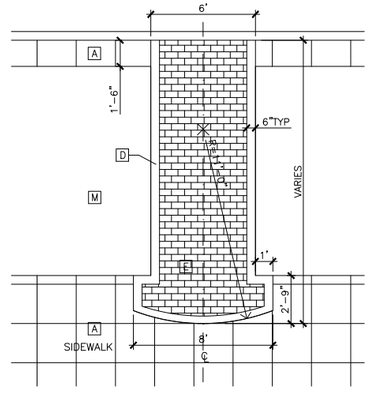
5 SEATING AREA 2C

1/4" = 1'-0"

MATERIAL LEGEND

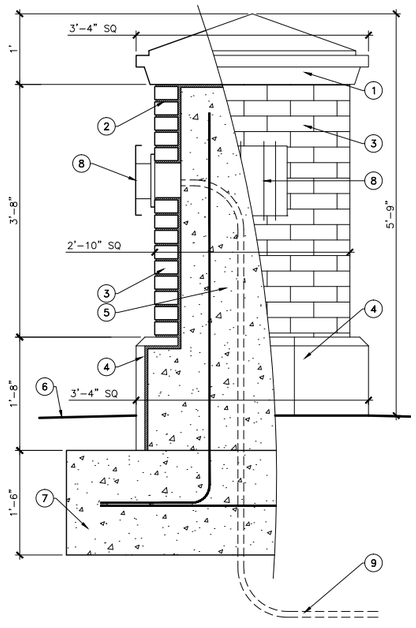
KEY	SITE ELEMENT	DETAIL/REF.
A	CONCRETE WALK	4 LD-3, 5 LD-3
B	CONCRETE CURB RAMP	REFER TO STOCKTON STANDARD DETAILS
C	CROSSWALK	1 LD-3
D	COLORED CONCRETE PAVEMENT	7 LD-3
E	BRICK PAVERS	6 LD-3
F	DECORATIVE STREET LIGHT	SEE ELECTRICAL PLANS
G	BENCH	2 LD-4
H	LITTER RECEPTACLE (H1 TRASH, H2 RECYCLING)	6 LD-4
I	BOLLARD	5 LD-4

KEY	SITE ELEMENT	DETAIL/REF.
J	TREE GRATE	4 LD-4
K	SEATING AREA WALL	3 LD-3
L	EXPANSION JOINT	3 LD-3
M	PLANTER AREA	SEE PLANTING PLANS
N	STORMWATER PLANTER	5 LD-3, 6 LD-3
O	BIKE RACK	1 LD-4
P	PEDESTRIAN CONNECTION	6 LD-2
Q	MONUMENT	7 LD-2
R	6' HEIGHT TUBULAR STEEL FENCE	7 LD-4
S	CONCRETE DRIVEWAY APPRON	



6 PEDESTRIAN CONNECTION

1/4" = 1'-0"



7 MONUMENT

1" = 1'-0"

KEY NOTES:

1. 40" SQ PRECAST CAP, SMOOTH FINISH, LIGHT GRAY COLOR
2. 3/8" MORTAR JOINT
3. STANDARD MODULAR CLAY BRICK
4. 1-1/2" THICK PRECAST CONC VENEER, LIGHT SANDBLAST FINISH, LIGHT TAN COLOR. BUTT JOINT (NO MORTAR) ON EXTERIOR JOINTS. MITERED CORNER JOINTS
5. CIP CONC OR CMU BASE - REBAR PER STRUCTURAL
6. FINISH GRADE, SLOPE AWAY FROM MONUMENT.
7. CONC FOOTING, SIZE/REINFORCEMENT/BASE PER STRUCTURAL/GEOTECH REPORT
8. WALL LIGHT, ONE ON EACH SIDE OF MONUMENT
9. ELECTRICAL CONDUIT

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3702
Signature Date
Renewal Date
STATE OF CALIFORNIA

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE
		BY APPROVED

DATE: 02/22/2012
SCALE: H: 1"=20' V: N.A.
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE, STE 300
SACRAMENTO, CALIFORNIA 95834
PHONE (916) 929-3323 FAX (916) 929-1772

IMPROVEMENT PLANS FOR
MINER AVENUE ENLARGEMENTS AND CONSTRUCTIONS DETAILS
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
LD-02 OF 4
SHEET 12 OF 25

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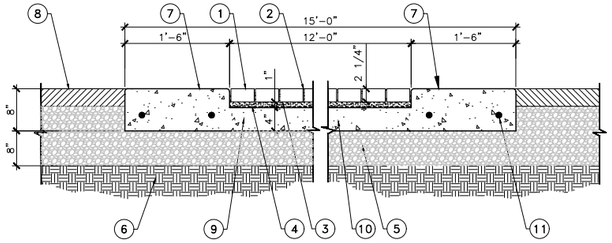


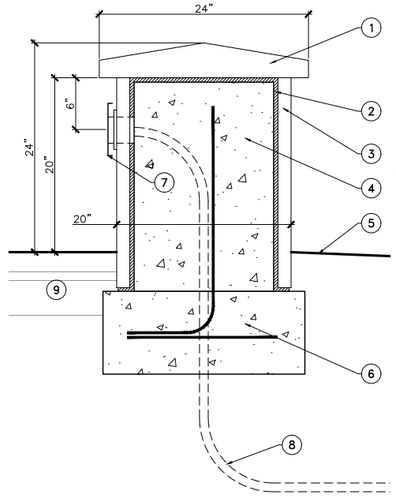
KEY NOTES:

1. TRUE 4" X 8" X 2-1/4" BRICK PAVER AVAILABLE FROM H.C. MUDDOX, 530-795-4400, INSTALL RUNNING BOND PATTERN. COLORS 33% OLD TOWN RED, 33% MOUNTAIN ROSE, 33% DUSTY ROSE. DO NOT CUT PAVERS TO LESS THAN 2" WIDTH OR LENGTH (INCREASE JOINT WIDTH IF NECESSARY).
2. SAND SWEPT JOINT - 1/8" WIDTH, MAY BE INCREASED TO 1/4" MAX WIDTH IF NECESSARY TO AVOID CUTTING PAVERS TO LESS THAN 2". MAINTAIN CONSISTENT JOINT WIDTH. USE TECHNISEAL HP POLYMERIC JOINTING SAND OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
3. 1" SAND BEDDING COURSE.
4. GEOTEXTILE FABRIC - WRAP AT EDGES TO MIDPOINT OF PAVER AS SHOWN.
3. COMPACTED AGGREGATE BASE. REFER TO GEOTECHNICAL REPORT FOR SPECIFICATIONS.
4. COMPACTED SUBGRADE. REFER TO GEOTECHNICAL REPORT FOR SPECIFICATIONS.
5. 18" COLORED CONCRETE BAND. LIGHT BROOM FINISH - COLOR: PALOMINO #5447 BY DAVIS COLORS.
6. ASPHALT PAVING, SEE CIVIL PLANS.
7. NO. 4 REBAR @ 24" O.C., 2" CLR.
8. 4" CONCRETE BASE.
9. NO. 4 REBAR CONTINUOUS, TYP.

NOTE: PLACE EXPANSION JOINTS PERPENDICULAR TO CROSSWALK AT EQUAL INTERVALS, 30' MAX SPACING.

1 BRICK PAVER CROSSWALK

NTS

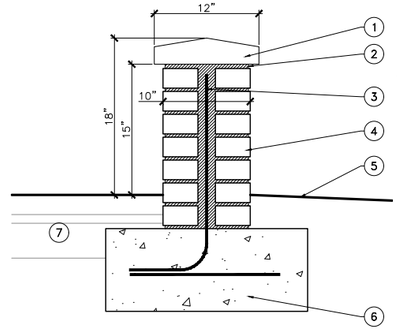


KEY NOTES:

1. 24" SQ PRECAST CAP, SMOOTH FINISH, LIGHT GRAY COLOR
2. 1/2" MORTAR
3. 1-1/2" THICK PRECAST CONC VENEER, LIGHT SANDBLAST FINISH, LIGHT TAN COLOR
4. CIP CONC OR CMU BASE
5. FINISH GRADE, SLOPE AWAY FROM PILASTER.
6. CONC FOOTING, SIZE/REINFORCEMENT/BASE PER STRUCTURAL/GEOTECH REPORT
7. WALL LIGHT, SEE ENLARGEMENT PLANS FOR LOCATIONS, REFER TO ELECTRICAL PLANS
8. ELECTRICAL CONDUIT
9. ADJACENT PAVING

2 SEATING AREA PILASTER

NTS

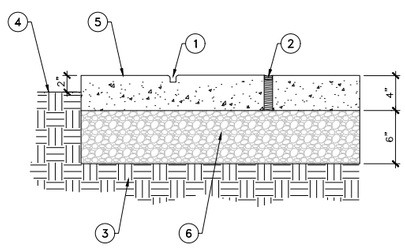


KEY NOTES:

1. 12" W PRECAST CAP, SMOOTH FINISH, LIGHT GRAY COLOR
2. 3/8" MORTAR JOINT, RAKED
3. SOLID MORTAR CORE W/REBAR
4. STANDARD MODULAR CLAY BRICK AVAILABLE FROM H.C. MUDDOX, 530-795-4400. COMMON SELECT COLOR.
5. FINISH GRADE, SLOPE AWAY FROM PILASTER
6. CONC FOOTING, SIZE/REINFORCEMENT/BASE PER STRUCTURAL/GEOTECH REPORT
7. ADJACENT PAVING

3 SEATING AREA WALL

NTS



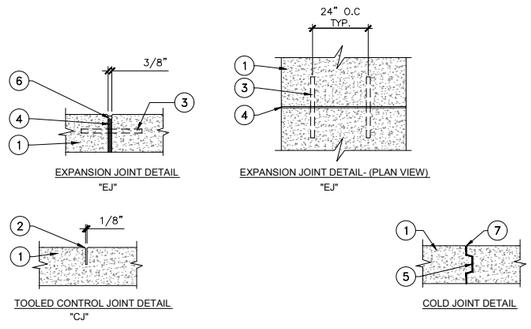
SECTION

KEY NOTES:

1. TOOLED CONTROL JOINT OR SAW CUT CONTROL JOINT. REFER TO DETAIL 5, THIS SHEET, FOR JOINT DETAILS.
2. EXPANSION JOINT. REFER TO DETAIL 5, THIS SHEET, FOR JOINT DETAILS.
3. COMPACTED SUBGRADE. REFER TO GEOTECHNICAL REPORT FOR SPECIFICATIONS.
4. FINISH GRADE
5. CONCRETE WALK WITH LIGHT BROOM FINISH PER CITY OF STOCKTON STANDARD DRAWING NO. 25D.
6. COMPACTED AGGREGATE BASE. REFER TO GEOTECHNICAL REPORT FOR SPECIFICATIONS.

4 CONCRETE JOINT SPACING

NTS



EXPANSION JOINT DETAIL "EJ"

EXPANSION JOINT DETAIL- (PLAN VIEW) "EJ"

TOOLED CONTROL JOINT DETAIL "CJ"

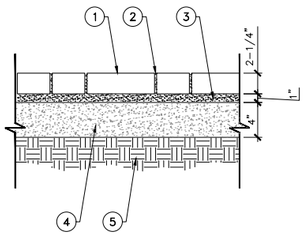
COLD JOINT DETAIL

KEY NOTES:

1. CONCRETE PAVING PER PLANS AND SPECIFICATIONS.
2. TOOLED CONTROL JOINT, 1/8" WIDE x 1-1/2" DEEP WITH 3/8" TOOLED RADIUS. REFER TO LAYOUT PLAN FOR JOINT PATTERN.
3. NO.4 X 12" DOWELS @24" O.C. LOCATED HORIZONTALLY IN CENTER OF SLAB.
4. EXPANSION JOINT, 3/8" THICK ASPHALT-IMPREGNATED FELT; FULL JOINT DEPTH WITH 3/8" TOOLED RADIUS.
5. PLASTIC KEYWAY JOINT, FULL WIDTH AND DEPTH OF SLAB.
6. JOINT SEALANT (REFER TO SPECIFICATIONS); COLOR TO MATCH ADJACENT PAVING.
7. 3/8" WIDE COLD JOINT.
8. EXPANSION JOINT SPACING PER PLAN.

5 CONCRETE JOINT SPACING

SCALE: 1"=1'-0"

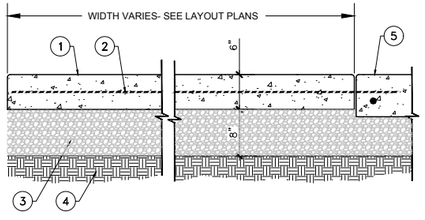


KEY NOTES:

1. TRUE 4" X 8" X 2-1/4" BRICK PAVER AVAILABLE FROM H.C. MUDDOX, 530-795-4400. INSTALL RUNNING BOND PATTERN. COLORS 33% OLD TOWN RED, 33% MOUNTAIN ROSE, 33% DUSTY ROSE. DO NOT CUT PAVERS TO LESS THAN 2" WIDTH OR LENGTH (INCREASE JOINT WIDTH IF NECESSARY).
2. 1/2" MORTARED JOINTS.
3. MORTAR BED.
4. CONCRETE SLAB.
5. COMPACTED SUBGRADE. REFER TO GEOTECHNICAL REPORT FOR SPECIFICATIONS.

6 BRICK PAVERS

SCALE: 1-1/2"=1'-0"



KEY NOTES:

1. INTEGRAL COLORED CONCRETE PAVING. COLOR: PALOMINO #5447 BY DAVIS COLORS.
2. CONCRETE REINFORCEMENT. #4 REBAR @24" O.C. BOTH WAYS. EXTEND INTO ADJACENT CONCRETE BANDS OR GUTTER. (MIN 12" DEPTH).
3. COMPACTED AGGREGATE BASE. REFER TO GEOTECHNICAL REPORT FOR SPECIFICATIONS.
4. COMPACTED SUBGRADE. REFER TO GEOTECHNICAL REPORT FOR SPECIFICATIONS.
5. ADJACENT CROSSWALK, SEE LAYOUT PLANS.

7 COLORED CONCRETE PAVING

SCALE: 1"=1'-0"

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3702
Signature
02/29/12
Renewal Date
Date
STATE OF CALIFORNIA

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

DATE	DESCRIPTION	REV	BY APPROVED

DATE: 02/22/2012
SCALE: H: VARIES V: NA
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE STE 300
SACRAMENTO, CA 95834
PHONE (916) 929-1022 FAX (916) 929-1772

IMPROVEMENT PLANS FOR
MINER AVENUE
CONSTRUCTION DETAILS
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
LD-03 OF 4
SHEET 13 OF 25

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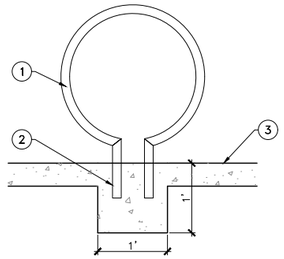
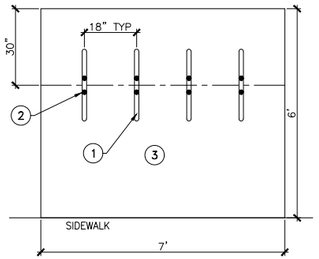


SECTION



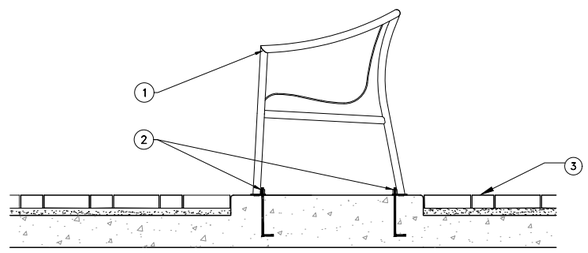
PLAN

KEY NOTES:

1. BIKE RACK
   MANUFACTURER: LANDSCAPE FORMS
   MODEL: RING, INSTALL PER MANUFACTURER'S INSTRUCTIONS.
2. LEGS, EMBED RACKS INTO CONCRETE FOOTING PER MANUFACTURERS RECOMMENDATION.
3. 4" CONC PAD TO MATCH ADJACENT SIDEWALK

1 BIKE RACK

NTS

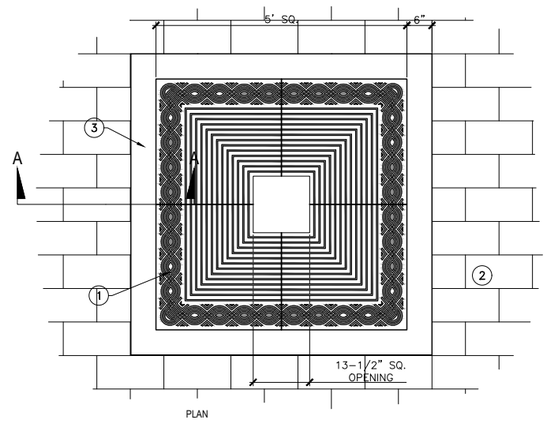


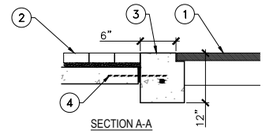
KEY NOTES:

1. BENCH MANUFACTURER: LANDSCAPE FORMS.
   MODEL: TOWN SQUARE, INSTALL PER MANUFACTURER'S INSTRUCTIONS.
2. SECURE TO CONCRETE WITH ANCHOR BOLTS PER MANUFACTURER'S RECOMMENDATIONS. INCREASE DEPTH OF CONCRETE IF NECESSARY.
3. CONDITIONS VARY, ADJACENT PAVING OR PLANTER

2 BENCH MOUNTING

1-1/2" = 1'-0"





KEY NOTES:

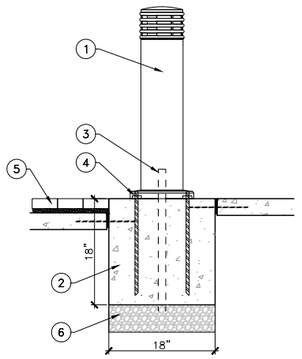
1. 5' CHINOOK TREE GRATE WITH FRAME. AVAILABLE FROM URBAN ACCESSORIES.
2. BRICK PAVERS
3. CONCRETE COLLAR WITH CONTINUOUS NO. 4 REINFORCING BAR.
4. SLIP DOWEL REBAR

4 TREE GRATE

NTS

3 NOT USED

NOT TO SCALE

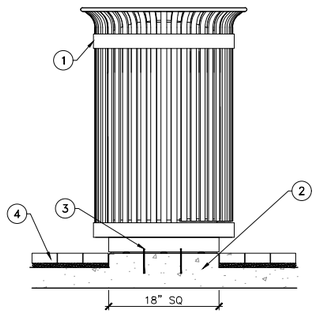


KEY NOTES:

1. LIGHTED BOLLARD MANUFACTURER: LANDSCAPE FORMS MODEL: ANNAPOLIS W/LED BULB, INSTALL PER MANUFACTURER'S INSTRUCTIONS. SEE SPECIFICATIONS FOR FINISH AND COLOR.
2. POURED CONCRETE FOOTING INTEGRAL WITH COLORED CONC BAND AROUND BRICK PAVING.
3. CONDUIT. REFER TO ELECTRICAL PLANS.
4. SECURE TO PAVEMENT WITH CAST-IN-PLACE J-BOLT PER MANUFACTURER'S RECOMMENDATIONS.
5. CONDITIONS VARY, ADJACENT BRICK PAVING OR PLANTER.
6. AGGREGATE BASE.

5 BOLLARD

NTS

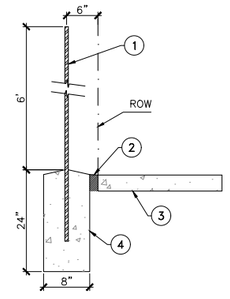


KEY NOTES:

1. TRASH/RECYCLING RECEPTACLE MANUFACTURER: VICTOR STANLEY MODEL: SD-42, INSTALL PER MANUFACTURER'S INSTRUCTIONS. SEE SPECIFICATIONS FOR FINISH AND COLOR. POSITION SUCH THAT ALLOWS FOR ADEQUATE SIDE-DOOR OPENING. (H-1 TRASH/H-2 RECYCLE)
2. 18" SQ X 6" DEEP CONCRETE PAD.
3. SECURE TO PAVEMENT WITH ANCHOR BOLTS PER MANUFACTURER'S RECOMMENDATIONS.
4. CONDITIONS VARY, ADJACENT BRICK PAVING OR PLANTER.

6 LITTER RECEPTACLE

SCALE: 3/4"=1'-0"

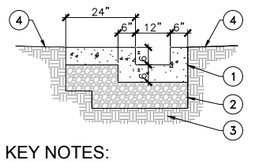


KEY NOTES:

1. TUBULAR STEEL FENCE
2. AC PAVING PATCH
3. SIDEWALK PER PLAN
4. FENCE FOUNDATION PER FENCE MANUFACTURER'S RECOMMENDATIONS

7 TUBULAR STEEL FENCE

NOT TO SCALE

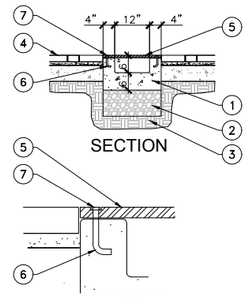


KEY NOTES:

1. CONCRETE PER DETAILS 4 AND 5 ON SHEET LD-3.
2. COMPACTED AGGREGATE BASE. REFER TO GEOTECHNICAL REPORT FOR SPECIFICATIONS.
3. COMPACTED SUBGRADE. REFER TO GEOTECHNICAL REPORT FOR SPECIFICATIONS.
4. PLANTER AREA PER PLAN

8 OPEN CHANNEL GUTTER

SCALE: 1/2"=1'-0"



KEY NOTES:

1. CONCRETE PER DETAILS 4 AND 5 ON SHEET LD-3.
2. COMPACTED AGGREGATE BASE. REFER TO GEOTECHNICAL REPORT FOR SPECIFICATIONS.
3. COMPACTED SUBGRADE. REFER TO GEOTECHNICAL REPORT FOR SPECIFICATIONS.
4. ADJACENT PAVERS.
5. 1" THICK ADA COMPLIANT NON-SLIP STEEL GRATE.
6. IMBEDDED J BOLT TIE DOWN.
7. TREADED J BOLT AND NUT FLUSH TO GRATE SURFACE.

9 GRATED CHANNEL GUTTER

SCALE: 1/2"=1'-0"

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3702
Registered
01/28/13
Renewal Date
Date
STATE OF CALIFORNIA

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REV	DESCRIPTION	BY	APPROVED	DATE

DATE: 02/22/2012
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CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE STE 300
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IMPROVEMENT PLANS FOR
MINER AVENUE
CONSTRUCTION DETAILS
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
LD-04 OF 4
SHEET 14 OF 25

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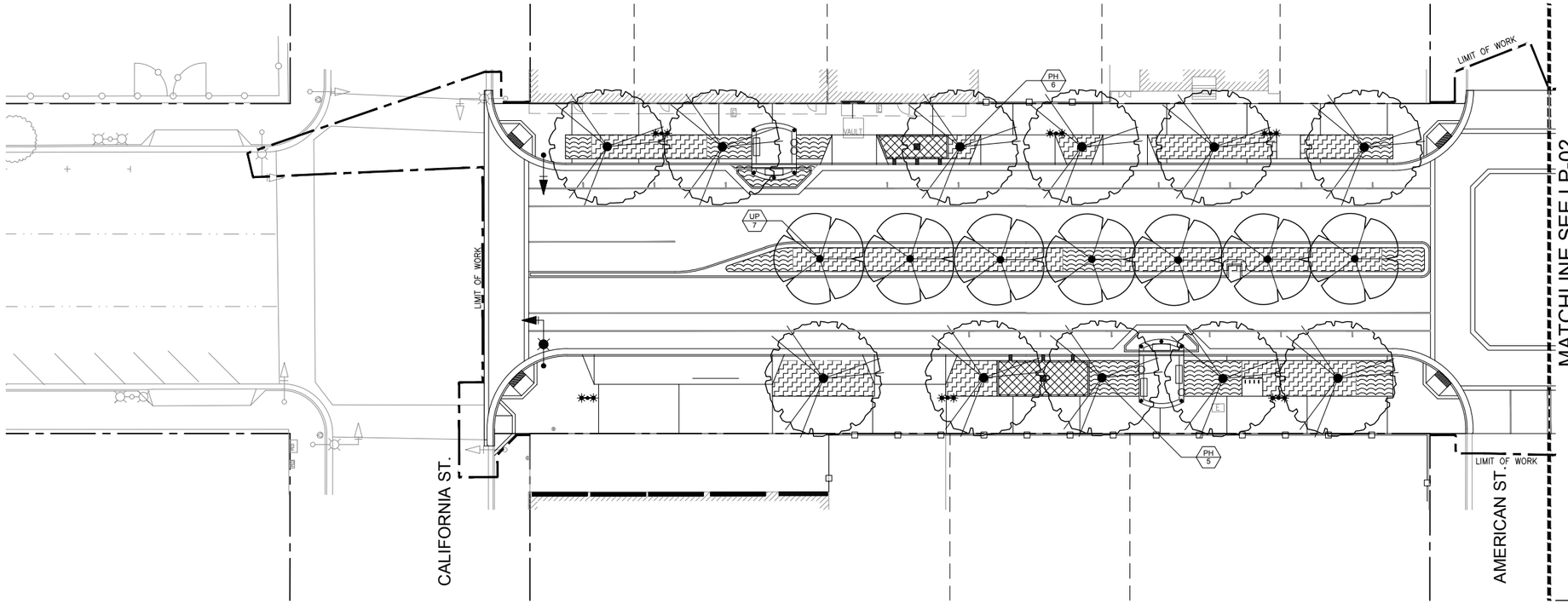

PLANTING NOTES

1. PLANT MATERIAL QUANTITIES SHOWN ON DRAWINGS ARE INFORMATIONAL ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL PLANT MATERIAL REQUIRED AS INDICATED IN THE DRAWINGS.

   RJ / 3 — PLANT KEY / QUANTITY

2. TOP DRESS ALL SHRUB AND GROUND COVER AREAS WITH 3" OF BARK MULCH . MULCH SHALL BE WALK ON FIR BARK MULCH AS MANUFACTURED BY REDI-GRO CORPORATION, SACRAMENTO, CALIFORNIA 906.381.6063 OR APPROVED EQUAL. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION FOR APPROVAL.
3. ALL PLANT MATERIALS SHALL COMPLY WITH FORM AND CHARACTERISTIC REQUIREMENTS AS SPECIFIED. ALL PLANT MATERIAL WILL COMPLY WITH ANSI Z601 "STANDARD FOR NURSERY STOCK" - LATEST EDITION.
4. IMMEDIATELY AFTER AWARD OF CONTRACT, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IF SPECIFIED PLANT MATERIAL IS NOT AVAILABLE FROM COMMERCIAL NURSERIES. IN CASE A PLANT IS NOT AVAILABLE, THE LANDSCAPE ARCHITECT WILL PROVIDE ALTERNATE PLANT MATERIAL SELECTIONS UPON REQUEST BY CONTRACTOR.
5. EXCAVATED PLANT PITS SHALL HAVE POSITIVE DRAINAGE. PLANT PITS WHEN FULLY FLOODED WITH WATER SHALL DRAIN WITHIN 2 HOURS OF FILLING. THE CONTRACTOR SHALL ENSURE ALL PLANT PITS HAVE POSITIVE DRAINAGE. AUGER 10' DEEP HOLE IN TREE PIT PER COUNTY STANDARD TREE PLANTING DETAIL IF PIT DOES NOT DRAIN.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR / REPLACEMENT OF DAMAGED UTILITIES, TO THE SATISFACTION OF THE OWNER OR GOVERNING AGENCY AND AT NO EXTRA COST TO THE OWNER
7. THE CONTRACTOR IS RESPONSIBLE FOR SOIL EROSION CONTROL MEASURES THAT MAY BE REQUIRED THROUGH THE DURATION OF THE CONTRACT PERIOD.
8. TREE LOCATIONS MAY REQUIRE ADJUSTING IN FIELD TO ACCOMMODATE LIGHT POLES, SPRINKLERS AND UTILITY STRUCTURES.
9. CONTRACTOR IS TO REVIEW THE SOIL ANALYSIS REPORT FOR THIS PROJECT FOR BOTH FERTILITY AND SAND/SILT/CLAY CONTENT. ALL PLANTING INSTALLATION INSTRUCTIONS THAT REQUIRE FERTILIZATION AND SOIL AMENDMENTS SHALL FOLLOW THE SOIL ANALYSIS RECOMMENDATIONS IN THE REPORT.
10. BACK FILL FOR TREES, SHRUBS AND ONE GALLON GROUND COVERS: REFER TO SOILS REPORT RECOMMENDATION.
11. SLOW-RELEASE, 7 GRAM GRO-POWER FERTILIZER TABLETS (20-10-5) SHALL BE PLACED MID-ROOT BALL DEPTH ALONG SIDE PLANT ROOT BALL AT THE FOLLOWING RATES:
    - 1 GALLON CONTAINER - 2 TABLETS
    - 5 GALLON CONTAINER - 6 TABLETS
    - 15 GALLON CONTAINER - 12 TABLETS
    - 24" BOX CONTAINER ---- 14 TABLETS
12. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED AT THE COMPLETION OF INSTALLATION FOR A GENERAL LANDSCAPE REVIEW. THE LANDSCAPE ARCHITECT SHALL REVIEW THE INSTALLATION FOR CONFORMANCE TO PLANS AND SPECIFICATIONS.
13. ALL PLANT MATERIALS SHALL MEET SIZE SPECIFICATIONS AS SHOWN ON THE PLANT LIST, AND SHALL BE HEALTHY, FULL, AND SHALL BE OF FIRST RATE QUALITY FOR THE SPECIES.
14. ALL PLANT MATERIALS SHALL BE INSTALLED AS SHOWN ON THE DETAILS OF THESE PLANS.
15. THE CONTRACTOR SHALL MAINTAIN ALL LANDSCAPED AREAS FOR MINIMUM PERIOD OF 180 CALENDAR DAYS FOLLOWING COMPLETION OF ALL WORK.
16. ALL ROOT BALLS SHALL BE SCORED OR MANUALLY LOOSENED PRIOR TO PLANTING.

PLANT SCHEDULE

TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
	LF	LAGERSTROEMIA FAURIEI `MUSKOGEE`	CRAPE MYRTLE	24"box	8
	PH	PLATANUS X HISPANICA `YARWOOD`	YARWOOD LONDON PLANE TREE	24"box	11
	QS	QUERCUS SHUMARDII	SHUMARD RED OAK	24"box	13
	UP	ULMUS PARVIFOLIA	CHINESE ELM	24"box	7
	ZV	ZELKOVA SERRATA `VILLAGE GREEN`	SAWLEAF ZELKOVA	24"box	41

ACCENT SHUBS		6,012 SF
	BERBERIS THUNBERGII `CRIMSON PYGMY` / CRIMSON PYGMY BARBERRY	
	CALLISTEMON CITRINUS `LITTLE JOHN` / DWARF BOTTLEBRUSH PATIO TREE	
	CUPHEA HYSSOPIFOLIA / MEXICAN HEATHER	
	KNIPHOFIA UVARIA `ORANGE` / ORANGE HOT POKER	
	NANDINA DOMESTICA `HARBOUR DWARF` / DWARF HEAVENLY BAMBOO	
	NASSELLA TENUISSIMA / MEXICAN FEATHER GRASS	
	PITTOSPORUM TOBIRA `WHEELERS DWARF` / WHEELER`S DWARF MOCK ORANGE	
STORMWATER PLANTS		2,215 SF
	CAREX DIVULSA / BERKELEY SEDGE	
	CAREX TESTACEA / ORANGE SEDGE	
	JUNCUS PATENS / CALIFORNIA GRAY RUSH	
GROUNDCOVER PLANTS		12,035 SF
	ARCTOSTAPHYLOS X `PACIFIC MIST` / PACIFIC MIST MANZANITA	
	COTONEASTER X `CORAL BEAUTY` / COTONEASTER	
	HYPERICUM CALYCINUM / ST. JOHNS WORT	

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3702
Signature
Renewal Date
Date
STATE OF CALIFORNIA

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

REV	DESCRIPTION	BY	DATE
			APPROVED

DATE: 02/22/2012
SCALE: H: 1"=20' V: N/A
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
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IMPROVEMENT PLANS FOR
MINER AVENUE
PLANTING PLAN
CALIFORNIA TO AMERICAN
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
LP-01 OF **5**
SHEET **16** OF **25**

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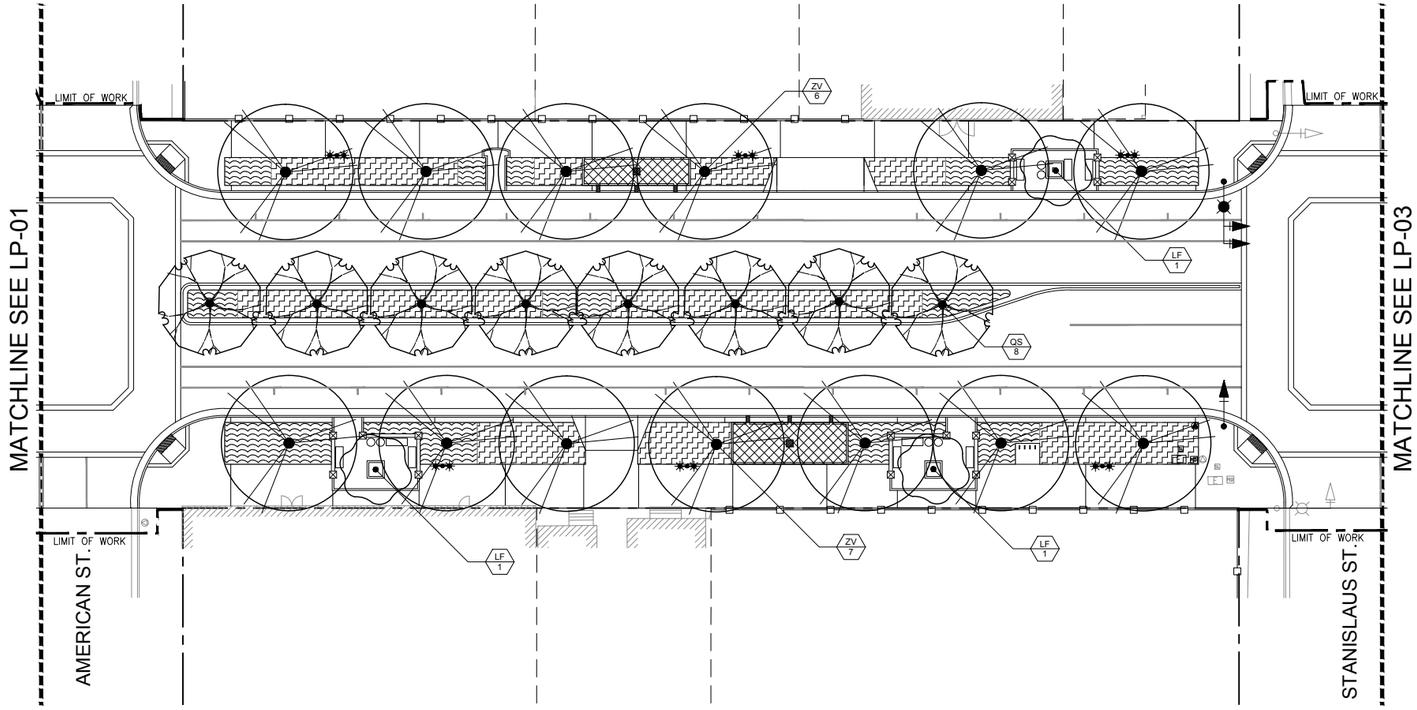

NORTH

20 0 10 20 40

(SCALE IN FEET)
1 inch = 20 ft.

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PITTOSPORUM TOBIRA `WHEELERS DWARF` / WHEELER`S DWARF MOCK ORANGE

STORMWATER PLANTS — 2,215 SF
CAREX DIVULSA / BERKELEY SEDGE
CAREX TESTACEA / ORANGE SEDGE
JUNCUS PATENS / CALIFORNIA GRAY RUSH

GROUNDCOVER PLANTS — 12,035 SF
ARCTOSTAPHYLOS X `PACIFIC MIST` / PACIFIC MIST MANZANITA
COTONEASTER X `CORAL BEAUTY` / COTONEASTER
HYPERICUM CALYCINUM / ST. JOHNS WORT

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3702
Signature
02/29/12
Renewal Date
Date
STATE OF CALIFORNIA

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CHECKED BY: JAT

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SACRAMENTO, CALIFORNIA
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IMPROVEMENT PLANS FOR
MINER AVENUE
PLANTING PLAN
AMERICAN TO STANISLAUS
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
LP-02 OF 5
SHEET 16 OF 25

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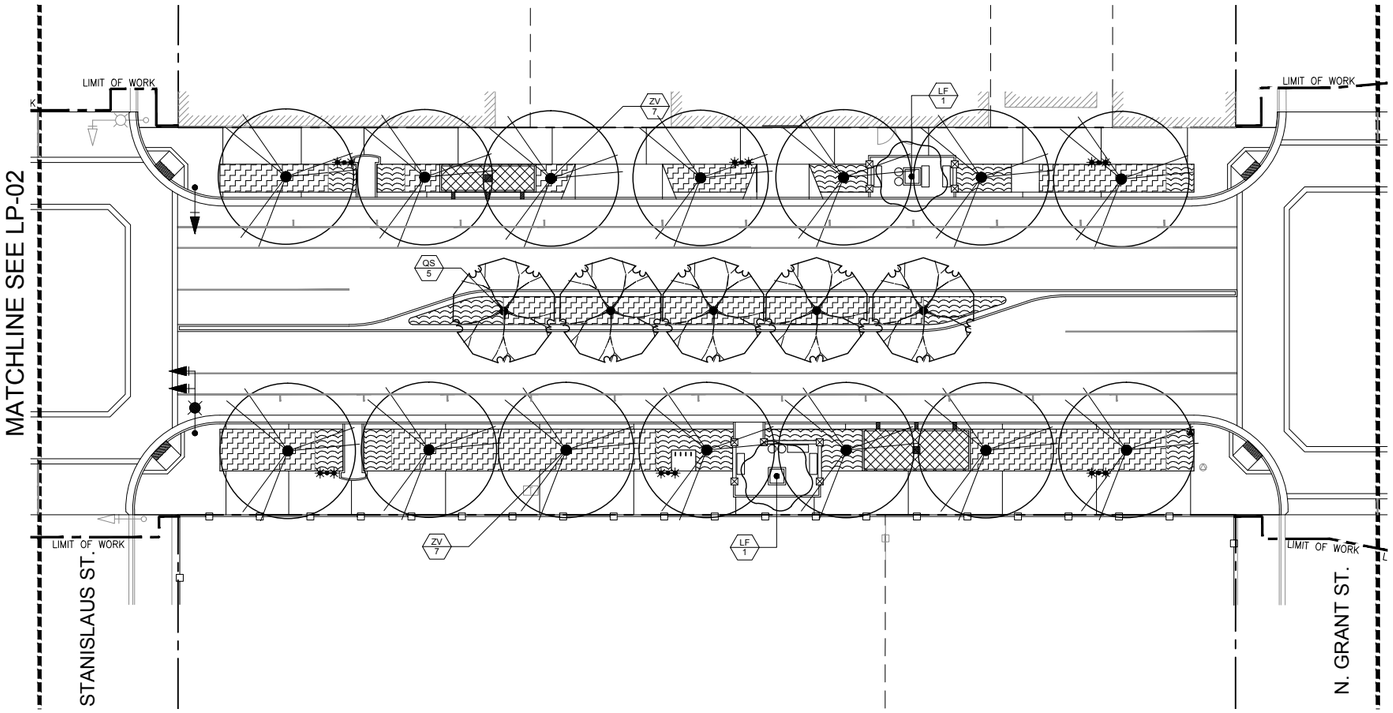

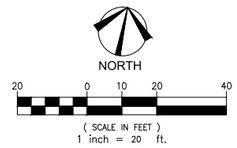

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COTONEASTER X 'CORAL BEAUTY' / COTONEASTER
HYPERICUM CALYCINUM / ST. JOHNS WORT

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3702
Signature 02/28/13 Renewal Date
Date
STATE OF CALIFORNIA

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IMPROVEMENT PLANS FOR
MINER AVENUE
PLANTING PLAN
STANISLAUS TO GRANT
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
LP-03 OF 5
SHEET 17 OF 25

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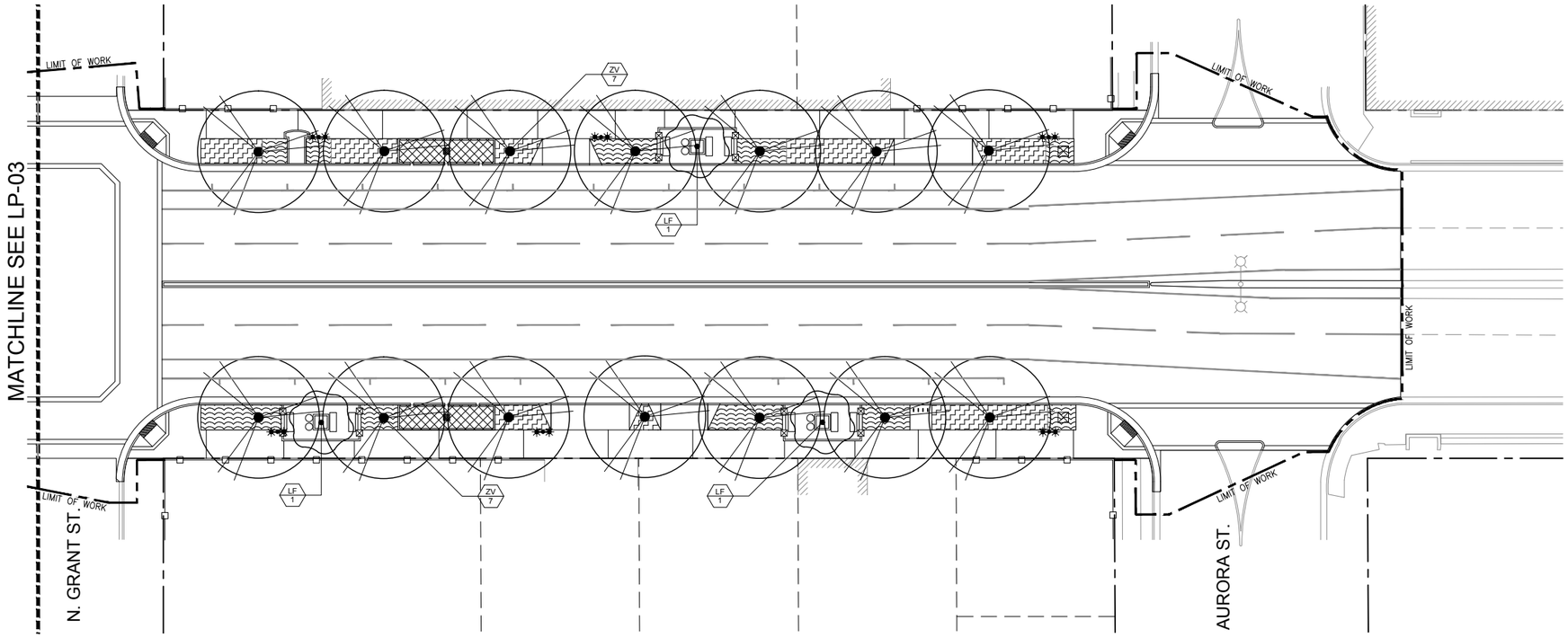

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STORMWATER PLANTS — 2,215 SF
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COTONEASTER X `CORAL BEAUTY` / COTONEASTER
HYPERICUM CALYCINUM / ST. JOHNS WORT

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3702
Signature
Date
STATE OF CALIFORNIA

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IMPROVEMENT PLANS FOR
MINER AVENUE PLANTING PLAN GRANT TO AURORA
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
LP-04 OF 5
SHEET 18 OF 25

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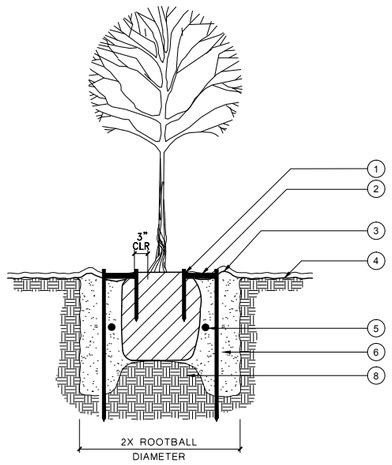
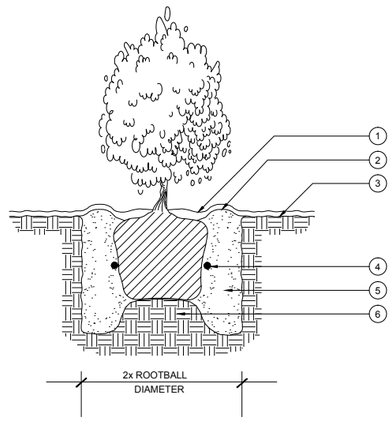


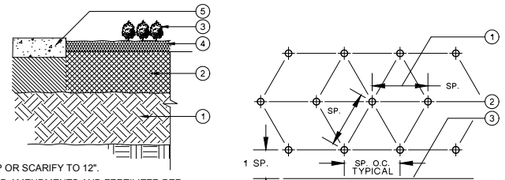
1. TREE STAPLES. REFER TO SPECIFICATIONS.
2. MULCH: 3" LAYER.
3. 3" HIGH EARTH WATERING BERM IN PLANTER AREA ONLY.
4. FINISH GRADE. KEEP ROOT CROWN 2" TO 3" ABOVE FINISH GRADE.
5. PLANT TABS, SEE SPECIFICATIONS.
6. PREPARED BACKFILL. SEE SPECIFICATIONS.
7. PLACE ROOTBALL ON SMALL MOUND OF TAMPED/ FIRM TOPSOIL.

1 TREE PLANTING DETAIL
NOT TO SCALE



1. 3" LAYER OF APPROVED MULCH. (NO MULCH IN STORM WATER PLANTER)
2. 2" HIGH WATERING BERM.
3. FINISH GRADE: PLANT ROOT CROWN 1" ABOVE FINISH GRADE.
4. FERTILIZER TABLETS - SEE SPECIFICATIONS.
5. PREPARED BACKFILL. SEE SPECIFICATIONS.
6. PLACE ROOTBALL ON SMALL MOUND OF TAMPED/ FIRM TOPSOIL.

2 SHRUB PLANTING DETAIL
NOT TO SCALE



1. RIP OR SCARIFY TO 12".
2. ADD AMENDMENTS AND FERTILIZER PER SPECIFICATIONS AND ROTOTILL.
3. GROUNDCOVER: TRIANGULAR SPACING (SEE PLAN FOR SPACING).
4. ADD 3" OF APPROVED MULCH. (NO MULCH IN STORM WATER PLANTER)
5. HARDSCAPE. TOP OF MULCH 1" BELOW FINISHED SURFACE OF HARDSCAPE.

SECTION

1. GROUNDCOVER SPACING: SEE PLANTING LEGEND
2. GROUNDCOVER CENTERS.
3. WALL, WALK OR EDGE OF GROUNDCOVER PLANTING.

PLAN

3 GROUNDCOVER PLANTING
NOT TO SCALE

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

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JACOBS
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IMPROVEMENT PLANS FOR
MINER AVENUE
PLANTING DETAILS
CITY OF STOCKTON CALIFORNIA

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3702
Signature
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: F7W76901
LP-05 OF **5**
SHEET **19** OF **25**

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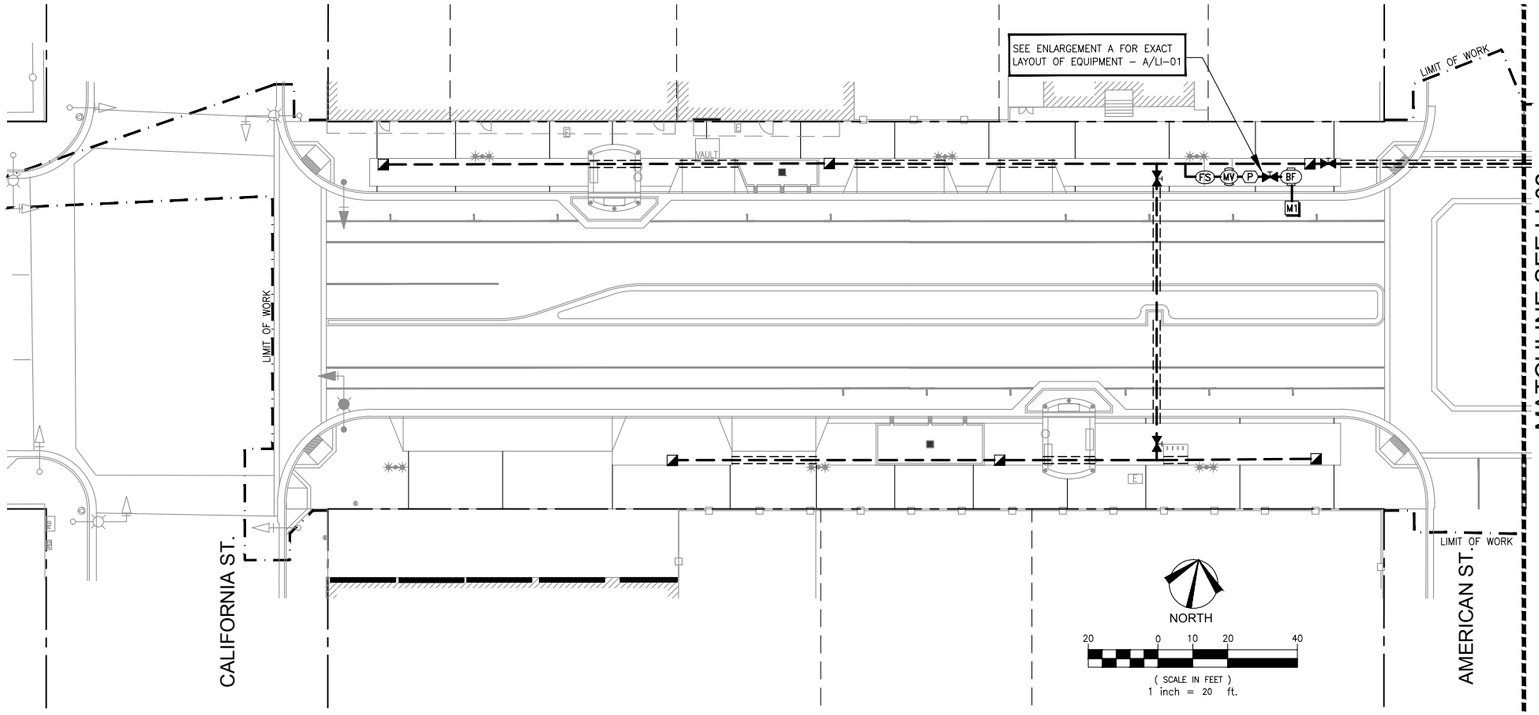


IRRIGATION NOTES

1. THE SYSTEMS ON THIS PLAN ARE DESIGNED FOR STATIC PRESSURE OF 45 PSI AT THE IRRIGATION WATER METERS PLUS 50 PSI BOOST FROM PUMP AND A MAXIMUM DEMAND OF 30 GPM. THE CONTRACTOR SHALL VERIFY THE EXISTING WATER PRESSURE ON SITE AT THE METER PRIOR TO CONSTRUCTION. REPORT TO THE LANDSCAPE ARCHITECT, ANY DIFFERENCES GREATER THAN 10% BETWEEN THE WATER PRESSURE SHOWN ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE POINT OF CONNECTION. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
2. ALL IRRIGATION EQUIPMENT SHALL BE NEW AND INSTALLED IN SUCH A MANNER THAT THE NEW IRRIGATION SYSTEM WILL BE A COMPLETE AND EFFICIENT SYSTEM.
3. INSTALL ALL MATERIALS AND EQUIPMENT AS SHOWN ON THE PLANS AND CONSTRUCTION DETAILS.
4. SLEEVE ALL PRESSURE MAINLINE, LATERAL LINES AND CONTROL WIRES UNDER ALL PAVING WITH SCHEDULE 40 PVC PIPE (SIZE PER IRRIGATION SCHEDULE). IN ADDITION TO THE SLEEVES SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF SLEEVES OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.
5. FLUSH AND ADJUST ALL LINES, SPRAY HEADS, FLOOD BUBBLERS AND VALVES FOR OPTIMUM PERFORMANCE. ADJUST ALL NOZZLES TO ELIMINATE OVERSPRAY ON ADJACENT WALKS, STREETS, ETC.
6. CONTACT LANDSCAPE ARCHITECT TO DISCUSS AND RECEIVE APPROVAL FOR ALL FIELD ADJUSTMENTS THAT WILL IMPACT THE DESIGN AND EFFICIENCY OF THE SYSTEMS. IF THE CONTRACTOR HAS NOT RECEIVED WRITTEN AUTHORIZATION TO CONDUCT FIELD ADJUSTMENTS, THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REVISIONS/ADJUSTMENTS.
7. SEE LAYOUT PLAN FOR EXACT LOCATIONS OF BACKFLOW PREVENTER AND CONTROLLER.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM/HER SELF WITH THE SITE. THE CONTRACTOR SHALL USE EXTREME CARE WHEN EXCAVATING OR WORKING NEAR EXISTING UTILITIES AND SHALL BE RESPONSIBLE IF ANY DAMAGE IS INCURRED. PRIOR TO ANY CONSTRUCTION THE CONTRACTOR SHALL CONTACT ALL APPLICABLE AGENCIES AND U.S.A. TO LOCATE ALL EXISTING UTILITIES.
9. IRRIGATION CONTRACTOR SHALL COORDINATE AND INSTALL ALL IRRIGATION SLEEVES PRIOR TO CONCRETE FLATWORK AND ASPHALT INSTALLATION.
10. IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES, BY LICENSED CONTRACTORS AND EXPERIENCED WORKMEN. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATING TO HIS WORK.
11. TRENCHING IS TO BE OF SUFFICIENT DEPTH TO PROVIDE 24" OF COVER OVER IRRIGATION MAIN LINES AND CONTROL WIRE, AND 12" OF COVER OVER ALL LATERAL LINES. ALL LINES UNDER PAVING SHALL BE BURIED WITH 24" OF COVER. CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT WITH ANY DISCREPANCIES.
12. INSTALL SPRINKLER HEADS 2" CLEAR OF CURBS, PAVING, HEADERS, OR UTILITY BOXES.
13. FLUSH MAIN LINES PRIOR TO THE INSTALLATION OF REMOTE CONTROL VALVES, OR QUICK COUPLER VALVES. FLUSH LATERAL LINES PRIOR TO THE INSTALLATION OF IRRIGATION HEADS INCLUDING EMITTER DEVICES.
14. PRESSURE TEST MAIN LINES UNDER OPERATING PRESSURE PRIOR TO BACKFILLING.
15. IRRIGATION CONTROL WIRE SHALL BE NO. 14-1 AWG UF (UL) APPROVED FOR DIRECT BURIAL. WIRE COLORS FOR THIS PHASE OF THE WORK SHALL BE AS FOLLOWS: COMMON WIRE - WHITE, PILOT WIRES - RED, ALL SPARE WIRES - YELLOW.
16. THE IRRIGATION SYSTEM IS DRAWN DIAGRAMMATICALLY. ALL IRRIGATION EQUIPMENT SHOWN WITHIN PAVED AREAS ARE FOR CLARITY ONLY. INSTALL ALL EQUIPMENT IN PLANTING AREAS, TYP.
17. ALL WIRE SPLICES ARE TO BE MADE WITHIN A VALVE BOX. SPLICES ARE TO BE MADE WITH A COPPER CRIMP TYPE CONNECTOR AND INSTALLED WITHIN A '3-M' NO. DBY SEALING PACK.
18. REMOTE CONTROL VALVE BOXES ARE TO BE INSTALLED FLUSH WITH FINISH GRADE IN LAWN AREAS. ALIGN VALVE BOXES WITH ADJACENT PAVEMENT EDGES, ARCHITECTURAL FEATURES, OR ADJACENT VALVE BOXES, AS APPLICABLE FOR A NEAT APPEARANCE. VALVE BOXES ARE TO CONFORM WITH FINISH GRADES.
19. ALL REMOTE CONTROL VALVES SHALL HAVE A PERMANENT VALVE TAG (AS MANUFACTURED BY 'T. CHRISTY' OR APPROVED EQUAL) ATTACHED TO THE VALVE INDICATING THE CONTROLLER STATION NUMBER.
20. CONTRACTOR SHALL WARRANT THAT THE IRRIGATION SYSTEM WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 180 DAYS AFTER FINAL ACCEPTANCE OF THE WORK, AND SHALL REPAIR OR REPLACE ANY DEFECTIVE MATERIALS OR WORK AT NO ADDITIONAL COST TO THE OWNER. THE ABOVE MENTIONED WARRANTY SHALL BE IN WRITING.

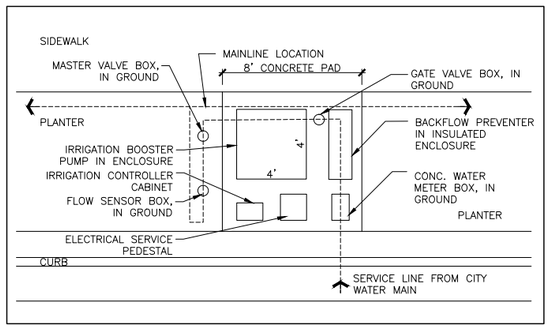
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
M O	HUNTER MP1000 W/ PROS-12-CV SHRUB SPRAY 12" POP-UP WITH CHECK VALVE, MP ROTATOR NOZZLE. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC, ON PROS-12 12" POP-UP BODY.	40
T	HUNTER MP CORNER W/ PROS-12-CV SHRUB SPRAY 12" POP-UP WITH FACTORY INSTALLED CHECK VALVE, MP ROTATOR NOZZLE. T=TURQUOISE ADJ ARC 45-105, ON PROS 12" POP-UP BODY.	40
LST RST SST	HUNTER MP STRIP W/ PROS-12-CV SHRUB SPRAY 12" POP-UP WITH FACTORY INSTALLED CHECK VALVE, MP ROTATOR NOZZLE. LST=IVORY LEFT STRIP, SST=BROWN SIDE STRIP, RST=COPPER RIGHT STRIP, ON PROS-12 12" POP-UP BODY.	40
	HUNTER RZWS-SLEEVE-18-50 18" LONG RZWS WITH FILTER FABRIC SLEEVE, 0.50 GPM BUBBLER, 1/2" SWING JOINT FOR CONNECTION TO 1/2" PIPE. 2 PER TREE LOCATED X' FROM CENTER OF TREE TRUNK.	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	AREA TO RECEIVE DRIP EMITTERS RAIN BIRD XERI-BUG XB-1032 SINGLE OUTLET PRESSURE COMPENSATING DRIP EMITTER, 10-32 THREADED INLET, BLUE=0.5GPH, BLACK=1.0GPH, RED=2.0GPH. Emitter Notes: 1 gal plant to receive 2 10PC1032 emitters. 5 gal plant to receive 2 20PC1032 emitters.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD PEB-PRS-D ELECTRIC REMOTE CONTROL VALVE WITH PRESSURE REGULATOR.
	RAIN BIRD 44LRC 1" QUICK COUPLER VALVE, TWO PIECE BODY, LOCKING COVER
	NIBCO T-113 CLASS 125 BRONZE GATE SHUT OFF VALVE WITH WHEEL HANDLE, SAME SIZE AS MAINLINE PIPE DIAMETER AT VALVE LOCATION. SIZE RANGE - 1/4" - 3"
MF	MASTER VALVE - SUPERIOR 3100 NORMALLY OPEN DESIGN, SOLID BRASS CONSTRUCTION, ELECTRIC.
BF	WILKINS 975XL REDUCED PRESSURE BACKFLOW DEVICE
FS	FLOW SENSOR RAINBIRD FS100B
P	BOOSTER PUMP 50 PSI BOOST AT 50 GPM. SEE SPECIFICATIONS.
M1	WATER METER 1-1/2"
M2	WATER METER 1-1/2"
	IRRIGATION LATERAL LINE: PVC CLASS 200
	IRRIGATION MAINLINE: PVC SCHEDULE 40
	PIPE SLEEVE: PVC SCHEDULE 40. SLEEVE TO BE TWICE SIZE OF PIPE IN SLEEVE

Valve Callout
#• Valve Number
#• Valve Flow
#" Valve Size



A IRRIGATION POINT OF CONNECTION ENLARGEMENT
SCALE: 1/4" = 1'-0"

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3702
Signature Date
Renewal Date
Date
STATE OF CALIFORNIA

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

REV	DESCRIPTION	BY	APPROVED	DATE

DATE: 02/22/2012
SCALE: H: 1"=20' V: NA
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE STE 300
SACRAMENTO, CA 95834
PHONE (916) 924-3323 FAX (916) 929-7772

IMPROVEMENT PLANS FOR
MINER AVENUE
IRRIGATION PLAN
CALIFORNIA TO AMERICAN
CITY OF STOCKTON CALIFORNIA

PROJECT NO: F7W76901
LI-01 OF **6**
SHEET **20** OF **25**

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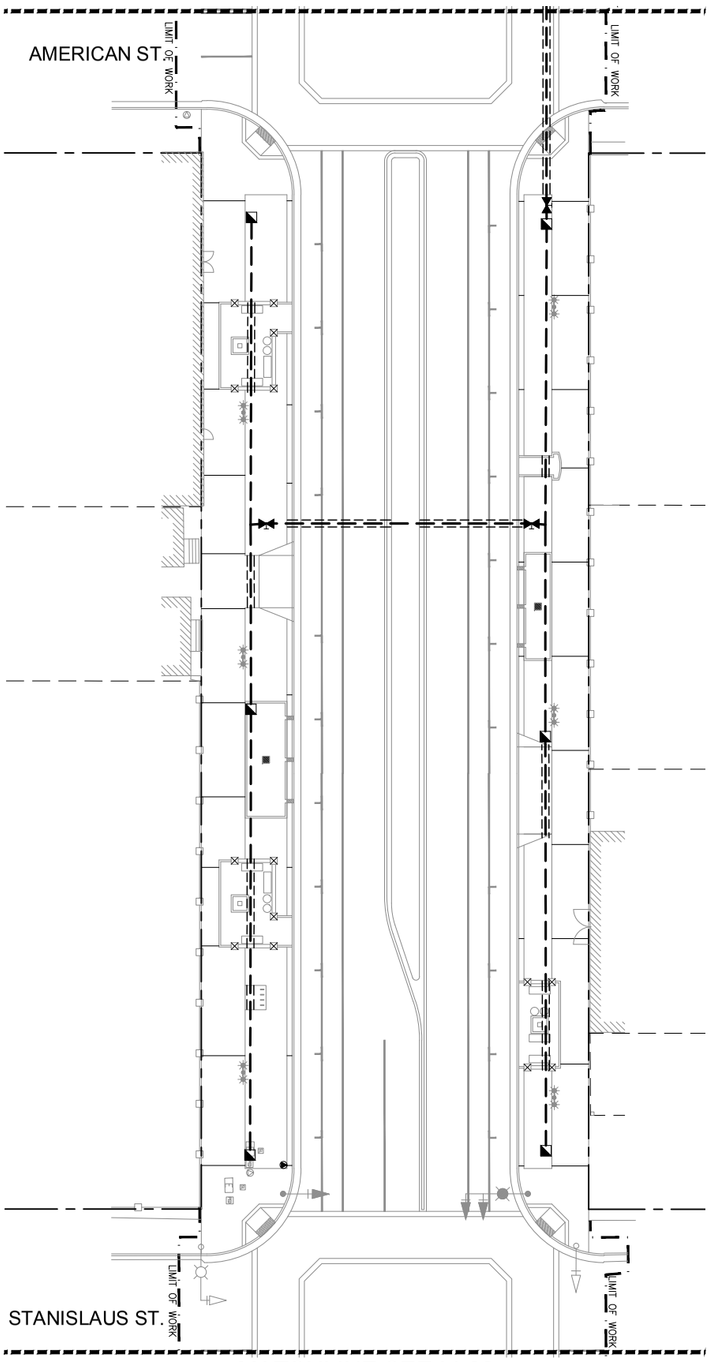
MATCHLINE SEE LI-01



MATCHLINE SEE LI-03

20 0 10 20 40
(SCALE IN FEET)
1 inch = 20 ft.

NORTH

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

PROJECT NO: F7W76901	IMPROVEMENT PLANS FOR	JACOBS	DATE: 02/22/2012
LI-02 OF 6	**MINER AVENUE IRRIGATION PLAN AMERICAN TO STANISLAUS**	180 PROMENADE CIRCLE STE 300 SACRAMENTO, CA 95834 PHONE (916) 929-3323 FAX (916) 929-1772	SCALE: H: 20 V: NA
SHEET 21 OF 25	CITY OF STOCKTON CALIFORNIA		DRAWN BY: TT
			DESIGNED BY: AMK
			CHECKED BY: JAT

REV	DESCRIPTION	BY	DATE APPROVED

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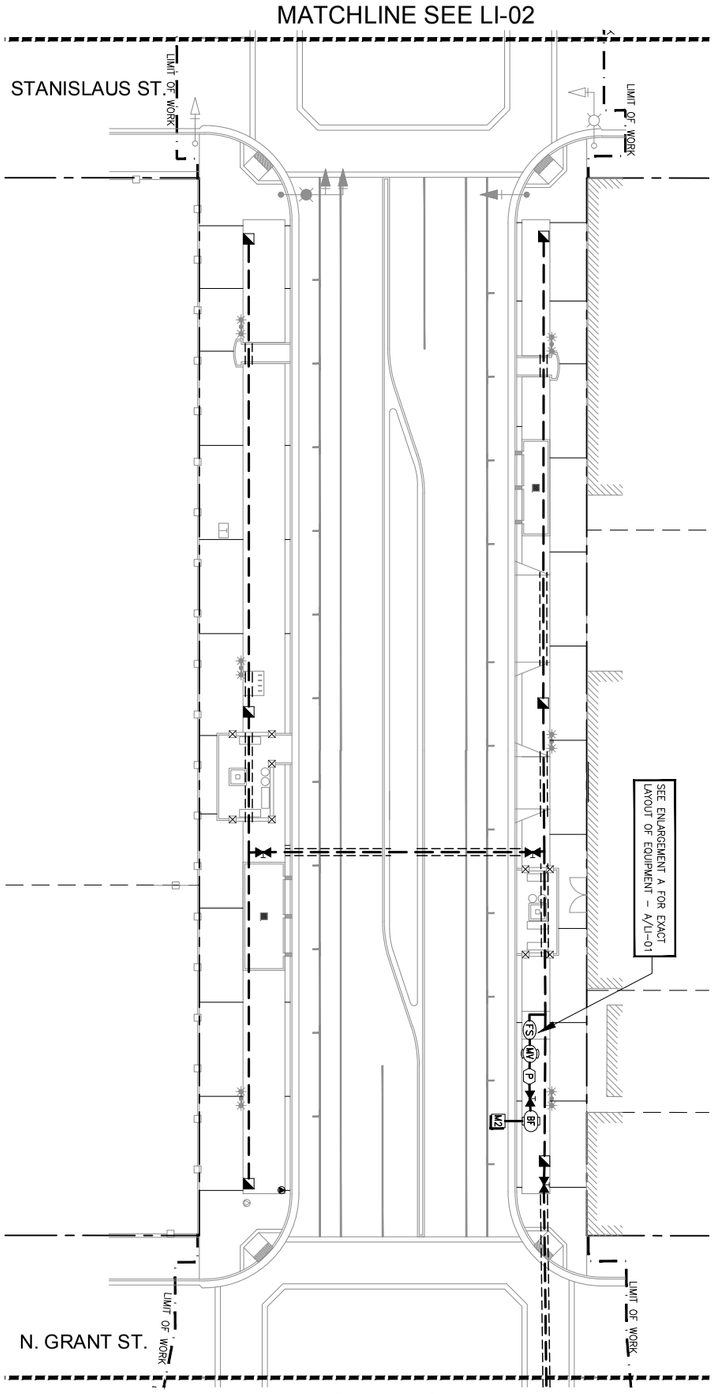
MATCHLINE SEE LI-02



MATCHLINE SEE LI-04

20 0 10 20 40
(SCALE IN FEET)
1 inch = 20 ft.

NORTH

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

PROJECT NO: F7W76901	IMPROVEMENT PLANS FOR	JACOBS 180 PROMENADE CIRCLE STE 300 SACRAMENTO, CA 95834 PHONE (916) 929-3323 FAX (916) 929-1772	DATE: 02/22/2012	REV / DESCRIPTION / BY / DATE APPROVED
LI-03 OF 6	MINER AVENUE IRRIGATION PLAN STANISLAUS TO GRANT		SCALE: H: 20 V: NA	
SHEET 22 OF 25	CITY OF STOCKTON CALIFORNIA		DRAWN BY: TT	
			DESIGNED BY: AMK	
			CHECKED BY: JAT	

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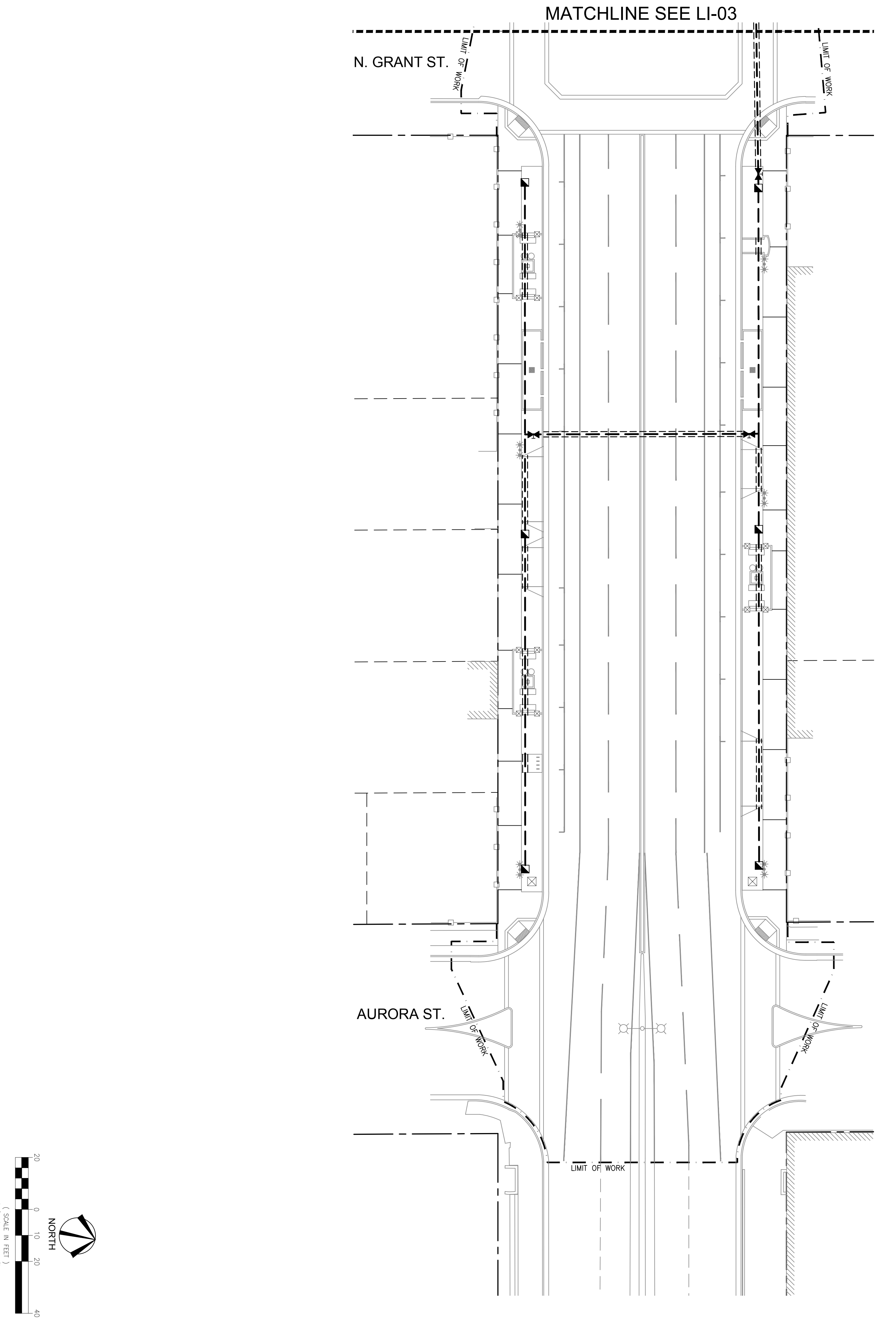

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

PROJECT NO: F7W76901	IMPROVEMENT PLANS FOR	JACOBS	DATE: 02/22/2012	REV / DESCRIPTION / BY / DATE / APPROVED
LI-04 OF 6	MINER AVENUE IRRIGATION PLAN GRANT TO AURORA	180 PROMENADE CIRCLE STE 300 SACRAMENTO, CA 95834 PHONE (916) 929-3323 FAX (916) 929-1772	SCALE: H: 20 V: NA	
SHEET 23 OF 25	CITY OF STOCKTON CALIFORNIA		DRAWN BY: TT DESIGNED BY: AMK CHECKED BY: JAT	

LICENSED LANDSCAPE ARCHITECT JEFFREY A. TOWNSEND No. 3702 STATE OF CALIFORNIA Signature Renewal Date Date

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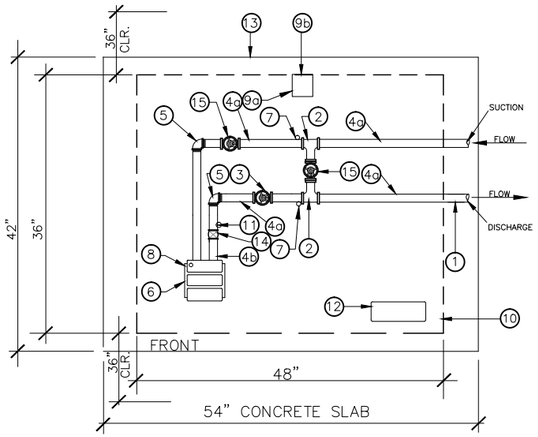


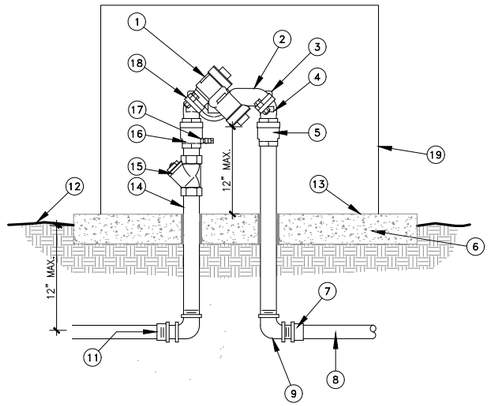
CUSTOMFLOW REFERENCE: 55 JAC /10192010-1 / 16.7 VFD

1 2" COMPANION FLANGE 1
2 2" GALVANIZED TEE (GROOVED)
3 2" NIBCO GD4765-3 BUTTERFLY VALVE-GROOVED
4a 2" GALVANIZED SCHEDULE 40 GROOVED (LENGTH AS REQUIRED)
4b 2" GALVANIZED SCHEDULE 40 GROOVED (LENGTH AS REQUIRED)
5 1-1/2" GROOVED 90
6 PUMP: WITH BRONZE IMPELLER, RATED FOR 55 GPM AT 50 PSI INCREASE, WITH 5 HP, 3-PHASE, 3450 RPM, 230/460 ODP MOTOR.
7 PRESSURE GAUGE- LIQUID FILLED (1) 100 PSI.
8 TEMPERATURE SWITCH CUSTOM PND-125
9a 110 v COOLING FAN
9b HOODED COVER
10 STEEL ENCLOSURE- TWO PIECE STEEL SIZE 48"x 36"x 40"x38", PIVOT TOP, SLANTED ROOF, POWDER COATED GREEN COLOR. ALL STEEL BRACKETS AND HARDWARE.
11 EFECTOR TRANSDUCER PA 3224 0-145 PSI.
12 FUJI, RAPIDPAK, 16.7 AMP. VFD, 30 AMP CIRCUIT BREAKER, THREE-PHASE OUTPUT, WITH (2) PUMP START RELAY AND, TERMINALS, CONTROLS WITH RELAY-RESET FOR TEMPERATURE SWITCH.
13 LEVEL CONRETE PAD SIZE 42"X 54", 4" THICK, AND 1" ABOVE SURROUNDING GRADE. TOOL EDGES 1/2". NOTE: THE INLET/ OUTLET ARE LOCATED ON THE RIGHT SIDE FACING THE FRONT. ALLOW 24" CLEARANCE IN FRONT AND REAR FOR SERVICE ACCESS.
14 2" CHECK VALVE
15 2" NIBCO GD4765-3 BUTTERFLY VALVE-GROOVED

NOTE: THREE-PHASE 208-VOLT ELECTRICAL SERVICE WIITH 30-AMP BREAKER WITH GROUND AND CONTROL WIRES ARE REQUIRED. THE TWO CONDUITS AND WIRES ARE CONNECTED TO THE PANEL TERMINALS INSIDE THE ENCLOSURE. CUSTOM PUMP & POWER INC. TO PROVIDE SHOP ASSEMBLY, STARTUP, TRAINING AND OWNER'S MANUAL. PHONE:(916) 429-9729. 4 WATER REEF COURT, SACRAMENTO, CA., 95831

A BOOSTER PUMP STATION

NTS



KEY NOTES:

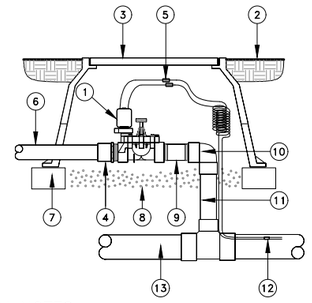
1. REDUCED PRESSURE BACKFLOW PREVENTER (SEE IRRIGATION LEGEND FOR MANUFACTURER AND MODEL NUMBER)
2. BRASS NIPPLE
3. BALL VALVE
4. BRASS 90° ELL
5. BRASS UNION
6. PVC SLEEVE, TYPICAL
7. SCH 40 PVC MALE ADAPTER
8. PVC MAINLINE
9. BRASS 90° ELL
10. NOT USED
11. SUPPLY LINE
12. FINISH GRADE
13. PAVEMENT
14. BRASS NIPPLE
15. BRASS WYE STRAINER WITH 60 MESH SCREEN
16. BRASS UNION
17. BALL VALVE
18. BRASS 90° ELL
19. LOCKABLE INSULATED ENCLOSURE,

NOTE:

1. EQUIPMENT TO BE INSTALLED A MIN. OF 24" FROM ANY STRUCTURE OR HARDSCAPE.
2. WHEN UNIT IS NEAR A STRUCTURE-MOUNT TEST COCK ON OPEN OR NON-OBSTRUCTED SIDE.
3. ALL ABOVE GROUND ASSEMBLY SHALL RECEIVE TWO (2) COATS OF RED PRIMER & ONE COAT OF EXT. BLACK ENAMEL.
4. REFER TO SPECIFICATIONS & PLAN SHEET FOR MORE INFORMATION.

B REDUCED PRESSURE BACKFLOW PREVENTER

NOT TO SCALE J-IR-MIS-10

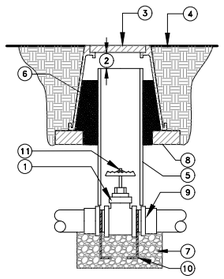


KEY NOTES:

1. IRRITROL ELECTRIC CONTROL VALVE
2. FINISH GRADE
3. VALVE BOX (HEIGHT ABOVE GRADE AS REQUIRED)
4. PVC MALE ADAPTER
5. WATERPROOF WIRE CONNECTORS
6. PVC LATERAL LINE- ANGLE TO PROPER DEPTH
7. COMMON RED BRICK (4 REQUIRED)
8. PEA GRAVEL- 12" DEEP
9. PVC SCHEDULE 80 NIPPLE (6" LONG)
10. PVC SCHEDULE 40 SxT ELL
11. PVC SCHEDULE 80 PIPE
12. COMMON AND CONTROL WIRES TO CONTROLLER LOCATION
13. IRRIGATION MAINLINE

C REMOTE CONTROL VALVE

NOT TO SCALE 328406.13-06



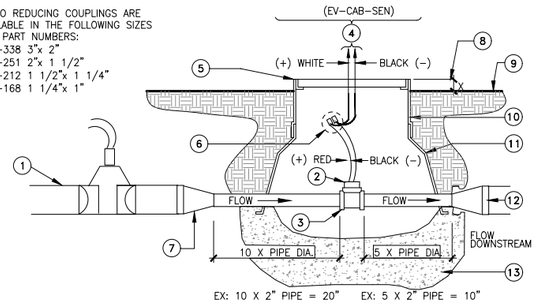
KEY NOTES:

1. GATE VALVES 3" AND LARGER SHALL BE EPOXY COATED WITH FLANGED ENDS WITH 2 INCH OPERATING NUT
2. ALLOW 3" BETWEEN VALVE BOX LID AND PVC PIPE
3. 10" DIAMETER PLASTIC ROUND VALVE BOX WITH BOLT LID DOWN.
4. TOP OF MULCH OR D.G.
5. 6" DIAMETER SCH. 40 PVC PIPE. USE 8" DIAMETER FOR 6" HAND WHEELS.
6. PEA GRAVEL
7. 6" LAYER OF CLEAN PEA GRAVEL
8. COMMON BRICK; 4" MINIMUM
9. SCH 80 PVC FLANGES TYP. (2) PLACES
10. CONCRETE STABILIZER WITH #4 REBAR REINFORCEMENT FOR VALVES 4" OR LARGER ONLY
11. SQUARE OPERATING NUT FOR VALVES 3" OR LARGER

D GATE VALVE

NOT TO SCALE J-IR-VAL-08

LASCO REDUCING COUPLINGS ARE AVAILABLE IN THE FOLLOWING SIZES AND PART NUMBERS:
429-338 3"x 2"
429-251 2"x 1 1/2"
429-212 1 1/2"x 1 1/4"
429-168 1 1/4"x 1"



KEY NOTES:

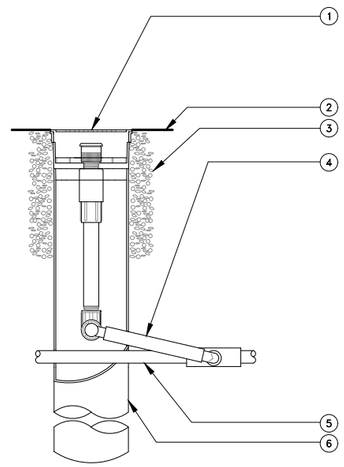
1. MASTER VALVE, DOWN STREAM FROM BACKFLOW
2. FLOW SENSOR INSERT
3. FLOW SENSOR BODY
4. TWO #20 FAIL SHEILD WITH DRAIN, BLACK JACKET, DIRECT BURIAL BLACK, WHITE. ALLOW 2' OF EXTRA CABLE.
5. 14"X19" PLASTIC VALVE BOX WITH EXTENSIONS IF NEEDED AND LOCKING COVER.
6. WATERPROOF CONNECTIONS * NOTE POLARITY ON SENSOR TO SENSOR CABLE HOOKUP
7. FITTING OR REDUCING COUPLING AT DISTANCE EQUAL TO 10X PIPE DIAMETER FROM FLOW SENSOR
8. 1" IN TURF AREAS 2" IN SHRUB AREAS
9. FINISH GRADE
10. EXTENSION (IF NEEDED)
11. VALVE BOX (14"X19") OR LARGER
12. FITTING OR REDUCING COUPLING AT DIST EQUAL TO 5X PIPE DIAMETER FROM FLOW SENSOR
13. 6" DEEP 3/4" PEA GRAVEL SUMP

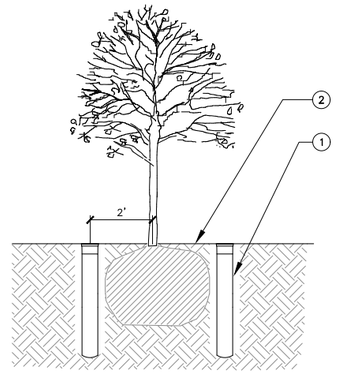
NOTE:

1. LOW SENSOR MUST BE INSTALLED WITH INSERT (TOP) POSITIONED VERTICALLY AND BODY (TEE) POSITIONED HORIZONTALLY.
2. FLOW SENSOR CABLE MUST BE RUN IN 1" PVC CONDUIT FROM FLOW SENSOR TO CONTROLLER ENCLOSURE

E FLOW SENSOR/MASTER VALVE

NOT TO SCALE 328409.63-02





KEY NOTES:

1. ROOT WATERING SYSTEM: PER IRRIGATION LEGEND, POSITION UNITS EVENLY SPACED AROUND ROOTBALL
2. TOP OF MULCH OR D.G.
3. OPTIONAL PEA GRAVEL FOR SANDY SOILS
4. SWING PIPE, 12-INCH SWING ASSEMBLY
5. LATERAL PIPE
6. CYLINDRICAL SCREEN

G TREE ROOT WATERING SYSTEM

NOT TO SCALE J-IR-HEA-02

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

REV.	DESCRIPTION	BY	APPROVED	DATE

DATE: 02/22/2012
SCALE: H: VARIES V: NA
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE STE 300
SACRAMENTO, CA 95834
PHONE (916) 929-3323 FAX (916) 929-1772

IMPROVEMENT PLANS FOR
MINER AVENUE
IRRIGATION DETAILS
CITY OF STOCKTON CALIFORNIA

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3702
Registered
01/28/13
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: F7W76901
LI-05 OF **6**
SHEET **24** OF **25**

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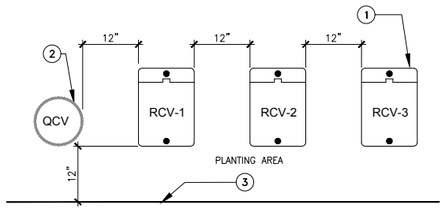


KEY NOTES:

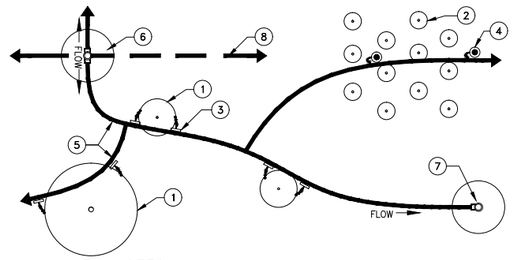
1. RECTANGULAR VALVE BOX, TYP.
2. ROUND VALVE BOX
3. EDGE OF LAWN, SIDEWALK, FENCE LINE, CURB, ETC.

NOTE:

1. LABEL (BRAND) EACH LID WITH TYPE OF EQUIPMENT – RCV–# (INCLUDE VALVE NUMBER), QCV, GV, FS (FLOW SENSOR), MV (MASTER VALVE).
2. CENTER BOXES OVER VALVES.
3. SET BOXES IN GROUND COVER/ SHRUBS AREAS WHERE POSSIBLE. KEEP 3' CLEAR AROUND VALVE BOXES.
4. SET BOXES PARALLEL TO EACH OTHER & PERPENDICULAR TO EDGES.
5. AVOID HEAVILY COMPACTING SOIL AROUND BOXES TO PREVENT DAMAGING VALVE BOXES.
6. IF VALVE IS LOWER THAN BOTTOM OF VALVE BOX, ADD EXTENSION SLEEVE TO BOX.

A VALVE BOX INSTALLATION

NOT TO SCALE J–IR–MIS–03



KEY NOTES:

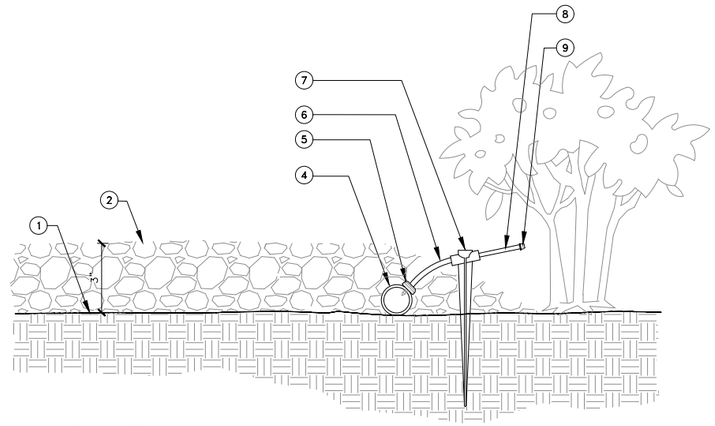
1. SHRUB ROOTBALL
2. PERENNIAL OR GRASS ROOTBALL
3. EMITTER
4. POP UP MICRO SPRAY WHERE INDICATED ON PLAN
5. 1/2" DRIP TUBING ON GRADE, BELOW MULCH, STAKE AT 8' MAX PLUS EVERY BEND, TEE AS NECESSARY TO REACH EVERY PLANT (THAT REQUIRES EMITTERS) OR MICRO SPRAY
6. PIPE TRANSITION IN 6" ROUND BOX
7. AIR/VACUUM RELIEF VALVE IN 6" ROUND PLASTIC VALVE BOX
8. PVC LATERAL UNDERGROUND

NOTE:

1. REFER TO EMITTER DETAIL FOR FURTHER INFORMATION.
2. SEE IRRIGATION PLAN FOR QUANTITY OF EMITTERS.
3. REFER TO AIR RELIEF VALVE DETAIL FOR FURTHER INFORMATION. LOCATE AIR RELIEF VALVE AT THE HIGH POINT OF EACH SYSTEM.

C SCHEMATIC DRIP IRRIGATION LAYOUT

NOT TO SCALE J–IR–DRI–03



KEY NOTES:

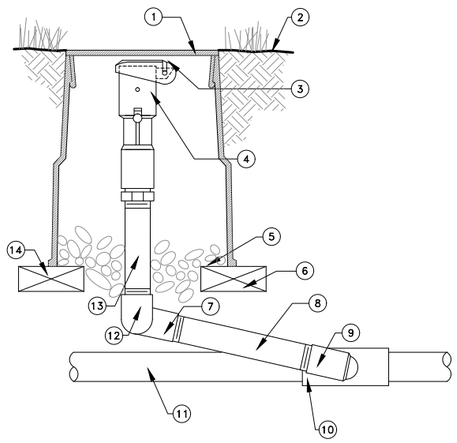
1. FINISH GRADE
2. TOP OF BARK MULCH
3. (NOT USED)
4. XBS BLACK STRIPE TUBING
5. DRIP EMITTER– SEE IRRIGATION LEGEND
6. 1/4" DISTRIBUTION TUBING
7. SECURE END OF TUBING WITH 1/4" TUBING STAKE
8. 2" SECTION OF 1/4" DISTRIBUTION TUBING
9. DIFFUSER BUG CAP

NOTE:

1. INSTALL EMITTERS EQUALLY SPACED AROUND EDGE OF ROOTBALL. DO NOT INSTALL EMITTERS AT BASE/CROWN OF PLANT.

E DRIP EMITTER ON 1/2" TUBE

NOT TO SCALE J–IR–DRI–02

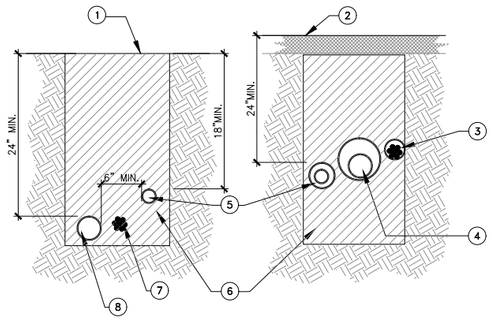


KEY NOTES:

1. VALVE BOX WITH LOCKING COVER 10 INCH ROUND
2. FINISHED GRADE
3. TOP OF QUICK–COUPLER AS CLOSE TO VALVE BOX LID AS POSSIBLE
4. QUICK–COUPLER VALVE: RAINBIRD MODEL 44LRC
5. 3 INCH MINIMUM DEPTH OF 3/4" WASHED GRAVEL
6. BRICK
7. PVC SCH 40 ELL
8. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
9. PVC SCH 40 STREET ELL
10. PVC SCH 40 TEE OR ELL
11. PVC MAINLINE PIPE
12. PVC SCH 40 STREET ELL
13. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
14. BRICK

E QUICK COUPLING VALVE

NOT TO SCALE 328406.43–05



TRENCH IN PLANTER TRENCH UNDER PAVEMENT

KEY NOTES:

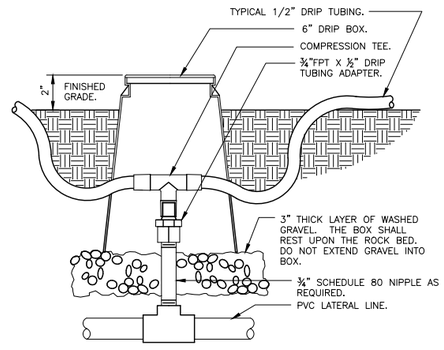
1. PLANTER FINISH GRADE
2. PAVEMENT FINISH SURFACE
3. WIRE IN PVC SLEEVE (TYP.)
4. MAIN LINE IN PVC SLEEVE (TYP.)
5. LATERAL PIPE
6. BACKFILL COMPACTED TO 90% PER GEOTECHNICAL REPORT
7. WIRE
8. MAIN LINE

NOTE:

1. TIE A LOOSE 20" LOOP IN WIRE AT CHANGES IN DIRECTION OF 30° OR GREATER. UNITE AFTER CONNECTION ARE MADE.
2. ALL PIPE WIRE OR SLEEVES UNDER PAVEMENT TO BE INSTALLED PRIOR TO PAVEMENT AND AT A MIN. OF 24" DEEP.
3. BUNDLE AND TAPE WIRE AT 10' INTERVALS.
4. WIRE UNDER PAVEMENT TO BE IN CONDUIT.

F IRRIGATION TRENCHING

NOT TO SCALE J–IR–MIS–16



D ZONE CONTROL

3" = 1'–0" 328413.46–03

50% SUBMITTAL - PRELIMINARY NOT FOR CONSTRUCTION

BY	DATE
APPROVED	

DESCRIPTION

REV

DATE: 02/22/2012
SCALE: H: VARIES V: NA
DRAWN BY: TT
DESIGNED BY: AMK
CHECKED BY: JAT

JACOBS
180 PROMENADE CIRCLE, STE 300
SACRAMENTO, CA 95834
PHONE (916) 929-3323 FAX (916) 929-1772

IMPROVEMENT PLANS FOR
MINER AVENUE
IRRIGATION DETAILS
CITY OF STOCKTON CALIFORNIA

LICENSED LANDSCAPE ARCHITECT
JEFFREY A. TOWNSEND
No. 3702
Signature
06/28/13
Renewal Date
Date
STATE OF CALIFORNIA

PROJECT NO: F7W76901
LI-06 OF 6
SHEET 25 OF 25

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APPENDIX C:

Cost Estimate - conceptual plan for ten block corridor

SUMMARY

Miner Avenue Streetscape Master Plan
Conceptual Master Plan Cost Analysis - Mar 12, 2011

SUMMARY		
Block	**Sheet**	**Costs**
1	Center Street To El Dorado Street	$2,091,280
2	El Dorado Street To Hunter Street	$2,734,440
3	Hunter Street To N. San Joaquin Street	$2,736,600
4	N. San Joaquin Street To Sutter Street *	$3,166,360
5	Sutter Street To California Street	$2,635,880
6	California Street To American Street	$1,726,440
7	American Street To N. Stanislaus Street	$1,881,240
8	N. Stanislaus Street To N. Grant Street	$2,177,480
9	N. Grant Street To N. Aurora Street **	$1,511,040
Total		**$20,660,760**

Notes:

* Block includes entire Sutter Street roundabout.
** Block includes improvements between N. Aurora Street and eastern project boundary.

1. This opinion of probable cost is based on the Miner Avenue Master Plan dated Dec. 2011.

2. All costs are in 2011 Dollars.

3. This document is prepared as a guide only and is subject to change. It has been prepared to a standard of

4. Demarcation between blocks, for the purpose of this opinion of probable cost, is the centerline of intersecting

5. This opinion of probable cost is a high level cost estimate. Limited site and survey information was available
   - Contractor Mobilization
   - Site Clearing and Grubbing
   - Mass Grading
   - Import/Export of Soil
   - Site Survey, Staking and Monuments
   - Erosion Control
   - Traffic Control
   - Sub-surface Investigation
   - Permitting and Fees

6. Relocation of existing utilities and construction of new utilities has been assumed based on the best

7. Irrigation service connection with controller, booster pump, meter and backflow preventer has been assumed

8. Unit price for light fixtures includes electrical connection and service point installation.

9. Existing roadway pavement and sidewalk is assumed to be demolished and removed.

UNIT PRICES

Miner Avenue Streetscape Master Plan
Conceptual Master Plan Cost Analysis - Mar 12, 2011

Description	**Units**	**Unit Cost**	**Remarks**
Cost Opinion Contingency		20%	
Mobilization		15%	
General Conditions		10%	
Demolition Contingency		20%	

Demolition

Demo AC	SF	$1
Demo Concrete	SF	$3
Demo Curb and Gutter	LF	$3
Demo Curb Ramp	EA	$300
Demo Driveway	EA	$2,500
Demo Storm Drain Inlet	EA	$5,000
Remove Existing Storm Drain Pipe	LF	$25
Remove Existing Water Pipe	LF	$11
Relocate Fire Hydrant	EA	$2,500
Adjust Manhole Rim to Finished Grade	EA	$500
Remove Tree	EA	$750
Demo Planter	SF	$3
Underground Overhead Electric	LF	$100
Remove Street Light	EA	$1,700
Relocate Traffic Light	EA	$100,000
Remove Bollard	EA	$100
Remove Parking Meter	EA	$100
Relocate Fence	LF	$20
Relocate Sign and Pole	EA	$200

Paving and Surfacing

Roadway Asphalt Pavement	SF	$5
Concrete Pavement	SF	$5
Colored Concrete Crosswalk Edge Band	LF	$21
Colored Concrete Intersection Pavement	SF	$14
Colored Concrete Roundabout Apron	SF	$14
Colored Concrete Sidewalk Edge Band	SF	$14
Brick Pavers over AB	SF	$25
Brick Pavers Over Concrete	SF	$28
Median Curb	LF	$25
Curb and Gutter	LF	$35
Curb Ramps	EA	$3,000
Grated Inlet Slot Through Curb (1' Wide)	LF	$30
Survey Monument	EA	$2,500
Driveway (15')	EA	$5,000
Driveway (20')	EA	$6,000
Driveway (25')	EA	$7,000
Driveway (60')	EA	$12,000
Driveway (118')	EA	$22,000

UNIT PRICES

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

Description	Units	Unit Cost
Landscaping		
Shrubs and Ground Cover	SF	$2.5
Irrigation	SF	$2.0
Planting Soil Import (36" depth) (36" depth)	SF	$2.5
Top Soil	CY	$60
Water Tolerant Planting	SF	$6
Filtration Media	CY	$40
Filter Fabric	SF	$1
Drain Rock	CY	$50
Irrigation Sleeve	LF	$35
Irrigation Pipe	LF	$25
Irrigation Booster Pump	EA	$17,000
Irrigation Controller	EA	$3,500
Irrigation BFP	EA	$3,800
Irrigation Meter	EA	$5,000
Irrigation Gate Valve	EA	$300
Irrigation Quick Coupler	EA	$200
Tree	EA	$300
Amenities		
Low Wall (12" Wide)	LF	$150
Seating Area Wall Pilaster	EA	$300
Concrete Wall (36" high w/ rebar)	LF	$70
Trash Receptacle	EA	$1,500
Recycling Receptacle	EA	$1,200
Bike Rack (6'x7')	EA	$1,500
Bollard	EA	$2,000
Bench	EA	$2,500
Tree Grate	EA	$1,000
Parking Meter Kiosk	EA	$10,000
Gateway Monument	EA	$15,000
Public Art	EA	$5,000
Fence	LF	$70
Vehicle Gate	EA	$2,100
Adjacent Building Improvements	LF	$200
Roundabout Island Focal Point	EA	$15,000

UNIT PRICES

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

Description	Units	Unit Cost
Utilities		
Ornamental Light	EA	$5,000
Street Light	EA	$3,000
Storm Drain Pipe - 12"	LF	$50
Storm Drain Pipe - 18"	LF	$60
Storm Drain Pipe - 24"	LF	$70
Perforated Underdrain	LF	$16
Catch Basin	EA	$1,000
Curb Inlet	EA	$1,500
Storm Drain Manhole	EA	$5,000
Core New Connection to EX MH	EA	$1,500
Water Pipe - 2"	LF	$25
Water Pipe - 4"	LF	$30
Water Pipe - 6"	LF	$35
Connection To Existing Water Pipe	EA	$1,500
Fire Hydrant Assembly	EA	$3,000
Gate Valve	EA	$1,000
Special Electrical (outlets, uplights, etc.)	EA	$700
Joint Trench	LF	$100
Electrical Circuit	LF	$2
Electrical Conduit	LF	$10
Utility Conflict Resolution and Contingency	LS	$50,000

Notes:

1. Unit prices include laber and materials.

2. Unit prices are based on 2011 dollars

CENTER STREET TO EL DORADO STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	34,700	SF	$1	$34,700
2	Demo Concrete Pavement	9,340	SF	$3	$28,100
3	Demo Curb and Gutter	710	LF	$3	$2,200
4	Demo Curb Ramp	4	EA	$300	$1,200
5	Demo Driveway	1	EA	$2,500	$2,500
6	Remove Storm Drain Pipe	200	LF	$25	$5,000
7	Demo Storm Drain Inlet	5	EA	$5,000	$25,000
8	Remove Water Pipe	500	LF	$11	$5,500
9	Adust Manhole Rim to Finished Grade	5	EA	$500	$2,500
10	Remove Tree	5	EA	$750	$3,800
11	Demo Planter	142	SF	$3	$500
12	Remove Street Light	4	EA	$1,700	$6,800
13	Relocate Traffic Light	4	EA	$100,000	$400,000
14	Remove Parking Meters	41	EA	$100	$4,100
15	Relocate Sign and Pole	9	EA	$200	$1,800
16	Demolition Contingency	1	LS	$104,740	$104,800
				Subtotal:	$628,500
Hardscape					
1	Roadway Asphalt Pavement	17,770	SF	$5	$88,900
2	Brick Pavers over AB	5,260	SF	$25	$131,500
3	Colored Concrete Crosswalk Edge Band	660	LF	$21	$13,900
4	Colored Concrete Intersecton Pavement	5,480	SF	$14	$76,800
5	Curb and Gutter	714	LF	$35	$25,000
6	Survey Monument	2	EA	$2,500	$5,000
7	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$345,600
Median					
1	Median Curb	600	SF	$25	$15,000
2	Median Concrete (1.5' Band Behind Curb)	990	SF	$5	$5,000
3	Median Shrubs and Ground Cover	1,240	SF	$2.5	$3,100
4	Median Irrigation	1,240	SF	$2	$2,500
5	Planting Soil Import (36" depth)	1,240	SF	$2.5	$3,100
6	Median Trees	5	EA	$300	$1,500
				Subtotal:	$30,200
Sidewalks					
1	Concrete Strip (1.5' Band Behind Curb)	1,160	SF	$5	$5,800
2	Sidewalk Concrete	7,590	SF	$5	$38,000
3	Brick Pavers over Concrete	725	SF	$28	$20,300
4	Colored Concrete Sidewalk Edge Band	120	SF	$14	$1,700
5	Low Wall (12" Wide)	105	LF	$150	$15,800
6	Grated Inlet Slot Through Curb (1' Wide)	50	LF	$30	$1,500
7	Curb Ramp	4	EA	$3,000	$12,000
				Subtotal:	$95,100

No.	Description	Quantity	Units	Unit Cost	Cost
Amenities					
1	Bike Rack (7'x6')	2	EA	$1,500	$3,000
2	Parking Meter Kiosk	2	EA	$10,000	$20,000
3	Street Lights	6	EA	$3,000	$18,000
4	Adjacent Building Improvements	300	LF	$200	$60,000
5	Gateway Monument	2	EA	$15,000	$30,000
6	Trash Receptacle	3	EA	$1,500	$4,500
7	Recycling Receptacle	3	EA	$1,200	$3,600
8	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$149,100
Planter Strip					
1	Shrubs and Ground Cover	2,400	SF	$2.5	$6,000
2	Planting Soil Import (36" depth) (36" depth)	2,400	SF	$3	$6,000
3	Irrigation	2,400	SF	$2	$4,800
4	Irrigation Sleeve	240	LF	$35	$8,400
5	Irrigation Pipe	640	LF	$25	$16,000
6	Irrigation Gate Valve	4	EA	$300	$1,200
7	Irrigation Quick Coupler	6	EA	$200	$1,200
8	Trees	19	EA	$300	$5,700
9	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$59,300
Utilities					
1	Storm Drain Pipe 12"	350	LF	$50	$17,500
2	Catch Basin	2	EA	$1,000	$2,000
3	Curb Inlet	4	EA	$1,500	$6,000
4	Storm Drain Manhole	4	EA	$5,000	$20,000
5	Core New Connection to EX MH	1	EA	$1,500	$1,500
6	Water Pipe - 6"	400	LF	$35	$14,000
7	Connection To Existing Water Pipe	2	EA	$1,500	$3,000
8	Fire Hydrant Assembly	1	EA	$3,000	$3,000
9	Gate Valve	4	EA	$1,000	$4,000
10	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
11	Electrical Circuit	400	LF	$2	$800
12	Electrical Conduit	200	LF	$10	$2,000
13	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$126,600

Total:	**$1,434,400**
Mobilization:	$220,000
General Conditions:	$150,000
Contingency:	20%
Sheet Total:	**$2,091,280**

EL DORADO STREET TO HUNTER STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	31,900	SF	$1	$31,900
2	Demo Concrete Pavement	10,390	SF	$3	$31,200
3	Demo Curb and Gutter	780	LF	$3	$2,400
4	Demo Curb Ramp	3	EA	$300	$900
5	Demo Driveway	1	EA	$2,500	$2,500
6	Remove Storm Drain Pipe	100	LF	$25	$2,500
7	Demo Storm Drain Inlet	2	EA	$5,000	$10,000
8	Remove Water Pipe	700	LF	$11	$7,700
9	Adust Manhole Rim to Finished Grade	22	EA	$500	$11,000
10	Remove Tree	6	EA	$750	$4,500
11	Demo Planter	30	SF	$3	$100
12	Remove Street Light	4	EA	$1,700	$6,800
13	Relocate Traffic Light	8	EA	$100,000	$800,000
14	Remove Bollard	10	EA	$100	$1,000
15	Relocate Sign and Pole	5	EA	$200	$1,000
16	Remove Parking Meter	26	EA	$100	$2,600
17	Demolition Contingency	1	LS	$183,220	$183,300
				Subtotal:	$1,099,400
Hardscape					
1	Roadway Asphalt Pavement	18,000	SF	$5	$90,000
2	Brick Pavers over AB	3,980	SF	$25	$99,500
3	Colored Concrete Crosswalk Edge Band	485	LF	$21	$10,200
4	Colored Concrete Intersecton Pavement	2,900	SF	$14	$40,600
5	Curb and Gutter	750	LF	$35	$26,300
6	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$271,100
Median					
1	Median Curb	630	SF	$25	$15,800
2	Median Concrete (1.5' Band Behind Curb)	1,250	SF	$5	$6,300
3	Median Shrubs and Ground Cover	2,400	SF	$2.5	$6,000
4	Median Irrigation	2,400	SF	$2	$4,800
5	Planting Soil Import (36" depth)	2,400	SF	$2.5	$6,000
6	Median Trees	10	EA	$300	$3,000
				Subtotal:	$41,900
Sidewalks					
1	Concrete Strip (1.5' Band Behind Curb)	1,160	SF	$5	$5,800
2	Sidewalk Concrete	7,900	SF	$5	$39,500
3	Brick Pavers over Concrete	725	SF	$28	$20,300
4	Colored Concrete Sidewalk Edge Band	120	SF	$14	$1,700
5	Low Wall (12" Wide)	105	LF	$150	$15,800
6	Grated Inlet Slot Through Curb (1' Wide)	50	LF	$30	$1,500
7	Curb Ramp	4	EA	$3,000	$12,000
				Subtotal:	$96,600

No.	Description	Quantity	Units	Unit Cost	Cost
Amenities					
1	Street Lights	3	EA	$3,000	$9,000
2	Bike Rack (7'x6')	2	EA	$1,500	$3,000
3	Parking Meter Kiosk	2	EA	$10,000	$20,000
4	Street Lights	6	EA	$3,000	$18,000
5	Adjacent Building Improvements	380	LF	$200	$76,000
6	Trash Receptacle	3	EA	$1,500	$4,500
7	Recycling Receptacle	3	EA	$1,200	$3,600
8	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$144,100
Planter Strip					
1	Shrubs and Ground Cover	4,300	SF	$2.5	$10,800
2	Irrigation	4,300	SF	$2	$8,600
3	Irrigation Sleeve	240	LF	$35	$8,400
4	Irrigation Pipe	640	LF	$25	$16,000
5	Irrigation Booster Pump	1	EA	$17,000	$17,000
6	Irrigation Controller	1	EA	$3,500	$3,500
7	Irrigation Meter	1	EA	$5,000	$5,000
8	Irrigation BFP	1	EA	$3,800	$3,800
9	Irrigation Gate Valve	4	EA	$300	$1,200
10	Irrigation Quick Coupler	6	EA	$200	$1,200
11	Planting Soil Import (36" depth)	4,300	SF	$3	$10,800
12	Trees	19	EA	$300	$5,700
				Subtotal:	$92,000
Utilities					
1	Storm Drain Pipe 12"	350	LF	$50	$17,500
2	Catch Basin	2	EA	$1,000	$2,000
3	Curb Inlet	4	EA	$1,500	$6,000
4	Storm Drain Manhole	4	EA	$5,000	$20,000
5	Core New Connection to EX MH	1	EA	$1,500	$1,500
6	Water Pipe - 6"	600	LF	$35	$21,000
7	Connection To Existing Water Pipe	2	EA	$1,500	$3,000
8	Fire Hydrant Assembly	1	EA	$3,000	$3,000
9	Gate Valve	4	EA	$1,000	$4,000
10	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
11	Electrical Circuit	400	LF	$2	$800
12	Electrical Conduit	200	LF	$10	$2,000
13	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$133,600

Total:	**$1,878,700**
Mobilization:	$290,000
General Conditions:	$190,000
Contingency:	20%
Sheet Total:	**$2,734,440**

HUNTER STREET TO N. SAN JOAQUIN STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	32,100	SF	$1	$32,100
2	Demo Concrete Pavement	9,280	SF	$3	$27,900
3	Demo Curb and Gutter	731	LF	$3	$2,200
4	Demo Curb Ramp	3	EA	$300	$900
5	Demo Driveway	4	EA	$2,500	$10,000
6	Remove Storm Drain Pipe	160	LF	$25	$4,000
7	Demo Storm Drain Inlet	4	EA	$5,000	$20,000
8	Remove Water Pipe	800	LF	$11	$8,800
9	Adust Manhole Rim to Finished Grade	15	EA	$500	$7,500
10	Remove Tree	1	EA	$750	$800
11	Demo Planter	25	SF	$3	$100
12	Remove Street Light	5	EA	$1,700	$8,500
13	Relocate Traffic Light	8	EA	$100,000	$800,000
14	Remove Bollard	5	EA	$100	$500
15	Relocate Sign and Pole	1	EA	$200	$200
16	Remove Fence	110	LF	$20	$2,200
17	Remove Parking Meter	28	EA	$100	$2,800
18	Demolition Contingency	1	LS	$185,700	$185,700
				Subtotal:	$1,114,200
Hardscape					
1	Roadway Asphalt Pavement	18,900	SF	$5	$94,500
2	Brick Pavers over AB	3,970	SF	$25	$99,300
3	Colored Concrete Crosswalk Edge Band	485	LF	$21	$10,200
4	Colored Concrete Intersecton Pavement	2,900	SF	$14	$40,600
5	Curb and Gutter	730	LF	$35	$25,600
6	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$274,700
Median					
1	Median Curb	620	SF	$25	$15,500
2	Median Concrete (1.5' Band Behind Curb)	1,120	SF	$5	$5,600
3	Median Shrubs and Ground Cover	1,820	SF	$2.5	$4,600
4	Median Irrigation	1,820	SF	$2	$3,700
5	Planting Soil Import (36" depth)	1,820	SF	$2.5	$4,600
6	Median Trees	8	EA	$300	$2,400
				Subtotal:	$36,400
Sidewalks					
1	Concrete Strip (1.5' Band Behind Curb)	950	SF	$5	$4,800
2	Sidewalk Concrete	8,360	SF	$5	$41,800
3	Brick Pavers Over Concrete	400	SF	$28	$11,200
4	Colored Concrete Sidewalk Edge Band	80	SF	$14	$1,200
5	Low Wall (12" Wide)	70	LF	$150	$10,500
6	Grated Inlet Slot Through Curb (1' Wide)	50	LF	$30	$1,500
7	Curb Ramp	4	EA	$3,000	$12,000
8	Driveway (25')	3	EA	$7,000	$21,000
				Subtotal:	$104,000

No.	Description	Quantity	Units	Unit Cost	Cost
Amenities					
1	Bike Rack (7'x6')	1	EA	$1,500	$1,500
2	Street Lights	2	EA	$3,000	$6,000
3	Parking Meter Kiosk	2	EA	$10,000	$20,000
4	Trash Receptacle	2	EA	$1,500	$3,000
5	Recycling Receptacle	2	EA	$1,200	$2,400
6	Adjacent Building Improvements	450	LF	$200	$90,000
7	Fence	110	LF	$70	$7,700
8	Street Lights	6	EA	$3,000	$18,000
10	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$158,600
Planter Strip					
1	Shrubs and Ground Cover	3,700	SF	$2.5	$9,300
2	Planting Soil Import (36" depth) (36" depth)	3,700	SF	$3	$9,300
3	Irrigation	3,700	SF	$2	$7,400
4	Irrigation Sleeve	240	LF	$35	$8,400
5	Irrigation Pipe	640	LF	$25	$16,000
6	Irrigation Gate Valve	4	EA	$300	$1,200
7	Irrigation Quick Coupler	6	EA	$200	$1,200
8	Tree Grates	6	EA	$1,000	$6,000
9	Trees	18	EA	$300	$5,400
				Subtotal:	$64,200
Utilities					
1	Storm Drain Pipe 12"	360	LF	$50	$18,000
2	Catch Basin	2	EA	$1,000	$2,000
3	Curb Inlet	4	EA	$1,500	$6,000
4	Storm Drain Manhole	4	EA	$5,000	$20,000
5	Core New Connection to EX MH	2	EA	$1,500	$3,000
6	Water Pipe - 6"	450	LF	$35	$15,800
7	Connection To Existing Water Pipe	2	EA	$1,500	$3,000
8	Fire Hydrant Assembly	1	EA	$3,000	$3,000
9	Gate Valve	2	EA	$1,000	$2,000
10	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
11	Electrical Circuit	400	LF	$2	$800
12	Electrical Conduit	200	LF	$10	$2,000
13	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$128,400

Total:	**$1,880,500**
Mobilization:	$290,000
General Conditions:	$190,000
Contingency:	20%
Sheet Total:	**$2,736,600**

N. SAN JOAQUIN STREET TO SUTTER STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	34,070	SF	$1	$34,100
2	Demo Concrete Pavement	9,720	SF	$3	$29,200
3	Demo Curb and Gutter	784	LF	$3	$2,400
4	Demo Curb Ramp	4	EA	$300	$1,200
5	Demo Driveway	6	EA	$2,500	$15,000
6	Remove Storm Drain Pipe	140	LF	$25	$3,500
7	Demo Storm Drain Inlet	5	EA	$5,000	$25,000
8	Remove Water Pipe	800	LF	$11	$8,800
9	Adust Manhole Rim to Finished Grade	11	EA	$500	$5,500
10	Remove Tree	12	EA	$750	$9,000
11	Demo Planter	360	SF	$3	$1,100
12	Remove Street Light	5	EA	$1,700	$8,500
13	Relocate Traffic Light	8	EA	$100,000	$800,000
14	Relocate Sign and Pole	5	EA	$200	$1,000
15	Remove Parking Meter	20	EA	$100	$2,000
16	Demolition Contingency	1	LS	$189,260	$189,300
				Subtotal:	$1,135,600
Hardscape					
1	Roadway Asphalt Pavement	15,000	SF	$5	$75,000
2	Brick Pavers over AB	2,640	SF	$25	$66,000
3	Brick Pavers Over Concrete	2,540	SF	$28	$71,200
4	Colored Concrete Crosswalk Edge Band	315	LF	$21	$6,700
5	Colored Concrete Sidewalk Edge Band	1,320	SF	$14	$18,500
6	Colored Concrete Intersecton Pavement	1,450	SF	$14	$20,300
7	Curb and Gutter	835	LF	$35	$29,300
8	Signage and Striping	1	LS	$6,500	$6,500
				Subtotal:	$293,500
Median					
1	Median Curb	810	SF	$25	$20,300
2	Median Concrete (1.5' Band Behind Curb)	1,110	SF	$5	$5,600
3	Median Shrubs and Ground Cover	1,600	SF	$2.5	$4,000
4	Median Irrigation	1,600	SF	$2	$3,200
5	Planting Soil Import (36" depth)	1,600	SF	$2.5	$4,000
6	Median Trees	6	EA	$300	$1,800
				Subtotal:	$38,900
Roundabout					
1	Roundabout Asphalt	7,740	SF	$14	$108,400
2	Colored Concrete Roundabout Apron	1,920	SF	$14	$26,900
3	Roundabout Curb	160	LF	$25	$4,000
4	Roundabout Island Planter	2,040	SF	$3	$5,100
5	Planting Soil Import (36" depth)	2,040	SF	$3	$5,100
6	Roundabout Island Focal Point	1	EA	$15,000	$15,000
7	Accent Lighting	6	EA	$5,000	$30,000
8	Roundabout Island Trees	6	EA	$300	$1,800
				Subtotal:	$196,300
Sidewalks					
1	Concrete Strip (1.5' Band Behind Curb)	420	SF	$5	$2,100
2	Sidewalk Concrete	9,560	SF	$5	$47,800
3	Brick Pavers Over Concrete	420	SF	$28	$11,800
4	Colored Concrete Sidewalk Edge Band	590	SF	$14	$8,300
5	Grated Inlet Slot Through Curb (1' Wide)	50	LF	$30	$1,500
6	Curb Ramp	6	EA	$3,000	$18,000
7	Driveway (20')	1	EA	$6,000	$6,000
8	Driveway (25')	4	EA	$7,000	$28,000
				Subtotal:	$123,500
Amenities					
1	Bollards	23	EA	$2,000	$46,000
2	Benches	10	EA	$2,500	$25,000
3	Trash Receptical	4	EA	$1,500	$6,000
4	Recycling Receptacle	2	EA	$1,200	$2,400
5	Parking Meter Kiosk	2	EA	$10,000	$20,000
6	Street Lights	8	EA	$3,000	$24,000
7	Adjacent Building Improvements	140	LF	$200	$28,000
8	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$161,400
Planter Strip					
1	Shrubs and Ground Cover	3,220	SF	$2.5	$8,100
2	Irrigation	3,220	SF	$2	$6,500
3	Irrigation Sleeve	240	LF	$35	$8,400
4	Irrigation Pipe	640	LF	$25	$16,000
5	Irrigation Booster Pump	1	EA	$17,000	$17,000
6	Irrigation Controller	1	EA	$3,500	$3,500
7	Irrigation Meter	1	EA	$5,000	$5,000
8	Irrigation BFP	1	EA	$3,800	$3,800
9	Irrigation Gate Valve	4	EA	$300	$1,200
10	Irrigation Quick Coupler	6	EA	$200	$1,200
11	Planting Soil Import (36" depth)	3,220	SF	$3	$8,100
12	Trees	19	EA	$300	$5,700
13	Tree Grates	6	EA	$1,000	$6,000
				Subtotal:	$90,500
Utilities					
1	Storm Drain Pipe 12"	350	LF	$50	$17,500
2	Catch Basin	2	EA	$1,000	$2,000
3	Curb Inlet	4	EA	$1,500	$6,000
4	Storm Drain Manhole	4	EA	$5,000	$20,000
5	Core New Connection to EX MH	1	EA	$1,500	$1,500
6	Water Pipe - 6"	800	LF	$35	$28,000
7	Connection To Existing Water Pipe	2	EA	$1,500	$3,000
8	Fire Hydrant Assembly	1	EA	$3,000	$3,000
9	Gate Valve	4	EA	$1,000	$4,000
10	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
11	Electrical Circuit	400	LF	$2	$800
12	Electrical Conduit	200	LF	$10	$2,000
13	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$140,600

Total:	**$2,180,300**
Mobilization:	$330,000
General Conditions:	$220,000
Contingency:	20%
Sheet Total:	**$3,166,360**

SUTTER STREET TO CALIFORNIA STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	34,180	SF	$1	$34,200
2	Demo Concrete Pavement	9,030	SF	$3	$27,100
3	Demo Curb and Gutter	780	LF	$3	$2,400
4	Demo Curb Ramp	4	EA	$300	$1,200
5	Demo Driveway	5	EA	$2,500	$12,500
6	Remove Storm Drain Pipe	80	LF	$25	$2,000
7	Demo Storm Drain Inlet	8	EA	$5,000	$40,000
8	Remove Water Pipe	800	LF	$11	$8,800
9	Relocate Fire Hydrant	2	EA	$2,500	$5,000
10	Adust Manhole Rim to Finished Grade	10	EA	$500	$5,000
11	Remove Tree	8	EA	$750	$6,000
12	Demo Planter	240	SF	$3	$800
13	Remove Street Light	6	EA	$1,700	$10,200
14	Relocate Traffic Light	7	EA	$100,000	$700,000
15	Relocate Sign and Pole	5	EA	$200	$1,000
16	Remove Parking Meter	18	EA	$100	$1,800
17	Demolition Contingency	1	LS	$171,600	$171,600
				Subtotal:	$1,029,600
Hardscape					
1	Roadway Asphalt Pavement	15,020	SF	$5	$75,100
2	Brick Pavers over AB	2,650	SF	$25	$66,300
3	Brick Pavers Over Concrete	1,270	SF	$28	$35,600
4	Colored Concrete Sidewalk Edge Band	660	SF	$14	$9,300
5	Colored Concrete Crosswalk Edge Band	315	LF	$21	$6,700
6	Colored Concrete Intersecton Pavement	1,450	SF	$14	$20,300
7	Grated Inlet Slot Through Curb (1' Wide)	50	LF	$30	$1,500
8	Curb and Gutter	835	LF	$35	$29,300
9	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$248,600
Median					
1	Median Curb	640	SF	$25	$16,000
2	Median Concrete (1.5' Band Behind Curb)	1,110	SF	$5	$5,600
3	Median Shrubs and Ground Cover	1,610	SF	$2.5	$4,100
4	Median Irrigation	1,610	SF	$2	$3,300
5	Planting Soil Import (36" depth) (36" depth)	1,610	SF	$2.5	$4,100
6	Median Trees	6	EA	$300	$1,800
				Subtotal:	$34,900
Sidewalks					
1	Sidewalk Concrete	9,390	SF	$5	$47,000
2	Brick Pavers over Concrete	545	SF	$28	$15,300
3	Colored Concrete Sidewalk Edge Band	670	SF	$14	$9,400
4	Curb Ramp	6	EA	$3,000	$18,000
5	Driveway (25')	1	EA	$7,000	$7,000
				Subtotal:	$96,700

Amenities					
1	Bollards	23	EA	$2,000	$46,000
2	Benches	10	EA	$2,500	$25,000
3	Trash Receptacle	4	EA	$1,500	$6,000
4	Recycling Receptacle	2	EA	$1,200	$2,400
5	Parking Meter Kiosk	2	EA	$10,000	$20,000
6	Street Lights	8	EA	$3,000	$24,000
7	Adjacent Building Improvements	200	LF	$200	$40,000
8	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$173,400
Planter Strip					
1	Shrubs and Ground Cover	3,670	SF	$2.5	$9,200
2	Planting Soil Import (36" depth) (36" depth)	3,670	SF	$3	$9,200
3	Irrigation	3,670	SF	$2	$7,400
4	Irrigation Sleeve	240	LF	$35	$8,400
5	Irrigation Pipe	640	LF	$25	$16,000
6	Irrigation Gate Valve	4	EA	$300	$1,200
7	Irrigation Quick Coupler	6	EA	$200	$1,200
8	Tree Grates	6	EA	$1,000	$6,000
9	Trees	16	EA	$300	$4,800
				Subtotal:	$63,400
Stormwater Planter					
1	Water Tolerant Planting	480	SF	$6	$2,900
2	Top Soil	20	CY	$60	$1,200
3	Filtration Media	27	CY	$40	$1,100
4	Filter Fabric	480	SF	$1	$400
5	Drain Rock	20	CY	$50	$1,000
6	Perforated Underdrain	55	LF	$16	$900
7	Concrete Wall (36" high w/ rebar)	145	LF	$70	$10,200
				Subtotal:	$17,700
Utilities					
1	Storm Drain Pipe 12"	350	LF	$50	$17,500
2	Catch Basin	2	EA	$1,000	$2,000
3	Curb Inlet	4	EA	$1,500	$6,000
4	Storm Drain Manhole	4	EA	$5,000	$20,000
5	Core New Connection to EX MH	1	EA	$1,500	$1,500
6	Water Pipe - 6"	800	LF	$35	$28,000
7	Connection To Existing Water Pipe	2	EA	$1,500	$3,000
8	Fire Hydrant Assembly	1	EA	$3,000	$3,000
9	Gate Valve	4	EA	$1,000	$4,000
10	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
11	Electrical Circuit	400	LF	$2	$800
12	Electrical Conduit	200	LF	$10	$2,000
13	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$140,600

Total:	**$1,804,900**
Mobilization:	$280,000
General Conditions:	$190,000
Contingency:	20%
Sheet Total:	**$2,635,880**

CALIFORNIA STREET TO AMERICAN STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	29,110	SF	$1	$29,200
2	Demo Concrete Pavement	8,720	SF	$3	$26,200
3	Demo Curb and Gutter	720	LF	$3	$2,200
4	Demo Curb Ramp	2	EA	$300	$600
5	Demo Driveway	6	EA	$2,500	$15,000
6	Remove Storm Drain Pipe	132	LF	$25	$3,300
7	Demo Storm Drain Inlet	3	EA	$5,000	$15,000
8	Remove Water Pipe	708	LF	$11	$7,800
9	Adust Manhole Rim to Finished Grade	6	EA	$500	$3,000
10	Underground Overhead Electric	320	LF	$100	$32,000
11	Remove Street Light	5	EA	$1,700	$8,500
12	Relocate Traffic Light	2	EA	$100,000	$200,000
13	Remove Sign and Pole	3	EA	$200	$600
14	Remove Fence	160	LF	$20	$3,200
15	Remove Parking Meter	15	EA	$100	$1,500
16	Demolition Contingency	1	LS	$69,620	$69,700
				Subtotal:	$417,800
Hardscape					
1	Roadway Asphalt Pavement	15,670	SF	$5	$78,400
2	Brick Pavers over AB	2,560	SF	$25	$64,000
3	Colored Concrete Crosswalk Edge Band	410	LF	$21	$8,700
4	Colored Concrete Intersecton Pavement	1,430	SF	$14	$20,100
5	Curb and Gutter	785	LF	$35	$27,500
6	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$203,200
Median					
1	Median Curb	630	SF	$25	$15,800
2	Median Concrete (1.5' Band Behind Curb)	1,130	SF	$5	$5,700
3	Median Shrubs and Ground Cover	1,820	SF	$2.5	$4,600
4	Median Irrigation	1,810	SF	$2	$3,700
5	Planting Soil Import (36" depth)	1,810	SF	$2.5	$4,600
6	Median Trees	7	EA	$300	$2,100
				Subtotal:	$36,500
Sidewalks					
1	Concrete Strip (1.5' Band Behind Curb)	530	SF	$5	$2,700
2	Sidewalk Concrete	8,240	SF	$5	$41,200
3	Brick Pavers Over Concrete	415	SF	$28	$11,700
4	Colored Concrete Sidewalk Edge Band	185	SF	$14	$2,600
5	Grated Inlet Slot Through Curb (1' Wide)	50	LF	$30	$1,500
6	Curb Ramp	4	EA	$3,000	$12,000
7	Driveway (15')	2	EA	$6,000	$12,000
8	Driveway (25')	2	EA	$7,000	$14,000
9	Driveway (60')	1	EA	$12,000	$12,000
				Subtotal:	$109,700

No.	Description	Quantity	Units	Unit Cost	Cost
Amenities					
1	Parking Meter Kiosk	2	EA	$10,000	$20,000
2	Street Lights	6	EA	$3,000	$18,000
3	Adjacent Building Improvements	160	LF	$200	$32,000
4	Fence	290	LF	$70	$20,300
5	Vehicle Gate	2	EA	$2,100	$4,200
6	Bench	5	EA	$2,500	$12,500
7	Bollard	10	EA	$2,000	$20,000
8	Trash Receptacle	2	EA	$1,500	$3,000
9	Recycling Receptacle	2	EA	$1,200	$2,400
10	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$142,400
Planter Strip					
1	Shrubs and Ground Cover	3,200	SF	$2.5	$8,000
2	Irrigation	3,200	SF	$2	$6,400
3	Irrigation Sleeve	240	LF	$35	$8,400
4	Irrigation Pipe	640	LF	$25	$16,000
5	Irrigation Booster Pump	1	EA	$17,000	$17,000
6	Irrigation Controller	1	EA	$3,500	$3,500
7	Irrigation Meter	1	EA	$5,000	$5,000
8	Irrigation BFP	1	EA	$3,800	$3,800
9	Irrigation Gate Valve	4	EA	$300	$1,200
10	Irrigation Quick Coupler	6	EA	$200	$1,200
11	Planting Soil Import (36" depth)	3,200	SF	$3	$8,000
12	Trees	11	EA	$300	$3,300
				Subtotal:	$81,800
Stormwater Planter					
1	Water Tolerant Planting	480	SF	$6	$2,900
2	Top Soil	20	CY	$60	$1,200
3	Filtration Media	27	CY	$40	$1,100
4	Filter Fabric	480	SF	$1	$400
5	Drain Rock	20	CY	$50	$1,000
6	Perforated Underdrain	55	LF	$16	$900
7	Concrete Wall (36" high w/ rebar)	145	LF	$70	$10,200
				Subtotal:	$17,700

CALIFORNIA STREET TO AMERICAN STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Utilities					
1	Storm Drain Pipe 12"	310	LF	$50	$15,500
2	Storm Drain Pipe 18"	30	LF	$60	$1,800
3	Catch Basin	2	EA	$1,000	$2,000
4	Curb Inlet	4	EA	$1,500	$6,000
5	Storm Drain Manhole	4	EA	$5,000	$20,000
6	Core New Connection to EX MH	2	EA	$1,500	$3,000
7	Water Pipe - 2"	17	LF	$25	$500
8	Water Pipe - 6"	720	LF	$35	$25,200
9	Connection To Existing Water Pipe	2	EA	$1,500	$3,000
10	Fire Hydrant Assembly	1	EA	$3,000	$3,000
11	Gate Valve	2	EA	$1,000	$2,000
12	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
13	Joint Trench	400	LF	$100	$40,000
14	Electrical Circuit	400	LF	$2	$800
15	Electrical Conduit	400	LF	$10	$4,000
16	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$179,600
				Total:	**$1,188,700**
				Mobilization:	$180,000
				General Conditions:	$120,000
				Contingency:	20%
				Sheet Total:	**$1,726,440**

AMERICAN STREET TO N. STANISLAUS STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	31,950	SF	$1	$32,000
2	Demo Concrete Pavement	7,740	SF	$3	$23,300
3	Demo Curb and Gutter	730	LF	$3	$2,200
4	Demo Curb Ramp	3	EA	$300	$900
5	Demo Driveway	9	EA	$2,500	$22,500
6	Remove Storm Drain Pipe	550	LF	$25	$13,800
7	Demo Storm Drain Inlet	4	EA	$5,000	$20,000
8	Remove Water Pipe	768	LF	$11	$8,500
9	Relocate Fire Hydrant	2	EA	$2,500	$5,000
10	Adust Manhole Rim to Finished Grade	7	EA	$500	$3,500
11	Demo Planter	200	SF	$3	$600
12	Underground Overhead Electric	400	LF	$100	$40,000
13	Remove Street Light	2	EA	$1,700	$3,400
14	Relocate Traffic Light	2	EA	$100,000	$200,000
15	Remove Sign and Pole	3	EA	$200	$600
16	Remove Fence	180	LF	$20	$3,600
17	Remove Parking Meter	24	EA	$100	$2,400
18	Demolition Contingency	1	LS	$76,460	$76,500
				Subtotal:	$458,800
Hardscape					
1	Roadway Asphalt Pavement	16,820	SF	$5	$84,100
2	Brick Pavers over AB	3,200	SF	$25	$80,000
3	Colored Concrete Crosswalk Edge Band	470	LF	$21	$9,900
4	Colored Concrete Intersecton Pavement	2,850	SF	$14	$39,900
5	Curb and Gutter	720	LF	$35	$25,200
6	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$243,600
Median					
1	Median Curb	620	SF	$25	$15,500
2	Median Concrete (1.5' Band Behind Curb)	1,120	SF	$5	$5,600
3	Median Shrubs and Ground Cover	1,830	SF	$2.5	$4,600
4	Median Irrigation	1,830	SF	$2	$3,700
5	Planting Soil Import (36" depth) (36" depth)	1,830	SF	$3	$4,600
6	Median Trees	8	EA	$300	$2,400
				Subtotal:	$36,400

No.	Description	Quantity	Units	Unit Cost	Cost
Sidewalks					
1	Concrete Strip (1.5' Band Behind Curb)	690	SF	$5	$3,500
2	Sidewalk Concrete	7,520	SF	$5	$37,600
3	Brick Pavers Over Concrete	1,115	SF	$28	$31,300
4	Colored Concrete Sidewalk Edge Band	200	SF	$14	$2,800
5	Grated Inlet Slot Through Curb (1' Wide)	20	LF	$30	$600
6	Curb Ramp	4	EA	$3,000	$12,000
7	Driveway (15')	1	EA	$5,000	$5,000
8	Driveway (25')	1	EA	$7,000	$7,000
				Subtotal:	$99,800
Amenities					
1	Bike Rack (7'x6')	1	EA	$1,500	$1,500
2	Bench	9	EA	$2,500	$22,500
3	Trash Receptacle	3	EA	$1,500	$4,500
4	Recycling Receptacle	3	EA	$1,200	$3,600
5	Parking Meter Kiosk	2	EA	$10,000	$20,000
6	Street Lights	6	EA	$3,000	$18,000
7	Adjacent Building Improvements	240	LF	$200	$48,000
8	Low Wall (12" Wide)	102	LF	$150	$15,300
9	Seating Area Wall Pilaster	14	EA	$300	$4,200
10	Tree Grate	3	EA	$1,000	$3,000
11	Fence	370	LF	$70	$25,900
12	Vehicle Gate	1	EA	$2,100	$2,100
13	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$178,600
Planter Strip					
1	Shrubs and Ground Cover	3,700	SF	$2.5	$9,300
2	Irrigation	3,700	SF	$2	$7,400
3	Irrigation Sleeve	220	LF	$35	$7,700
4	Irrigation Pipe	680	LF	$25	$17,000
5	Irrigation Gate Valve	3	EA	$300	$900
6	Irrigation Quick Coupler	6	EA	$200	$1,200
7	Planting Soil Import (36" depth) (36" depth)	3,700	SF	$3	$9,300
8	Trees	11	EA	$300	$3,300
				Subtotal:	$56,100
Stormwater Planter					
1	Water Tolerant Planting	570	SF	$6	$3,500
2	Top Soil	23	CY	$60	$1,400
3	Filtration Media	32	CY	$40	$1,300
4	Filter Fabric	570	SF	$1	$400
5	Drain Rock	23	CY	$50	$1,200
6	Perforated Underdrain	63	LF	$16	$1,100
7	Concrete Wall (36" high w/ rebar)	167	LF	$70	$11,700
				Subtotal:	$20,600

AMERICAN STREET TO N. STANISLAUS STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Utilities					
1	Storm Drain Pipe 12"	225	LF	$50	$11,300
2	Storm Drain Pipe 18"	370	LF	$60	$22,200
3	Catch Basin	2	EA	$1,000	$2,000
4	Curb Inlet	4	EA	$1,500	$6,000
5	Storm Drain Manhole	2	EA	$5,000	$10,000
6	Core New Connection to EX MH	2	EA	$1,500	$3,000
7	Water Pipe - 6"	820	LF	$35	$28,700
8	Connection To Existing Water Pipe	6	EA	$1,500	$9,000
9	Fire Hydrant Assembly	1	EA	$3,000	$3,000
10	Gate Valve	6	EA	$1,000	$6,000
11	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
12	Joint Trench	400	LF	$100	$40,000
13	Electrical Circuit	400	LF	$2	$800
14	Electrical Conduit	400	LF	$10	$4,000
15	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$198,800

Total:	**$1,292,700**
Mobilization:	$200,000
General Conditions:	$130,000
Contingency:	20%
Sheet Total:	**$1,881,240**

N. STANISLAUS STREET TO N. GRANT STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	32,000	SF	$1	$32,000
2	Demo Concrete Pavement	8,260	SF	$3	$24,800
3	Demo Curb and Gutter	725	LF	$3	$2,200
4	Demo Curb Ramp	6	EA	$300	$1,800
5	Demo Driveway	6	EA	$2,500	$15,000
6	Remove Storm Drain Pipe	167	LF	$25	$4,200
7	Demo Storm Drain Inlet	3	EA	$5,000	$15,000
8	Remove Water Pipe	740	LF	$11	$8,200
9	Relocate Fire Hydrant	1	EA	$2,500	$2,500
10	Adust Manhole Rim to Finished Grade	2	EA	$500	$1,000
11	Underground Overhead Electric	400	LF	$100	$40,000
12	Remove Street Light	2	EA	$1,700	$3,400
13	Relocate Traffic Light	4	EA	$100,000	$400,000
14	Remove Sign and Pole	6	EA	$200	$1,200
15	Remove Fence	330	LF	$20	$6,600
16	Remove Parking Meter	16	EA	$100	$1,600
17	Demolition Contingency	1	LS	$111,900	$111,900
				Subtotal:	$671,400
Hardscape					
1	Roadway Asphalt Pavement	17,100	SF	$5	$85,500
2	Brick Pavers over AB	3,230	SF	$25	$80,800
3	Colored Concrete Crosswalk Edge Band	480	LF	$21	$10,100
4	Colored Concrete Intersecton Pavement	3,225	SF	$14	$45,200
5	Curb and Gutter	720	LF	$35	$25,200
6	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$251,300
Median					
1	Median Curb	610	SF	$25	$15,300
2	Median Concrete (1.5' Band Behind Curb)	1,000	SF	$5	$5,000
3	Median Shrubs and Ground Cover	1,250	SF	$2.5	$3,200
4	Median Irrigation	1,250	SF	$2	$2,500
5	Planting Soil Import (36" depth) (36" depth)	1,250	SF	$3	$3,200
6	Median Trees	5	EA	$300	$1,500
				Subtotal:	$30,700

No.	Description	Quantity	Units	Unit Cost	Cost
Sidewalks					
1	Concrete Strip (1.5' Band Behind Curb)	700	SF	$5	$3,500
2	Sidewalk Concrete	7,660	SF	$5	$38,300
3	Brick Pavers Over Concrete	802	SF	$28	$22,500
4	Colored Concrete Sidewalk Edge Band	183	SF	$14	$2,600
5	Grated Inlet Slot Through Curb (1' Wide)	20	LF	$30	$600
6	Curb Ramp	4	EA	$3,000	$12,000
7	Driveway (15')	1	EA	$5,000	$5,000
8	Driveway (25')	1	EA	$7,000	$7,000
				Subtotal:	$91,500
Amenities					
1	Bike Rack (7'x6')	1	EA	$1,500	$1,500
2	Bench	6	EA	$2,500	$15,000
3	Trash Receptacle	2	EA	$1,500	$3,000
4	Recycling Receptacle	2	EA	$1,200	$2,400
5	Parking Meter Kiosk	2	EA	$10,000	$20,000
6	Street Lights	6	EA	$3,000	$18,000
7	Low Wall (12" Wide)	42	LF	$150	$6,300
8	Seating Area Wall Pilaster	9	EA	$300	$2,700
9	Tree Grate	2	EA	$1,000	$2,000
10	Fence	350	LF	$70	$24,500
11	Adjacent Building Improvements	240	LF	$200	$48,000
12	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$153,400
Planter Strip					
1	Shrubs and Ground Cover	4,000	SF	$2.5	$10,000
2	Irrigation	4,000	SF	$2	$8,000
3	Irrigation Sleeve	260	LF	$35	$9,100
4	Irrigation Pipe	670	LF	$25	$16,800
5	Irrigation Booster Pump	1	EA	$17,000	$17,000
6	Irrigation Controller	1	EA	$3,500	$3,500
7	Irrigation Meter	1	EA	$5,000	$5,000
8	Irrigation BFP	1	EA	$3,800	$3,800
9	Irrigation Gate Valve	4	EA	$300	$1,200
10	Irrigation Quick Coupler	6	EA	$200	$1,200
11	Planting Soil Import (36" depth) (36" depth)	4,000	SF	$3	$10,000
12	Trees	14	EA	$300	$4,200
				Subtotal:	$89,800
Stormwater Planter					
1	Water Tolerant Planting	520	SF	$6	$3,200
2	Top Soil	21	CY	$60	$1,300
3	Filtration Media	29	CY	$40	$1,200
4	Filter Fabric	520	SF	$1	$400
5	Drain Rock	21	CY	$50	$1,100
6	Perforated Underdrain	56	LF	$16	$900
7	Concrete Wall (36" high w/ rebar)	155	LF	$70	$10,900
				Subtotal:	$19,000

N. STANISLAUS STREET TO N. GRANT STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Utilities					
1	Storm Drain Pipe 12"	560	LF	$50	$28,000
2	Catch Basin	2	EA	$1,000	$2,000
3	Curb Inlet	4	EA	$1,500	$6,000
4	Storm Drain Manhole	4	EA	$5,000	$20,000
6	Core New Connection to EX MH	1	EA	$1,500	$1,500
5	Water Pipe - 2"	16	LF	$25	$400
6	Water Pipe - 6"	780	LF	$35	$27,300
7	Connection To Existing Water Pipe	2	EA	$1,500	$3,000
8	Fire Hydrant Assembly	1	EA	$3,000	$3,000
9	Gate Valve	2	EA	$1,000	$2,000
10	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
11	Joint Trench	400	LF	$100	$40,000
12	Electrical Circuit	400	LF	$2	$800
13	Electrical Conduit	400	LF	$10	$4,000
14	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$190,800
				Total:	**$1,497,900**
				Mobilization:	$230,000
				General Conditions:	$150,000
				Contingency:	20%
				Sheet Total:	**$2,177,480**

N. GRANT STREET TO N. AURORA STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	36,420	SF	$1	$36,500
2	Demo Concrete Pavement	6,900	SF	$3	$20,700
3	Demo Curb and Gutter	820	LF	$3	$2,500
4	Demo Curb Ramp	5	EA	$300	$1,500
5	Demo Driveway	6	EA	$2,500	$15,000
6	Remove Storm Drain Pipe	166	LF	$25	$4,200
7	Demo Storm Drain Inlet	4	EA	$5,000	$20,000
8	Remove Water Pipe	344	LF	$11	$3,800
9	Adust Manhole Rim to Finished Grade	7	EA	$500	$3,500
10	Remove Tree	2	EA	$750	$1,500
11	Demo Planter	670	SF	$3	$2,100
12	Underground Overhead Electric	560	LF	$100	$56,000
13	Remove Street Light	3	EA	$1,700	$5,100
14	Remove Sign and Pole	6	EA	$200	$1,200
15	Remove Fence	310	LF	$20	$6,200
16	Remove Parking Meter	8	EA	$100	$800
17	Demolition Contingency	1	LS	$36,120	$36,200
				Subtotal:	$216,800
Hardscape					
1	Roadway Asphalt Pavement	28,400	SF	$5	$142,000
2	Brick Pavers over AB	3,280	SF	$25	$82,000
3	Colored Concrete Crosswalk Edge Band	500	LF	$21	$10,500
4	Colored Concrete Intersecton Pavement	1,800	SF	$14	$25,200
5	Curb and Gutter	725	LF	$35	$25,400
6	Survey Monument	1	EA	$2,500	$2,500
7	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$292,100
Median					
1	Median Curb	680	SF	$25	$17,000
2	Median Concrete (1.5' Band Behind Curb)	630	SF	$5	$3,200
				Subtotal:	$20,200
Sidewalks					
1	Sidewalk Concrete	5,630	SF	$5	$28,200
2	Brick Pavers Over Concrete	822	SF	$28	$23,100
3	Colored Concrete Sidewalk Edge Band	180	SF	$14	$2,600
4	Curb Ramp	6	EA	$3,000	$18,000
5	Driveway (15')	1	EA	$5,000	$5,000
6	Driveway (20')	1	EA	$6,000	$6,000
7	Driveway (25')	2	EA	$7,000	$14,000
				Subtotal:	$96,900

No.	Description	Quantity	Units	Unit Cost	Cost
Amenities					
1	Parking Meter Kiosk	2	EA	$10,000	$20,000
2	Bench	9	EA	$2,500	$22,500
3	Trash Receptacle	3	EA	$1,500	$4,500
4	Recycling Receptacle	3	EA	$1,200	$3,600
5	Street Lights	6	EA	$3,000	$18,000
6	Low Wall (12" Wide)	54	LF	$150	$8,100
7	Seating Area Wall Pilaster	12	EA	$300	$3,600
8	Tree Grate	3	EA	$1,000	$3,000
9	Fence	370	LF	$70	$25,900
10	Vehicle Gate	1	EA	$2,100	$2,100
11	Adjacent Building Improvements	220	LF	$200	$44,000
12	Gateway Monument	2	EA	$15,000	$30,000
13	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$195,300
Planter Strip					
1	Shrubs and Ground Cover	2,500	SF	$3	$6,300
2	Irrigation	2,500	SF	$2	$5,000
3	Irrigation Sleeve	310	LF	$35	$10,900
4	Irrigation Pipe	670	LF	$25	$16,800
5	Irrigation Gate Valve	3	EA	$300	$900
6	Irrigation Quick Coupler	6	EA	$200	$1,200
7	Planting Soil Import (36" depth)	2,500	SF	$3	$6,300
8	Trees	14	EA	$300	$4,200
				Subtotal:	$51,600
Stormwater Planter					
1	Water Tolerant Planting	420	SF	$6	$2,600
2	Top Soil	17	CY	$60	$1,100
3	Filtration Media	24	CY	$40	$1,000
4	Filter Fabric	420	SF	$1	$300
5	Drain Rock	17	CY	$50	$900
6	Perforated Underdrain	60	LF	$16	$1,000
7	Concrete Wall (36" high w/ rebar)	155	LF	$70	$10,900
				Subtotal:	$17,800

N. GRANT STREET TO N. AURORA STREET

Miner Avenue Streetscape Master Plan

Conceptual Master Plan Cost Analysis - Mar 12, 2011

No.	Description	Quantity	Units	Unit Cost	Cost
Utilities					
1	Storm Drain Pipe 12"	230	LF	$50	$11,500
2	Catch Basin	2	EA	$1,000	$2,000
3	Curb Inlet	4	EA	$1,500	$6,000
4	Storm Drain Manhole	1	EA	$5,000	$5,000
5	Core New Connection to EX MH	2	EA	$1,500	$3,000
6	Water Pipe - 6"	340	LF	$30	$10,200
7	Connection To Existing Water Pipe	1	EA	$1,500	$1,500
8	Gate Valve	1	EA	$1,000	$1,000
9	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
10	Joint Trench	440	LF	$100	$44,000
11	Electrical Circuit	540	LF	$2	$1,100
12	Electrical Conduit	540	LF	$10	$5,400
13	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$143,500
				Total:	**$1,034,200**
				Mobilization:	$160,000
				General Conditions:	$110,000
				Contingency:	20%
				Sheet Total:	**$1,511,040**

APPENDIX D:

Cost Estimate – preliminary construction documents for four blocks, Aurora to California Streets

Miner Avenue Streetscape/Landscape 50% Improvement Plans

SUMMARY

N. California St to N. Aurora St.

SUMMARY		
Block	**Sheet**	**Costs**
6	California Street To American Street	$1,726,440
7	American Street To N. Stanislaus Street	$1,881,240
8	N. Stanislaus Street To N. Grant Street	$2,177,480
9	N. Grant Street To N. Aurora Street	$1,511,040
Total		**$7,296,200**

Notes:

1. This opinion of probable cost is based on the Miner Avenue 50% Streetscape/Landscape Improvement Plans dated Feb. 2012.

2. All costs are in 2012 Dollars.

3. This document is prepared as a guide only and is subject to change. It has been prepared to a standard of accuracy which, to the best of our knowledge and judgment, is sufficient to satisfy our understanding of the purposes. Jacobs makes no warranty, either expressed or implied, as to the accuracy of this opinion.

4. Demarcation between blocks, for the purpose of this opinion of probable cost, is the centerline of intersecting roads with the exception of N. Aurora Street where the entire intersection is included in block 9.

5. This opinion of probable cost is a preliminary cost estimate. Limited site and survey information was available at the time of this cost estimate. As a result, the following items have not been included.
   - Contractor Mobilization
   - Site Clearing and Grubbing
   - Mass Grading
   - Import/Export of Soil
   - Site Survey, Staking and Monuments
   - Erosion Control
   - Traffic Control
   - Sub-surface Investigation
   - Permitting and Fees

6. Unit price for light fixtures includes electrical connection and service point installation.

7. Existing roadway pavement and sidewalk is assumed to be demolished and removed.

UNIT PRICES

N. California St to N. Aurora St.

Description	Units	Unit Cost
Cost Opinion Contingency		20%
Mobilization		15%
General Conditions		10%
Demolition Contingency		20%

Demolition

Demo AC	SF	$1
Demo Concrete	SF	$3
Demo Curb and Gutter	LF	$3
Demo Curb Ramp	EA	$300
Demo Driveway	EA	$2,500
Demo Storm Drain Inlet	EA	$5,000
Remove Existing Storm Drain Pipe	LF	$25
Remove Existing Water Pipe	LF	$11
Relocate Fire Hydrant	EA	$2,500
Adjust Manhole Rim to Finished Grade	EA	$500
Remove Tree	EA	$750
Demo Planter	SF	$3
Underground Overhead Electric	LF	$100
Remove Street Light	EA	$1,700
Relocate Traffic Light	EA	$100,000
Remove Bollard	EA	$100
Remove Parking Meter	EA	$100
Remove Fence	LF	$20
Remove Sign and Pole	EA	$200

Paving and Surfacing

Roadway Asphalt Pavement	SF	$5
Concrete Pavement	SF	$5
Colored Concrete Crosswalk Edge Band	LF	$21
Colored Concrete Intersection Pavement	SF	$14
Colored Concrete Roundabout Apron	SF	$14
Colored Concrete Sidewalk Edge Band	SF	$14
Brick Pavers over AB	SF	$25
Brick Pavers Over Concrete	SF	$28
Median Curb	LF	$25
Curb and Gutter	LF	$35
Curb Ramps	EA	$3,000
Grated Inlet Slot Through Curb (1' Wide)	LF	$30
Survey Monument	EA	$2,500
Driveway (15')	EA	$5,000
Driveway (20')	EA	$6,000
Driveway (25')	EA	$7,000
Driveway (60')	EA	$12,000
Driveway (118')	EA	$22,000

UNIT PRICES

N. California St to N. Aurora St.

Description	Units	Unit Cost
Landscaping		
Shrubs and Ground Cover	SF	$2.5
Irrigation	SF	$2.0
Planting Soil Import (36" depth)	SF	$2.5
Top Soil	CY	$60
Water Tolerant Planting	SF	$6
Filtration Media	CY	$40
Filter Fabric	SF	$1
Drain Rock	CY	$50
Irrigation Sleeve	LF	$35
Irrigation Pipe	LF	$25
Irrigation Booster Pump	EA	$17,000
Irrigation Controller	EA	$3,500
Irrigation BFP	EA	$3,800
Irrigation Meter	EA	$5,000
Irrigation Gate Valve	EA	$300
Irrigation Quick Coupler	EA	$200
Tree	EA	$300
Amenities		
Low Wall (12" Wide)	LF	$150
Seating Area Wall Pilaster	EA	$300
Concrete Wall (36" high w/ rebar)	LF	$70
Trash Receptacle	EA	$1,500
Recycling Receptacle	EA	$1,200
Bike Rack (6'x7')	EA	$1,500
Bollard	EA	$2,000
Bench	EA	$2,500
Tree Grate	EA	$1,000
Parking Meter Kiosk	EA	$10,000
Gateway Monument	EA	$15,000
Public Art	EA	$5,000
Fence	LF	$70
Vehicle Gate	EA	$2,100
Adjacent Building Improvements	LF	$200

UNIT PRICES

N. California St to N. Aurora St.

Description	Units	Unit Cost
Utilities		
Ornamental Light	EA	$5,000
Street Light	EA	$3,000
Storm Drain Pipe - 12"	LF	$50
Storm Drain Pipe - 18"	LF	$60
Storm Drain Pipe - 24"	LF	$70
Perforated Underdrain	LF	$16
Catch Basin	EA	$1,000
Curb Inlet	EA	$1,500
Storm Drain Manhole	EA	$5,000
Core New Connection to EX MH	EA	$1,500
Water Pipe - 2"	LF	$25
Water Pipe - 4"	LF	$30
Water Pipe - 6"	LF	$35
Connection To Existing Water Pipe	EA	$1,500
Fire Hydrant Assembly	EA	$3,000
Gate Valve	EA	$1,000
Special Electrical (outlets, uplights, etc.)	EA	$700
Joint Trench	LF	$100
Electrical Circuit	LF	$2
Electrical Conduit	LF	$10
Utility Conflict Resolution and Contingency	LS	$50,000

CALIFORNIA STREET TO AMERICAN STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	29,110	SF	$1	$29,200
2	Demo Concrete Pavement	8,720	SF	$3	$26,200
3	Demo Curb and Gutter	720	LF	$3	$2,200
4	Demo Curb Ramp	2	EA	$300	$600
5	Demo Driveway	6	EA	$2,500	$15,000
6	Remove Storm Drain Pipe	132	LF	$25	$3,300
7	Demo Storm Drain Inlet	3	EA	$5,000	$15,000
8	Remove Water Pipe	708	LF	$11	$7,800
9	Adust Manhole Rim to Finished Grade	6	EA	$500	$3,000
10	Underground Overhead Electric	320	LF	$100	$32,000
11	Remove Street Light	5	EA	$1,700	$8,500
12	Relocate Traffic Light	2	EA	$100,000	$200,000
13	Remove Sign and Pole	3	EA	$200	$600
14	Remove Fence	160	LF	$20	$3,200
15	Remove Parking Meter	15	EA	$100	$1,500
16	Demolition Contingency	1	LS	$69,620	$69,700
				Subtotal:	$417,800
Hardscape					
1	Roadway Asphalt Pavement	15,670	SF	$5	$78,400
2	Brick Pavers over AB	2,560	SF	$25	$64,000
3	Colored Concrete Crosswalk Edge Band	410	LF	$21	$8,700
4	Colored Concrete Intersecton Pavement	1,430	SF	$14	$20,100
5	Curb and Gutter	785	LF	$35	$27,500
6	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$203,200
Median					
1	Median Curb	630	SF	$25	$15,800
2	Median Concrete (1.5' Band Behind Curb)	1,130	SF	$5	$5,700
3	Median Shrubs and Ground Cover	1,820	SF	$2.5	$4,600
4	Median Irrigation	1,810	SF	$2	$3,700
5	Planting Soil Import (36" depth)	1,810	SF	$2.5	$4,600
6	Median Trees	7	EA	$300	$2,100
				Subtotal:	$36,500
Sidewalks					
1	Concrete Strip (1.5' Band Behind Curb)	530	SF	$5	$2,700
2	Sidewalk Concrete	8,240	SF	$5	$41,200
3	Brick Pavers Over Concrete	415	SF	$28	$11,700
4	Colored Concrete Sidewalk Edge Band	185	SF	$14	$2,600
5	Grated Inlet Slot Through Curb (1' Wide)	50	LF	$30	$1,500
6	Curb Ramp	4	EA	$3,000	$12,000
7	Driveway (15')	2	EA	$6,000	$12,000
8	Driveway (25')	2	EA	$7,000	$14,000
9	Driveway (60')	1	EA	$12,000	$12,000
				Subtotal:	$109,700

CALIFORNIA STREET TO AMERICAN STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Amenities					
1	Parking Meter Kiosk	2	EA	$10,000	$20,000
2	Street Lights	6	EA	$3,000	$18,000
3	Adjacent Building Improvements	160	LF	$200	$32,000
4	Fence	290	LF	$70	$20,300
5	Vehicle Gate	2	EA	$2,100	$4,200
6	Bench	5	EA	$2,500	$12,500
7	Bollard	10	EA	$2,000	$20,000
8	Trash Receptacle	2	EA	$1,500	$3,000
9	Recycling Receptacle	2	EA	$1,200	$2,400
10	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$142,400
Planter Strip					
1	Shrubs and Ground Cover	3,200	SF	$2.5	$8,000
2	Irrigation	3,200	SF	$2	$6,400
3	Irrigation Sleeve	240	LF	$35	$8,400
4	Irrigation Pipe	640	LF	$25	$16,000
5	Irrigation Booster Pump	1	EA	$17,000	$17,000
6	Irrigation Controller	1	EA	$3,500	$3,500
7	Irrigation Meter	1	EA	$5,000	$5,000
8	Irrigation BFP	1	EA	$3,800	$3,800
9	Irrigation Gate Valve	4	EA	$300	$1,200
10	Irrigation Quick Coupler	6	EA	$200	$1,200
11	Planting Soil Import (36" depth)	3,200	SF	$3	$8,000
12	Trees	11	EA	$300	$3,300
				Subtotal:	$81,800
Stormwater Planter					
1	Water Tolerant Planting	480	SF	$6	$2,900
2	Top Soil	20	CY	$60	$1,200
3	Filtration Media	27	CY	$40	$1,100
4	Filter Fabric	480	SF	$1	$400
5	Drain Rock	20	CY	$50	$1,000
6	Perforated Underdrain	55	LF	$16	$900
7	Concrete Wall (36" high w/ rebar)	145	LF	$70	$10,200
				Subtotal:	$17,700

CALIFORNIA STREET TO AMERICAN STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Utilities					
1	Storm Drain Pipe 12"	310	LF	$50	$15,500
2	Storm Drain Pipe 18"	30	LF	$60	$1,800
3	Catch Basin	2	EA	$1,000	$2,000
4	Curb Inlet	4	EA	$1,500	$6,000
5	Storm Drain Manhole	4	EA	$5,000	$20,000
6	Core New Connection to EX MH	2	EA	$1,500	$3,000
7	Water Pipe - 2"	17	LF	$25	$500
8	Water Pipe - 6"	720	LF	$35	$25,200
9	Connection To Existing Water Pipe	2	EA	$1,500	$3,000
10	Fire Hydrant Assembly	1	EA	$3,000	$3,000
11	Gate Valve	2	EA	$1,000	$2,000
12	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
13	Joint Trench	400	LF	$100	$40,000
14	Electrical Circuit	400	LF	$2	$800
15	Electrical Conduit	400	LF	$10	$4,000
16	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$179,600
				Total:	**$1,188,700**
				Mobilization:	$180,000
				General Conditions:	$120,000
				Contingency:	20%
				Sheet Total:	**$1,726,440**

AMERICAN STREET TO N. STANISLAUS STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	31,950	SF	$1	$32,000
2	Demo Concrete Pavement	7,740	SF	$3	$23,300
3	Demo Curb and Gutter	730	LF	$3	$2,200
4	Demo Curb Ramp	3	EA	$300	$900
5	Demo Driveway	9	EA	$2,500	$22,500
6	Remove Storm Drain Pipe	550	LF	$25	$13,800
7	Demo Storm Drain Inlet	4	EA	$5,000	$20,000
8	Remove Water Pipe	768	LF	$11	$8,500
9	Relocate Fire Hydrant	2	EA	$2,500	$5,000
10	Adust Manhole Rim to Finished Grade	7	EA	$500	$3,500
11	Demo Planter	200	SF	$3	$600
12	Underground Overhead Electric	400	LF	$100	$40,000
13	Remove Street Light	2	EA	$1,700	$3,400
14	Relocate Traffic Light	2	EA	$100,000	$200,000
15	Remove Sign and Pole	3	EA	$200	$600
16	Remove Fence	180	LF	$20	$3,600
17	Remove Parking Meter	24	EA	$100	$2,400
18	Demolition Contingency	1	LS	$76,460	$76,500
				Subtotal:	$458,800
Hardscape					
1	Roadway Asphalt Pavement	16,820	SF	$5	$84,100
2	Brick Pavers over AB	3,200	SF	$25	$80,000
3	Colored Concrete Crosswalk Edge Band	470	LF	$21	$9,900
4	Colored Concrete Intersecton Pavement	2,850	SF	$14	$39,900
5	Curb and Gutter	720	LF	$35	$25,200
6	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$243,600
Median					
1	Median Curb	620	SF	$25	$15,500
2	Median Concrete (1.5' Band Behind Curb)	1,120	SF	$5	$5,600
3	Median Shrubs and Ground Cover	1,830	SF	$2.5	$4,600
4	Median Irrigation	1,830	SF	$2	$3,700
5	Planting Soil Import (36" depth)	1,830	SF	$3	$4,600
6	Median Trees	8	EA	$300	$2,400
				Subtotal:	$36,400
Sidewalks					
1	Concrete Strip (1.5' Band Behind Curb)	690	SF	$5	$3,500
2	Sidewalk Concrete	7,520	SF	$5	$37,600
3	Brick Pavers Over Concrete	1,115	SF	$28	$31,300
4	Colored Concrete Sidewalk Edge Band	200	SF	$14	$2,800
5	Grated Inlet Slot Through Curb (1' Wide)	20	LF	$30	$600
6	Curb Ramp	4	EA	$3,000	$12,000
7	Driveway (15')	1	EA	$5,000	$5,000
8	Driveway (25')	1	EA	$7,000	$7,000
				Subtotal:	$99,800

AMERICAN STREET TO N. STANISLAUS STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Amenities					
1	Bike Rack (7'x6')	1	EA	$1,500	$1,500
2	Bench	9	EA	$2,500	$22,500
3	Trash Receptacle	3	EA	$1,500	$4,500
4	Recycling Receptacle	3	EA	$1,200	$3,600
5	Parking Meter Kiosk	2	EA	$10,000	$20,000
6	Street Lights	6	EA	$3,000	$18,000
7	Adjacent Building Improvements	240	LF	$200	$48,000
8	Low Wall (12" Wide)	102	LF	$150	$15,300
9	Seating Area Wall Pilaster	14	EA	$300	$4,200
10	Tree Grate	3	EA	$1,000	$3,000
11	Fence	370	LF	$70	$25,900
12	Vehicle Gate	1	EA	$2,100	$2,100
13	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$178,600
Planter Strip					
1	Shrubs and Ground Cover	3,700	SF	$2.5	$9,300
2	Irrigation	3,700	SF	$2	$7,400
3	Irrigation Sleeve	220	LF	$35	$7,700
4	Irrigation Pipe	680	LF	$25	$17,000
5	Irrigation Gate Valve	3	EA	$300	$900
6	Irrigation Quick Coupler	6	EA	$200	$1,200
7	Planting Soil Import (36" depth)	3,700	SF	$3	$9,300
8	Trees	11	EA	$300	$3,300
				Subtotal:	$56,100
Stormwater Planter					
1	Water Tolerant Planting	570	SF	$6	$3,500
2	Top Soil	23	CY	$60	$1,400
3	Filtration Media	32	CY	$40	$1,300
4	Filter Fabric	570	SF	$1	$400
5	Drain Rock	23	CY	$50	$1,200
6	Perforated Underdrain	63	LF	$16	$1,100
7	Concrete Wall (36" high w/ rebar)	167	LF	$70	$11,700
				Subtotal:	$20,600

AMERICAN STREET TO N. STANISLAUS STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Utilities					
1	Storm Drain Pipe 12"	225	LF	$50	$11,300
2	Storm Drain Pipe 18"	370	LF	$60	$22,200
3	Catch Basin	2	EA	$1,000	$2,000
4	Curb Inlet	4	EA	$1,500	$6,000
5	Storm Drain Manhole	2	EA	$5,000	$10,000
6	Core New Connection to EX MH	2	EA	$1,500	$3,000
7	Water Pipe - 6"	820	LF	$35	$28,700
8	Connection To Existing Water Pipe	6	EA	$1,500	$9,000
9	Fire Hydrant Assembly	1	EA	$3,000	$3,000
10	Gate Valve	6	EA	$1,000	$6,000
11	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
12	Joint Trench	400	LF	$100	$40,000
13	Electrical Circuit	400	LF	$2	$800
14	Electrical Conduit	400	LF	$10	$4,000
15	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$198,800
				Total:	**$1,292,700**
				Mobilization:	$200,000
				General Conditions:	$130,000
				Contingency:	20%
				Sheet Total:	**$1,881,240**

N. STANISLAUS STREET TO N. GRANT STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	32,000	SF	$1	$32,000
2	Demo Concrete Pavement	8,260	SF	$3	$24,800
3	Demo Curb and Gutter	725	LF	$3	$2,200
4	Demo Curb Ramp	6	EA	$300	$1,800
5	Demo Driveway	6	EA	$2,500	$15,000
6	Remove Storm Drain Pipe	167	LF	$25	$4,200
7	Demo Storm Drain Inlet	3	EA	$5,000	$15,000
8	Remove Water Pipe	740	LF	$11	$8,200
9	Relocate Fire Hydrant	1	EA	$2,500	$2,500
10	Adust Manhole Rim to Finished Grade	2	EA	$500	$1,000
11	Underground Overhead Electric	400	LF	$100	$40,000
12	Remove Street Light	2	EA	$1,700	$3,400
13	Relocate Traffic Light	4	EA	$100,000	$400,000
14	Remove Sign and Pole	6	EA	$200	$1,200
15	Remove Fence	330	LF	$20	$6,600
16	Remove Parking Meter	16	EA	$100	$1,600
17	Demolition Contingency	1	LS	$111,900	$111,900
				Subtotal:	$671,400
Hardscape					
1	Roadway Asphalt Pavement	17,100	SF	$5	$85,500
2	Brick Pavers over AB	3,230	SF	$25	$80,800
3	Colored Concrete Crosswalk Edge Band	480	LF	$21	$10,100
4	Colored Concrete Intersecton Pavement	3,225	SF	$14	$45,200
5	Curb and Gutter	720	LF	$35	$25,200
6	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$251,300
Median					
1	Median Curb	610	SF	$25	$15,300
2	Median Concrete (1.5' Band Behind Curb)	1,000	SF	$5	$5,000
3	Median Shrubs and Ground Cover	1,250	SF	$2.5	$3,200
4	Median Irrigation	1,250	SF	$2	$2,500
5	Planting Soil Import (36" depth)	1,250	SF	$3	$3,200
6	Median Trees	5	EA	$300	$1,500
				Subtotal:	$30,700
Sidewalks					
1	Concrete Strip (1.5' Band Behind Curb)	700	SF	$5	$3,500
2	Sidewalk Concrete	7,660	SF	$5	$38,300
3	Brick Pavers Over Concrete	802	SF	$28	$22,500
4	Colored Concrete Sidewalk Edge Band	183	SF	$14	$2,600
5	Grated Inlet Slot Through Curb (1' Wide)	20	LF	$30	$600
6	Curb Ramp	4	EA	$3,000	$12,000
7	Driveway (15')	1	EA	$5,000	$5,000
8	Driveway (25')	1	EA	$7,000	$7,000
				Subtotal:	$91,500

N. STANISLAUS STREET TO N. GRANT STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Amenities					
1	Bike Rack (7'x6')	1	EA	$1,500	$1,500
2	Bench	6	EA	$2,500	$15,000
3	Trash Receptacle	2	EA	$1,500	$3,000
4	Recycling Receptacle	2	EA	$1,200	$2,400
5	Parking Meter Kiosk	2	EA	$10,000	$20,000
6	Street Lights	6	EA	$3,000	$18,000
7	Low Wall (12" Wide)	42	LF	$150	$6,300
8	Seating Area Wall Pilaster	9	EA	$300	$2,700
9	Tree Grate	2	EA	$1,000	$2,000
10	Fence	350	LF	$70	$24,500
11	Adjacent Building Improvements	240	LF	$200	$48,000
12	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$153,400
Planter Strip					
1	Shrubs and Ground Cover	4,000	SF	$2.5	$10,000
2	Irrigation	4,000	SF	$2	$8,000
3	Irrigation Sleeve	260	LF	$35	$9,100
4	Irrigation Pipe	670	LF	$25	$16,800
5	Irrigation Booster Pump	1	EA	$17,000	$17,000
6	Irrigation Controller	1	EA	$3,500	$3,500
7	Irrigation Meter	1	EA	$5,000	$5,000
8	Irrigation BFP	1	EA	$3,800	$3,800
9	Irrigation Gate Valve	4	EA	$300	$1,200
10	Irrigation Quick Coupler	6	EA	$200	$1,200
11	Planting Soil Import (36" depth)	4,000	SF	$3	$10,000
12	Trees	14	EA	$300	$4,200
				Subtotal:	$89,800
Stormwater Planter					
1	Water Tolerant Planting	520	SF	$6	$3,200
2	Top Soil	21	CY	$60	$1,300
3	Filtration Media	29	CY	$40	$1,200
4	Filter Fabric	520	SF	$1	$400
5	Drain Rock	21	CY	$50	$1,100
6	Perforated Underdrain	56	LF	$16	$900
7	Concrete Wall (36" high w/ rebar)	155	LF	$70	$10,900
				Subtotal:	$19,000

N. STANISLAUS STREET TO N. GRANT STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Utilities					
1	Storm Drain Pipe 12"	560	LF	$50	$28,000
2	Catch Basin	2	EA	$1,000	$2,000
3	Curb Inlet	4	EA	$1,500	$6,000
4	Storm Drain Manhole	4	EA	$5,000	$20,000
6	Core New Connection to EX MH	1	EA	$1,500	$1,500
5	Water Pipe - 2"	16	LF	$25	$400
6	Water Pipe - 6"	780	LF	$35	$27,300
7	Connection To Existing Water Pipe	2	EA	$1,500	$3,000
8	Fire Hydrant Assembly	1	EA	$3,000	$3,000
9	Gate Valve	2	EA	$1,000	$2,000
10	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
11	Joint Trench	400	LF	$100	$40,000
12	Electrical Circuit	400	LF	$2	$800
13	Electrical Conduit	400	LF	$10	$4,000
14	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$190,800
				Total:	**$1,497,900**
				Mobilization:	$230,000
				General Conditions:	$150,000
				Contingency:	20%
				Sheet Total:	**$2,177,480**

N. GRANT STREET TO N. AURORA STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Demolition					
1	Demo Asphalt Concrete	36,420	SF	$1	$36,500
2	Demo Concrete Pavement	6,900	SF	$3	$20,700
3	Demo Curb and Gutter	820	LF	$3	$2,500
4	Demo Curb Ramp	5	EA	$300	$1,500
5	Demo Driveway	6	EA	$2,500	$15,000
6	Remove Storm Drain Pipe	166	LF	$25	$4,200
7	Demo Storm Drain Inlet	4	EA	$5,000	$20,000
8	Remove Water Pipe	344	LF	$11	$3,800
9	Adust Manhole Rim to Finished Grade	7	EA	$500	$3,500
10	Remove Tree	2	EA	$750	$1,500
11	Demo Planter	670	SF	$3	$2,100
12	Underground Overhead Electric	560	LF	$100	$56,000
13	Remove Street Light	3	EA	$1,700	$5,100
14	Remove Sign and Pole	6	EA	$200	$1,200
15	Remove Fence	310	LF	$20	$6,200
16	Remove Parking Meter	8	EA	$100	$800
17	Demolition Contingency	1	LS	$36,120	$36,200
				Subtotal:	$216,800
Hardscape					
1	Roadway Asphalt Pavement	28,400	SF	$5	$142,000
2	Brick Pavers over AB	3,280	SF	$25	$82,000
3	Colored Concrete Crosswalk Edge Band	500	LF	$21	$10,500
4	Colored Concrete Intersecton Pavement	1,800	SF	$14	$25,200
5	Curb and Gutter	725	LF	$35	$25,400
6	Survey Monument	1	EA	$2,500	$2,500
7	Signage and Striping	1	LS	$4,500	$4,500
				Subtotal:	$292,100
Median					
1	Median Curb	680	SF	$25	$17,000
2	Median Concrete (1.5' Band Behind Curb)	630	SF	$5	$3,200
				Subtotal:	$20,200
Sidewalks					
1	Sidewalk Concrete	5,630	SF	$5	$28,200
2	Brick Pavers Over Concrete	822	SF	$28	$23,100
3	Colored Concrete Sidewalk Edge Band	180	SF	$14	$2,600
4	Curb Ramp	6	EA	$3,000	$18,000
5	Driveway (15')	1	EA	$5,000	$5,000
6	Driveway (20')	1	EA	$6,000	$6,000
7	Driveway (25')	2	EA	$7,000	$14,000
				Subtotal:	$96,900

N. GRANT STREET TO N. AURORA STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Amenities					
1	Parking Meter Kiosk	2	EA	$10,000	$20,000
2	Bench	9	EA	$2,500	$22,500
3	Trash Receptacle	3	EA	$1,500	$4,500
4	Recycling Receptacle	3	EA	$1,200	$3,600
5	Street Lights	6	EA	$3,000	$18,000
6	Low Wall (12" Wide)	54	LF	$150	$8,100
7	Seating Area Wall Pilaster	12	EA	$300	$3,600
8	Tree Grate	3	EA	$1,000	$3,000
9	Fence	370	LF	$70	$25,900
10	Vehicle Gate	1	EA	$2,100	$2,100
11	Adjacent Building Improvements	220	LF	$200	$44,000
12	Gateway Monument	2	EA	$15,000	$30,000
13	Public Art	2	EA	$5,000	$10,000
				Subtotal:	$195,300
Planter Strip					
1	Shrubs and Ground Cover	2,500	SF	$3	$6,300
2	Irrigation	2,500	SF	$2	$5,000
3	Irrigation Sleeve	310	LF	$35	$10,900
4	Irrigation Pipe	670	LF	$25	$16,800
5	Irrigation Gate Valve	3	EA	$300	$900
6	Irrigation Quick Coupler	6	EA	$200	$1,200
7	Planting Soil Import (36" depth)	2,500	SF	$3	$6,300
8	Trees	14	EA	$300	$4,200
				Subtotal:	$51,600
Stormwater Planter					
1	Water Tolerant Planting	420	SF	$6	$2,600
2	Top Soil	17	CY	$60	$1,100
3	Filtration Media	24	CY	$40	$1,000
4	Filter Fabric	420	SF	$1	$300
5	Drain Rock	17	CY	$50	$900
6	Perforated Underdrain	60	LF	$16	$1,000
7	Concrete Wall (36" high w/ rebar)	155	LF	$70	$10,900
				Subtotal:	$17,800

N. GRANT STREET TO N. AURORA STREET

N. California St to N. Aurora St.

No.	Description	Quantity	Units	Unit Cost	Cost
Utilities					
1	Storm Drain Pipe 12"	230	LF	$50	$11,500
2	Catch Basin	2	EA	$1,000	$2,000
3	Curb Inlet	4	EA	$1,500	$6,000
4	Storm Drain Manhole	1	EA	$5,000	$5,000
5	Core New Connection to EX MH	2	EA	$1,500	$3,000
6	Water Pipe - 6"	340	LF	$30	$10,200
7	Connection To Existing Water Pipe	1	EA	$1,500	$1,500
8	Gate Valve	1	EA	$1,000	$1,000
9	Special Electrical (outlets, uplights, etc.)	4	EA	$700	$2,800
10	Joint Trench	440	LF	$100	$44,000
11	Electrical Circuit	540	LF	$2	$1,100
12	Electrical Conduit	540	LF	$10	$5,400
13	Utility Conflict Resolution	1	LS	$50,000	$50,000
				Subtotal:	$143,500

Total:	**$1,034,200**
Mobilization:	$160,000
General Conditions:	$110,000
Contingency:	20%
Sheet Total:	**$1,511,040**

APPENDIX E:
Economic Planning Systems Analysis

MINER AVENUE CORRIDOR—CORRIDOR ANALYSIS AND FINDINGS

Introduction

The Miner Avenue Corridor is well-positioned to become a significant transit-oriented corridor (TOC) in the City of Stockton (City) and the greater Central Valley region. Although the Corridor is faced with depressed real estate and socioeconomic conditions, it benefits from a variety of advantages as a result of its location, urban form, and Corridor-based rail station. The implementation of the Miner Avenue Streetscape Master Plan (Master Plan) could leverage these strengths and serve as a catalyst for broader Corridor investment.

Miner Avenue is a wide boulevard that once provided a primary entryway into the historic downtown. The Corridor is defined by Weber Point to the west and the Cabral Station to the east, which is served by the Altamont Commuter Express (ACE). The Cabral Station is also a prime location for more intense, high-density Transit Oriented Development (TOD). Moreover, the Corridor is adjacent to the City's downtown and waterfront and surrounded by historic homes in fair condition. In addition, the Corridor features an existing street-grid pattern with building envelopes that support higher density development.

Past and present efforts by the City have also helped set the stage for TOD and TOC type development in the Corridor area. The City has implemented an array of civic improvements to the downtown and waterfront area that extend into the west end of the Corridor. The City is also in the process of creating a multi-use downtown district, expanding night time entertainment and cultural uses in the downtown area. These efforts have helped create land use and market conditions that would be favorable for redevelopment of the Corridor into a TOD hub.

Future plans for the Corridor also envision it as a key transportation center. The San Joaquin Regional Rail Commission has undertaken Phases I and II of a neighborhood revitalization and circulation plan. Proposed improvements to the Cabral Station include creating a civic space around the station area and neighborhood revitalization efforts to support TOD. In addition, the Cabral Station is proposed to become part of the State's high speed rail network, extending from Sacramento to San Diego.

Currently, though, the Corridor reflects disinvestment as evidenced by commercial vacancies, vacant parcels, and low lease rates and land values. In addition, the area struggles from a lack of identity, as it does not have key destinations or nodes of activity in the center of the Corridor. Public improvements would help target real estate disinvestment that has affected the center of the Corridor. These improvements could also help create a collective identity for the Corridor. As an area that is proximate to but unique from the downtown, the Corridor could become redefined as a new district and TOD gateway into the City and greater Central Valley.

Importantly, in light of the City's and State's efforts to increase other modes of transport, this project has the potential to transform this "car centric" boulevard into an attractive complete street that will encourage people to walk, bike, and use transit. These features will, in turn, create a synergy that will help reactivate adjacent store fronts and vacant properties.

The following pages discuss the Corridor's economic position and prospects for revitalization. The first section discusses the Corridor's real estate and socio-economic conditions. The second section discusses criteria and recommendations for Corridor Revitalization.

Current Conditions along the Corridor

Real Estate Conditions

Conditions along the Corridor vary by block. Private investment and pedestrian activity are concentrated in and around the multiplex area near Weber Point at the Corridor's west end. The value and intensity of economic uses appears to be generally stable between the Weber Point and North Sutter Street intersections. From North Sutter Street to the Cabral Station, economic value appears to erode. This segment is comprised of car lots, vacant sites, and underutilized buildings.

The Corridor has low lease rates & land values relative to other areas in the City. The typical lease rate for commercial space along Miner Corridor and the immediate surroundings is $0.40 to $0.60 per sq. ft. per month. Nearby, downtown space performs much stronger (over $1.50 per sq. ft.). The evidence of public and private investment is particularly strong south of the Corridor, which features well-maintained structures such as churches, retirement apartments, and State/local government buildings.

Corridor Socio-Economic Conditions

A demographic profile was prepared for households that reside near the Corridor. The profile includes information on household income, size, ethnicity, and vehicle ownership. This information provides preliminary information on potential market demand in the Corridor area.

Income Levels

The Miner Corridor area has a significant concentration of low-income households. The area within a quarter-mile of the Corridor project area is characterized by a median family household income of approximately $14,000, and 48-percent of the households are below the poverty line. In contrast, only about 17 percent of households in Stockton and 11 percent of households statewide have incomes below the poverty line. These results suggest that retail strategies in the Corridor may need to reflect a mix that includes opportunities in the lower end of price orientation.

Average Household Size

The average household size around each station is significantly smaller than the average size for Stockton as a whole. Surrounding the Corridor project area, average household sizes range from 2.28 to 2.80 persons per household. These values are much lower than the City of Stockton as a whole (3.09) or the state California (2.92). Furthermore, over half of households within a quarter-mile radius of the project area are comprised of only 1 person. The results suggest that any residential development in the Corridor should consist of smaller unit sizes to target these smaller households.

Ethnic Profile

The area around the Cabral Station is racially and ethnically diverse with significant minority populations. Just 30-percent of the population within a quarter-mile radius of the central Project area identifies as "white," while Latinos, African-Americans, and Asians represent major segments of the population. In these groups, the most common ethnicities are Mexican, Filipino, Laotian, Chinese, Vietnamese, and Hmong. Retail strategies in the Corridor should represent the spending patterns of the Corridor's diverse groups. Ethnic food markets and restaurants are two examples of retail establishments that could appeal to the Corridor's households.

Vehicle Ownership

Many households in the area do not have any vehicles. Near the Miner Avenue corridor, 53 percent of households are carless, while for the rest of the city, carless households represent approximately 12 percent. Ensuring that adequate transportation options are available for nearby residents should be a primary focus of planning efforts along the Corridor.

Miner Avenue Streetscape Master Plan Revitalization and Near-Term Recommendations

The Master Plan proposes a set of improvements that could intensify the Corridor's linkages to the downtown and serve as a catalyst for private investment in the Corridor. Moreover, it could help provide the Corridor with a greater sense of place and enhance its vitality by creating a safer and more pedestrian-friendly environment.

The types of streetscape improvements proposed by the Master Plan have been shown to enhance conditions for both business owners and residents in cities throughout the United States. Indeed, as the Complete Streets Coalition documented, "Street design that is inclusive of all modes of transportation, where appropriate, not only improves conditions for existing businesses, but also is a proven method for revitalizing an area and attracting new development." As an example, Washington, DC's Barracks Row was experiencing a steady decline of commercial activity due to uninviting sidewalks, lack of streetlights, and speeding traffic. After many design improvements, which included new patterned sidewalks, more efficient public parking, and new traffic signals, Barracks Row attracted 44 new businesses and 200 new jobs. Economic activity on this three-quarter mile strip (measured by sales, employees, and number of pedestrians) has more than tripled since the inception of the project.

Corridor Revitalization Recommendations

Three redevelopment imperatives should be considered as the Master Plan is developed and implemented. These imperatives also serve as criteria to guide the development of policy recommendations:

- **Imperative #1**—Public streetscape investments are most successful when they leverage past, present, and near-term planned private investment. Streetscape investments on the Corridor should be phased so that they complement other revitalization efforts. Along the Corridor, past, present, and near-term investments include waterfront improvements and new retail and entertainment establishments located near Weber Pointe and future plans to introduce high speed rail at the Cabral Station.

Miner Avenue Corridor
Analysis and Findings July 27, 2011

- **Imperative #2**—Concentrated retail districts are often limited to about 1,000 linear feet, and are characterized by nodes of concentrated activity linked together by neighborhood housing, parks, civic, and other uses. Public spaces in the Master Plan should be planned at areas on the Corridor that receive the most concentrated pedestrian activity and offer the greatest potential for retail expansion.

- **Imperative #3**—Retail corridors should be concentrated at highest value intersections. This imperative should guide future efforts to expand retail along the Corridor.

Implementation Recommendations

As described earlier, the Corridor offers a multitude of strengths that would help position it as a TOD hub in the City and greater Central Valley. With the addition of high speed rail, it would serve as the key Central Valley link to a broader transportation network in the State. In addition, redevelopment of the Corridor would provide denser, multi-modal housing to support the large population growth projected for the region.

Since real estate market conditions remain unstable in the City and nationwide, the timing for feasible redevelopment of the Corridor is uncertain. Market conditions will also need to improve before a precise development program can be identified. Thus, current efforts should focus on near-term actions that could help prime the area for redevelopment once the market recovers.

Land Use Recommendations

The following recommendations take the imperatives defined above and translate them into specific recommendations. They focus on land use policies and concepts that the City and/or Corridor stakeholders could use to facilitate future Corridor development.

- **Develop an identity and long-term vision for the Corridor.** The Corridor has the potential to become a new district in the City with a unique character of its own. Stakeholders should work together to develop a brand to identify with the Corridor, as well as a long-term vision for Corridor land uses. To initiate this process, the City or Downtown Stockton Alliance could organize a public meeting for residents, business owners, land owners, and other stakeholders to generate ideas about desired land uses and branding (e.g., Corridor naming).

- **Design the Master Plan to include and identify specific improvements that will provide incentives to redevelopment of adjoining properties.** Examples include oversizing the stormwater Best Management Practices (BMP) features to accommodate the runoff from adjoining properties, as well as that required for the streetscape itself.

- **Focus the first phase of Master Plan implementation on three nodes of activity along the Corridor.** These nodes would include the east and west ends, and the center of the Corridor. Currently, economic value exists at the two ends; however, the center of the Corridor is underinvested. Efforts should be concentrated on reactivating this area through unique land uses, such as live/work developments, retail-industrial (e.g., brewery or coffee roasting), or entertainment uses (e.g., restaurant, community theater). In addition, the City should encourage high quality design standards and creative adaptive reuse. Examples of adaptive reuse of office and industrial-retail buildings are provided below.

- **Leverage publicly owned parcels.** The City and State owns a variety of parcels along the Corridor. The City could consider redeveloping a portion of these parcels as parks to create green spaces and new destinations for pedestrians on the Corridor.

- **Prepare a precise road plan for the corridor that provides parcel-level plans for improvements.** A City road plan, or Precise Road Plan, would provide a more detailed plan for Corridor development that considers parcel-specific conditions, and will ensure consistent implementation of the streetscape design.

- **Ensure flexibility of Corridor zoning.** The City is considering a zoning overlay to ensure that City land use policies will allow for flexible redevelopment along the Corridor. The City should consider other flexible options, including form-based codes. Land use policies for the Corridor should allow a variety of land use types, including local-serving uses (coffee shops, cleaners, and small scale shopping), community uses (restaurant, retail, retail-industrial), and larger regional uses (offices, entertainment venues). Recommended building envelopes to support these uses would consist of two-to-three story structures with ground floor space that is suitable for a variety of uses, including live/work, retail, and flex industrial uses.

Development Strategies

The recommendations below are intended to provide the City with strategies to spur private TOD investment along the Corridor:

- **Facilitate Urban Land Institute (ULI) National Panel visit.** The City should facilitate a visit by a ULI National Panel to generate ideas for TOD investment along the Corridor. As part of this effort, the City would provide the National Panel with economic analysis and land use information. The industry expertise and third party recommendations from the National Panel would help inform the City as it develops strategies for the area. This effort could include the larger downtown, but the emphasis on the Miner Ave corridor should continue to be an essential part of the project.

- **Partner with the Downtown Stockton Alliance.** The Downtown Stockton Alliance (DSA) is interested in and committed to participating in the outcomes of the Miner Avenue Streetscape program. An important partner is communicating with property owners along the corridor, and expanding their service boundary to include properties on both sides of the corridor. This expansion would not only provide an enhanced level of services to businesses

along the corridor, they could also participate in the maintenance of streetscape improvements.

- **Identify funding sources for streetscape capital and operating costs.** A variety of funding sources have been identified to help fund the costs of the Master Plan. These sources include High Speed Rail Bond Money for station area improvements, Measure K funding from the San Joaquin Council of Governments (SJCOG), as well as grant funding through Municipal Utility District Best Management Practices (BMP) funds.

  Operating costs could be funding through assessments administered by a Landscaping and Lighting District (LLD) or the DSA Business Improvement District (BID). Both could also be used in the future to fund solid waste removal and other types of cleaning services. Unlike an LLD, though, a BID can also be used to fund security services as well.

- **Conduct outreach and focus studies into the central Corridor.** The preliminary findings from the Corridor Analysis provided an initial profile of Corridor area residents. Additional market analysis and outreach would help identify future retail and business establishments that could be appropriate for the Corridor. It would be particularly helpful to survey surrounding neighborhoods to better understand the market demand and spending behavior of nearby residents.

- **Engage with land owners to promote redevelopment of the central Corridor.** The City could meet with central Corridor land owners to determine their interests and identify mutually beneficial options for property investment/redevelopment. This could include friendly land acquisition to assemble parcels into an appropriate size for redevelopment.

  Assuming that tax increment and redevelopment remain viable tools over the next decade, an owner participation agreement (OPA) could be used. An OPA is a contract between a developer, owner, and a public agency (often a redevelopment agency). The public agency would work with existing owners to create a partnership with a developer. Tax increment revenues, debt, and equity are typically leveraged to fund the project and development proceeds are allocated based on each stakeholder's share of assumed risk. (Current State legislation may prohibit the use of tax increment funding in the future.)

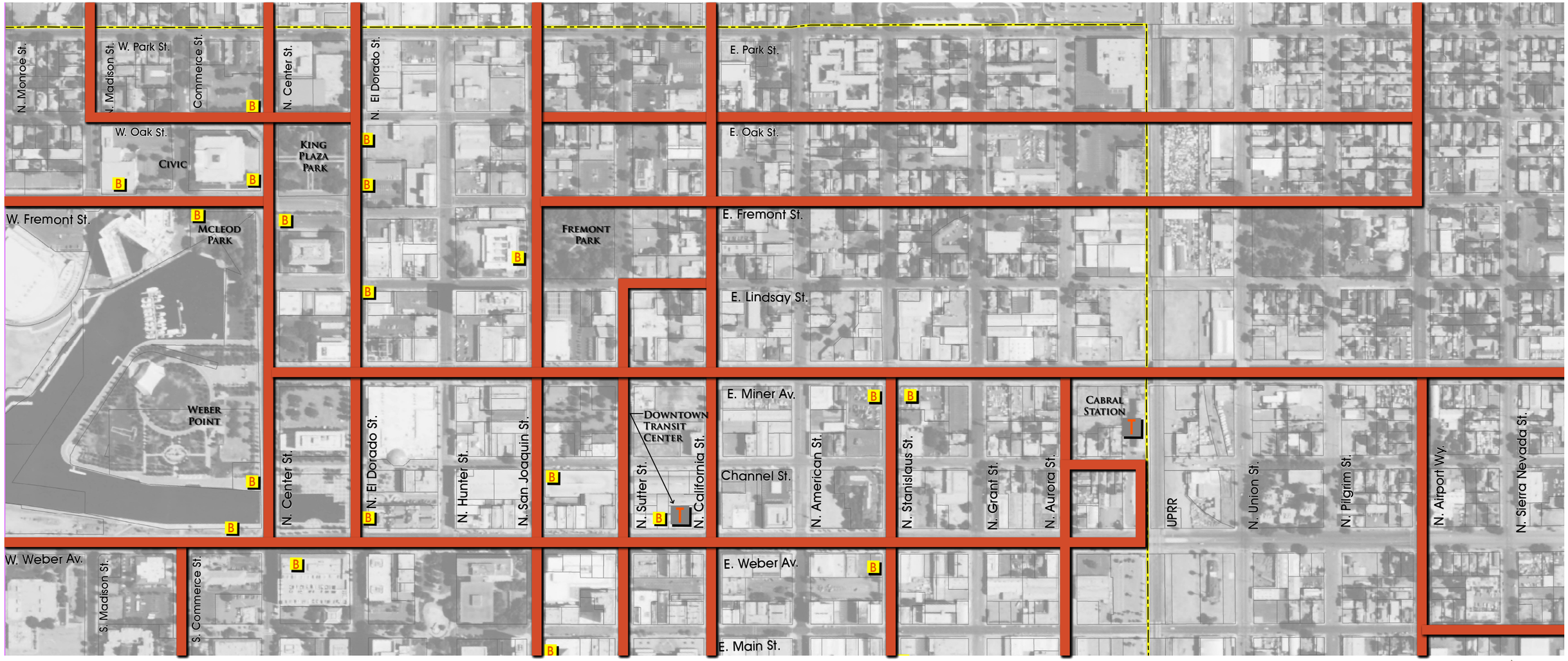
- **Implement policy recommendations by SJCOG.** The May 2011 Administrative Draft of the SJCOG Regional Smart Growth Transit-Oriented Development plan included a variety of recommendations to the City to help further promote TOD. These recommendations are listed below:

  — Continue to work with San Joaquin regional transit district and SJCOG to implement Phase II of the City's Bus Rapid Transit Master Plan.

  — Reevaluate land use designations and intensify to support ridership.

  — Evaluate industrial and commercial blocks to the east of the station area for TOD potential.

APPENDIX F:
Supporting Maps & Exhibits



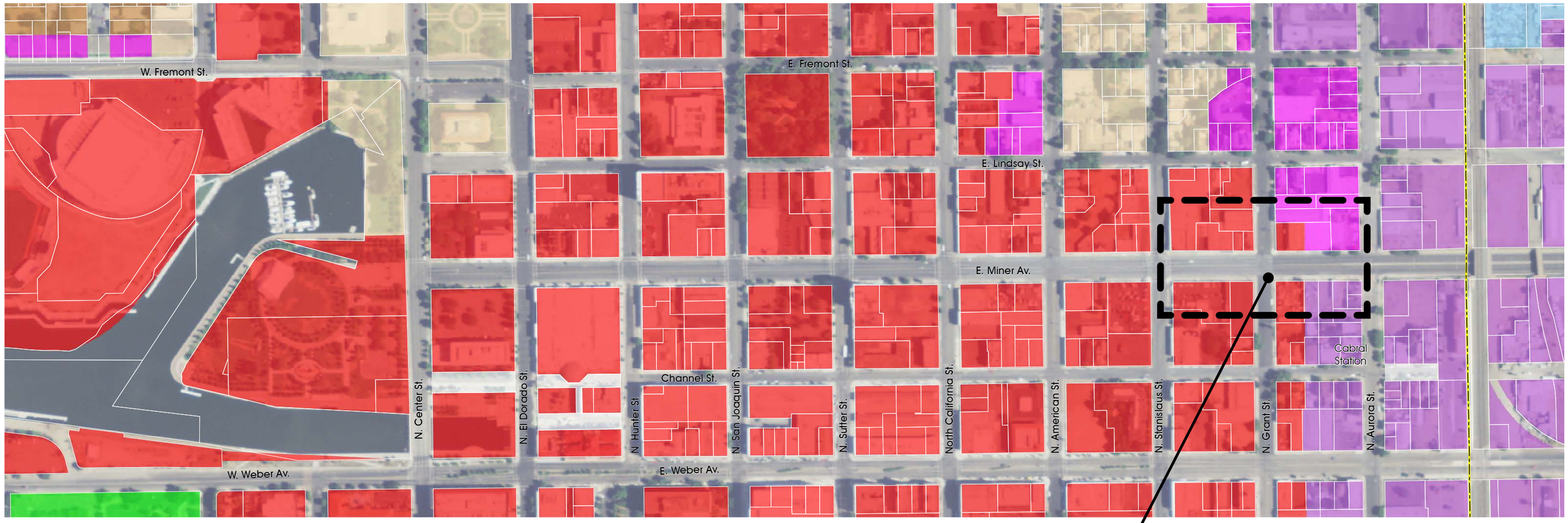
LEGEND:

- San Joaquin RTD Bus Routes
- B — San Joaquin RTD Downtown Bus Stops
- T — Transit Center & Cabral Station

N

75 0 150'

San Joaquin Regional Transit District Downtown Bus System Map



Legend

Zoning

- Commercial, Downtown
- Commercial, General
- Commercial, Neighborhood
- Commercial, Office
- Industrial, General
- Industrial, Limited
- Mixed Use
- Public Facilities
- Residential, Low Density
- Residential, Medium Density
- Residential, High Density
- Unzoned
- Midtown Redevelopment 2009

Area to be rezoned for consistency with the conceptual land use plan and Cabral Station Neighborhood Plan

Zoning Exhibit

MINER AVENUE STREETSCAPE PLAN

CITY OF STOCKTON