



El Cerrito Plaza and Del Norte Stations

Modernization Concept Plans - Final Report

December 13, 2013



In association with:



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1 Introduction

What we heard

The El Cerrito BART Stations Modernization Concept Study brought together a team of architects, planners and engineers to develop and assess design strategies for modernizing the El Cerrito Plaza and El Cerrito del Norte stations. To fully understand the needs at these stations, the consultant team met on many occasions with BART staff from Planning and Development, Maintenance and Engineering, District Architect, Customer Access, Operations, Transportation and Operations Planning and BART Police as well as staff and consultants from the City of El Cerrito Community Development, Planning and Public Works to brainstorm, receive feedback on scenarios and identify opportunities and constraints surrounding both stations.

This report should serve as a flexible framework to launch the next phase of studies and design work. Many thanks to the people who contributed to this report. Your input helped guide and shape the conceptual scenarios and made the final recommendations possible.

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Needs Assessment

Staff highlighted both obvious and less apparent needs and concerns at these stations. Because the station structures are nearly identical, many of the existing conditions and concerns are present at both. However, these stations function very differently in the community and it is important to recognize the unique characteristics of both as well as the communities they serve.

Staff identified the following issues to be addressed in the station modernization plan:

- *Public elevators need to be accessed from paid area*
- *Escalators are dripping oil and require constant maintenance*
- *Additional vertical circulation is needed*
- *Station agent booths are too small, uninsulated and do not meet current standards*
- *Station agent needs better visual surveillance of paid area*
- *Public restrooms are dingy and out dated*
- *Pigeons and pigeon droppings are a constant problem*
- *Better lighting is needed for comfort and safety*

It should be noted that there are several station improvements that are either underway or are funded through a variety of grant sources. These include the design and installation of a comprehensive wayfinding program modeled after the MTC Hub Signage program which incorporates real-time information displays. The Ohlone Greenway expansion also includes intersection improvements to increase safety and path continuity through both station sites.



Southwest view of El Cerrito Plaza Station



Southeast view of El Cerrito Plaza station and Ohlone Greenway



Southwest view of El Cerrito del Norte Station



Del Norte parking structure, Ohlone Greenway and intermodal road

In addition to staff concerns, the stations have areas of improvement for current users:

- *Wayfinding and signage is not intuitive*
- *Seating, bike racks and bus shelters block circulation routes to paid areas*
- *Abandoned and outdated equipment gives the impression the station is dirty and is in disrepair*
- *Dark, uninviting atmosphere under the guideway*
- *Lack of variation in color and materials*
- *Platform is exposed to the weather and can be cold and windy*



Existing conditions at El Cerrito Plaza and Del Norte stations.

Station Profiles

El Cerrito del Norte

The El Cerrito del Norte station is a regional transportation hub located on the Richmond line and situated one block from Interstate 80. As a regional transit hub, the El Cerrito del Norte station is served by 25 bus routes including AC Transit, Fairfield & Suisun Transit (FAST), Solano County Transit (Soltrans), Golden Gate Transit, Vallejo Transit, Napa VINE and WestCAT. The station is also located adjacent to San Pablo Avenue (SR 123), a north-south highway connecting major East Bay cities such as Richmond, El Cerrito, Albany, Berkeley, Emeryville and Oakland. A Safeway grocery store sits to the south of the site across Hill Street and adjacent to San Pablo Avenue. Additional big box retail exists on the western edge of San Pablo Avenue across the highway from the station. Average weekday exits for the El Cerrito del Norte station during FY 2013 were 8,494.

2008 El Cerrito del Norte Station Access Profile

- 64% Automobile
- 26% Transit
- 7% Walk
- 3% Bike



El Cerrito del Norte station vehicular circulation patterns

El Cerrito Plaza

The El Cerrito Plaza station is a neighborhood serving station located on the Richmond line and situated a few blocks from San Pablo Avenue. Central Avenue flanks the northern site boundary and is a feeder to Interstate 80. The El Cerrito Plaza station is served by 14 bus routes including AC Transit and BEAR Transit shuttle from UC Berkeley. The station is located adjacent to the El Cerrito Plaza shopping center and Fairmount Avenue. Average weekday exits for the El Cerrito Plaza station during FY 2013 were 4,690.

2008 El Cerrito Plaza Station Access Profile

- 58% Automobile
- 33% Walk
- 6% Bike
- 3% Transit



El Cerrito Plaza station vehicular circulation patterns

Existing Conditions

Both El Cerrito BART stations are aerial side platform stations with a separate stair, escalator, and elevator serving each side of the platform. The Ohlone Greenway, a multi-use bike and pedestrian path, runs along the eastern edge of the stations. The existing paid areas occupy approximately 3,000 square feet of the station footprints. The stations are arranged in a north-south orientation with entry to the paid areas from the north and south. The station agent booth is located at the north end of the paid area. All major utilities and a small concession space are provided within a 2,850 square foot concrete vault to the north of the paid area.

El Cerrito del Norte Site

The El Cerrito del Norte station is ringed by an intermodal road running clockwise that supports 12 transit curbs along the perimeter of the station and 7 bus bays on a transit curb to the west of the station. Parking surrounds the station on three sides with a 4-story parking garage to the west and the remainder of parking provided in surface lots. A double-wide modular office building currently houses a BART police substation to the north of the utility vault. The taxi queue is located on the northeast edge of the station adjacent to the utility vault. The Kiss-n-Ride drop-off lane runs adjacent to the parking structure. The Ohlone Greenway presents itself primarily as a paved bike path adjacent to a fence on the Del Norte station site. Cutting Boulevard to the north is restricted to bus and taxi traffic only. The City of El Cerrito is considering allowing automobile traffic on this section of street. Hill Street, to the south, is a two way street off of San Pablo Avenue which changes to a one way street mid-block at the parking structure entrance. The change to one way on Hill Street eliminates the possibility of access to the parking structure from Liberty Street (See Section 5 for an enlarged Existing Site Plan).

El Cerrito del Norte Station Area Allocation

• Station Area	53,460 sf
• Existing Paid Area	3,000 sf
• Utility Vault	2,570 sf
• Concession	275 sf

El Cerrito del Norte Site Statistics

19 bus bays
3 taxi queue spaces

1,367 structured parking spaces
880 surface parking spaces



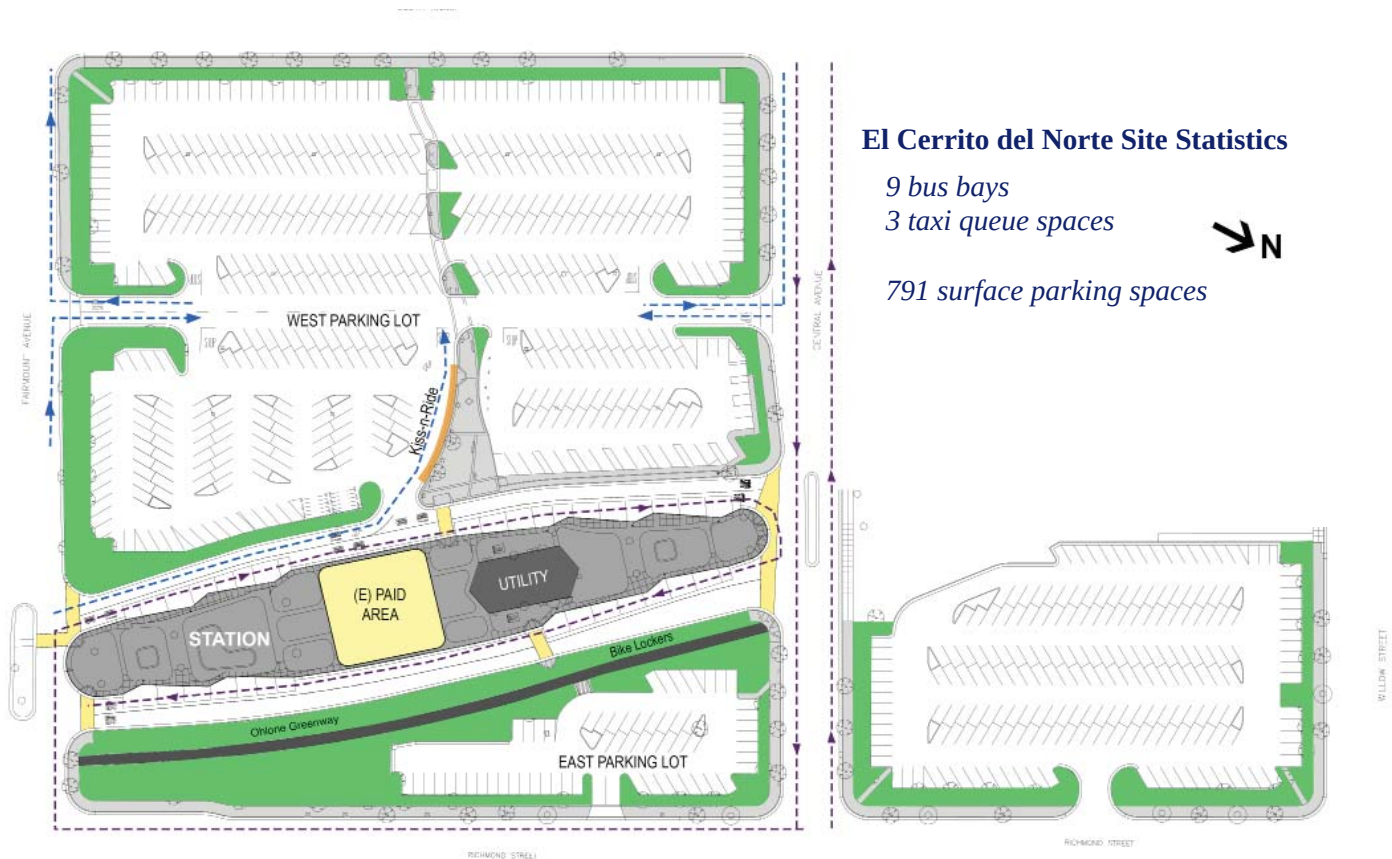
El Cerrito del Norte station existing site plan

El Cerrito Plaza Site

The El Cerrito Plaza station is also ringed by an intermodal road running clockwise that supports 9 bus bays along the perimeter of the station. Surface parking is provided for 791 vehicles in 3 lots. The largest lot is located to the west of the station and it also accommodates the Kiss-n-Ride drop-off lane along an island in the center. A second lot sits in the northeast corner of the site across Central Avenue. The east parking lot sits on land adjacent to the Ohlone Greenway and is located behind a bike locker station provided by the City of El Cerrito. This area of the station has a more “park-like” feel to it as the Ohlone Greenway widens noticeably along this section and has a number of large pine tree planted along the edge of the bike path. The taxi queue is located on the intermodal road on the east edge of the station adjacent to the paid area. A median runs down the center of Fairmount Avenue preventing automobiles from making a left-hand turn into the west parking lot. Vehicles trying to enter the Kiss-n-Ride lane must drive past the station and make a U-turn in order to enter the intermodal road from the east. Central Avenue has a break in the center median allowing left turns into the west parking lot (See Section 5 for enlarged Existing Site Plan).

El Cerrito Plaza Station Area Allocation

• Station Area	34,455 sf
• Existing Paid Area	3,000 sf
• Utility Vault	2,570 sf
• Concession	275 sf



El Cerrito del Norte station existing site plan

El Cerrito del Norte Site Statistics

9 bus bays
3 taxi queue spaces
791 surface parking spaces



2 Vision

Framing the Conceptual Scenarios

This study presents conceptual plans to modernize the El Cerrito Plaza and El Cerrito del Norte stations to meet current and future ridership needs. It considers systems upgrades, aesthetics enhancements, site improvements and future transit-oriented development (TOD). In planning a vision for BART that encompasses the next 40 years and reflects BART's Strategic Plan, the study includes the importance of how to improve the passenger experience, enhance the BART employee experience, create and maintain sustainable systems, and connect with the surrounding community.

While these conceptual scenarios have been loosely framed as near-term, mid-term and long-term projects, an attempt has been made to group elements so they can be rearranged and repackaged as required and as funding allows. This approach also acknowledges that certain project elements must be grouped together for safety and security reasons or to accommodate capacity increases. The cost estimates in Appendix A also reflect this “kit of parts” approach to allow flexibility for budgeting and project prioritization. It is important to note that this study provides a high-level, conceptual framework for considering approaches to modernizing the stations and should be used as an outline for identifying which elements should be studied in more detail and where conversations and coordination should begin.

Architectural Assets

The two BART stations in El Cerrito are fine examples of Brutalist architecture and should be considered assets in the BART station portfolio. Brutalist architecture is a style of architecture that gained prominence from the 1950's to the mid-1970's as a branch of the Modernist architectural movement and was associated with futuristic and utopian ideology. The strong, concrete structures create a striking architecture that expresses the composition of its programmatic elements such as vertical transportation, stairs, mechanical spaces and platform waiting areas. The concrete fins on the exterior facades are artfully arranged and reflect a hierarchy of form, space and order. A pair of larger fins frame picture windows that face platform waiting areas while the smaller dividers are spaced closer together when adjacent to escalators and elevators. This visual compression and release encourages the viewer to look out the larger windows toward the exterior views and move quickly through the areas where there is less daylight. The buildings were built with a “natural” concrete finish that captures the impressions of the construction formwork while some of the vertical elements were articulated with angular ribbing. Mosaic tile artwork brings color and life to the stairwells and directs passengers from the paid area up to the platform. On



Southwest view of El Cerrito del Norte Station



Southwest view of El Cerrito Plaza Station

El Cerrito BART Stations Modernization Concept Study

Final Report

the platform level, the regular structural bays convey a sense of motion when one looks down the guideway, while the exterior column and beam structures frame the surrounding views. The elevated platforms give riders the opportunity to take in the natural surroundings. The Plaza Station, in particular, frames views of Mount Tamalpais, the Golden Gate Bridge and Albany Hill to the west. The Del Norte Station frames views of the Berkeley Hills to the east and Mount Tamalpais and the surrounding community to the west.



Rhythmic motif of vertical fins, mosaic tile artwork, structure framing view of surrounding hills.



Repetitive, concrete structure creates hierarchy of form, space and order.

Vernon De Mars, Architect

Both El Cerrito BART stations were designed by the firm of De Mars and Wells in 1969. Vernon De Mars was a significant contributor to the design and planning profession in the Bay Area. De Mars began his architectural career as District Architect for the Farm Security Administration (FSA) in San Francisco and made lasting contributions to the field of planning and low-cost housing. As the designer for Easter Hill Village in Richmond, California, he was one of the first architects to propose socially conscious, low-income housing planned around gardens and cul-de-sacs instead of high-rise building blocks. De Mars joined the faculty at UC Berkeley in 1953 and was Chair of the Department from 1959-1962. Major projects accomplished during De Mars' tenure include San Francisco's Golden Gateway Redevelopment; the University of California at Berkeley's Student Center and Zellerbach Hall and the College of Environmental Design's Wurster Hall. He championed the rehabilitation of the San Francisco Ferry Building and expansion of Embarcadero Plaza after the freeway was demolished in 1991. DeMars was a Fellow of the American Institute of Architects and received a Lifetime Achievement Award in 2003.



Architectural Approach

The rigor and simple elegance of the original concrete structure is representative of its era and exudes a timeless strength and durability. In fact, after 40 years of service, the concrete stations show few signs of wear - no cracking, very little leaching of salts and minerals and no evidence the steel reinforcement is corroding and causing the concrete to pop off. It is clear from the overall look of the stations that the concrete mix was high-quality and the structures were well-constructed.

The station architecture, however, requires key changes to make it more aesthetically pleasing and accessible to the public. The recommended approach for refurbishing the stations focuses on preserving the original character of the structures while enhancing their architectural expression. New construction that is light, airy and transparent will help lighten the look and feel of the existing buildings and complement the original architecture. It is important to consider how a new design could make the stations and station areas more welcoming and appealing to the public without obscuring the positive aspects of the original design.

These positive aspects include:

- *Simple, modern massing*
- *Details that refer to a hierarchy of form, space and order*
- *Rhythmic, repeated motif of vertical fins*
- *Durable, timeless material*
- *Colorful, high quality artwork along stairs and escalators*
- *Platform walls that frame spectacular views*

Lighting

Lighting is a key part of the modernization concept. The existing light levels both during the day and in the evening are perceived as inadequate, contributing to a gloomy atmosphere and a feeling of insecurity. Good lighting design contributes to the comfort of users, their perception of safety and wayfinding. A well-lit station area can also help create a sense of place, literally highlighting the station as a destination. High efficacy and low maintenance light sources such as LEDs should be considered with high color rendering index. LED lighting has the added advantage of being highly directional, making it possible to prevent spill light in the surrounding neighborhood and reduce light pollution in the night sky. All lighting solutions should take into consideration bird control and maintenance access, with hanging or sconce-like fixtures that create ledges to be avoided.

We propose creative, up-to-date lighting solutions for the following locations:

- *LED panels underneath guideway areas - both paid and unpaid*
- *Architectural lighting at platform level*
- *Pedestrian scale lighting around bike racks and bicycle lockers*
- *Selective uplighting for a perception of brightness*
- *Accent lighting at TVM and Fare Gate locations*
- *Street and pedestrian-scale lighting along access routes to the station*
- *Accent pedestrian lighting at key 'branding' locations*

Ceilings

We recommend installing metal panel ceilings into soffits in the paid and waiting areas. This will help give a cleaner look to the underside of the guideway by hiding the exposed conduits and removing the bird netting that is currently installed. Metal panels typically have a high content of recycled aluminum in them and can significantly contribute to BART's sustainability initiatives. Metal ceilings also come in a range of colors and finishes and could incorporate a wood look in waiting areas and spaces where a warmer look and feel might be preferred. The new ceiling should be integrated with the LED lighting system and be a light color with a high-reflectance coating. It should be easy to clean and maintain and help to deter bird nesting and roosting.

A successful ceiling system should:

- *Reflect artificial and natural light*
- *Provide direct and indirect lighting for a welcoming, airy atmosphere*
- *Provide acoustic absorption to control reverberation and echo*
- *Deter birds from roosting and nesting*

Platform weather protection and radiant heat for improved passenger comfort

For users of these elevated platforms, increased protection from wind, rain and sun would greatly enhance the daily commute. Currently, the central portion of the platform is protected by a metal roof and glass windows. Extending the canopy approximately one structural bay and installing more glazing within the concrete frame would provide additional protection for riders. A glazed window system that uses the existing concrete framework as a base would extend the protected zone of the platform without changing the architectural expression of the existing station. Lighting and signage can be upgraded and integrated with these new elements. Any intervention along the back walls of the platform should not obstruct the spectacular views that can be enjoyed from both the El Cerrito Plaza and El Cerrito Del Norte Stations.

It is also recommended that BART consider installing radiant heat panels along the low walls and under seating in the central platform area and underneath the canopy. In late fall and throughout winter, the platform level can be dark, damp and very cold particularly in the early morning and evening hours. Simple metal panels warmed by electric wires could be controlled by thermostat to turn on when the temperature is below 50° F and turned off when the temperature rises above 50° F.



Site lighting, station lighting and metal ceiling LED lighting systems.

Opportunities for Public Art

Public art can bring multi-faceted benefits to station users, the surrounding community and other stakeholders. The ability of large- or small-scale artistic interventions to bring delight and a sense of identity is well understood. Public art can also be used to enhance the sense of security, wayfinding and orientation in a transportation node by improving the quality of the physical environment, creating a local cultural identity and increasing a sense of human presence within transient spaces. The following are locations where public art could most effectively help achieve the goals of the modernization effort.

Under Guideway

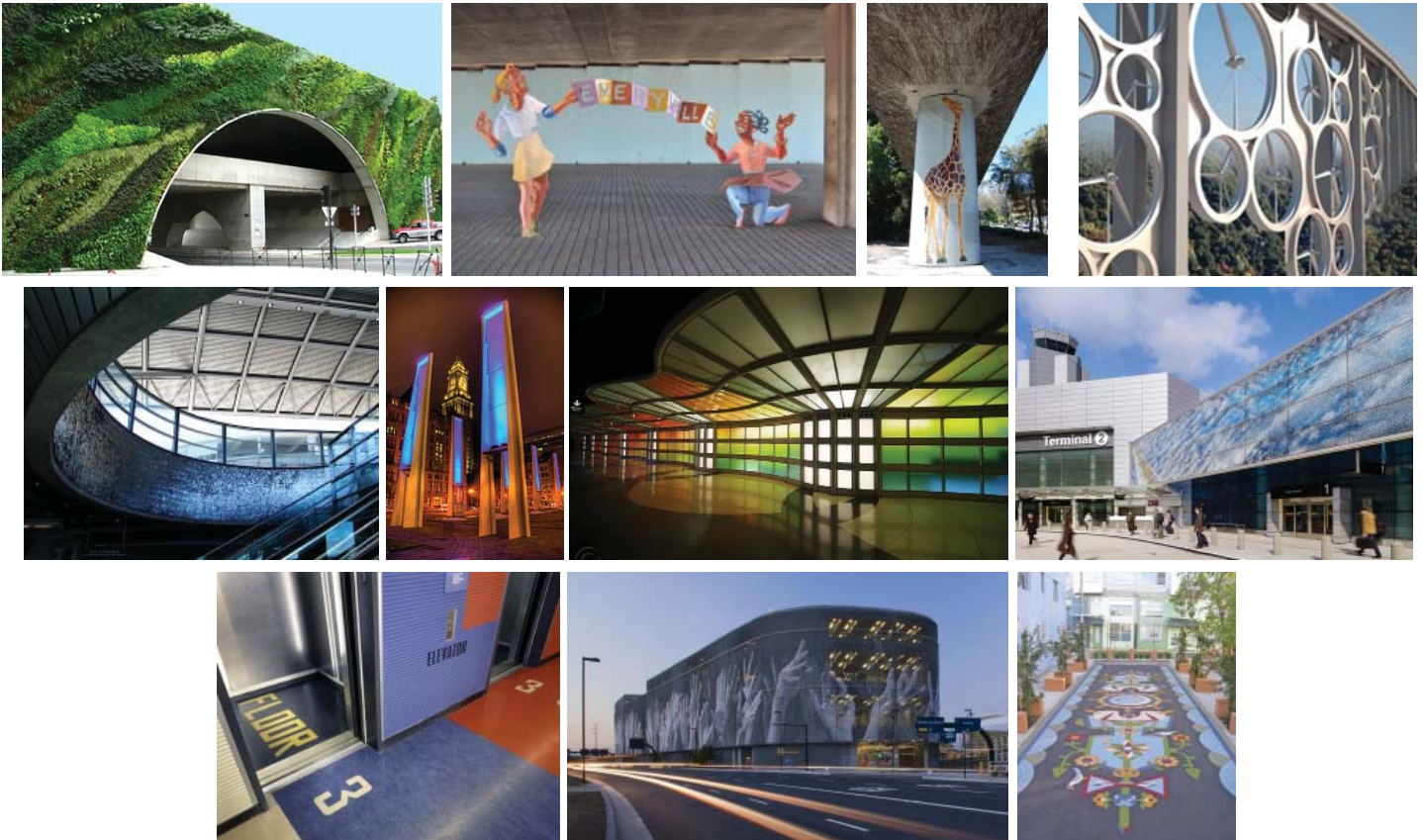
Under guideway installations can range from the simple to complex, but all help turn the undesirable ‘underpass’ zone into a memorable, welcoming, or interesting place. An artistic intervention as simple as a column-based mural along the ends of the concourse could add aesthetic value and create local identity.

Gateway / Identity

Relevantly themed, architecturally scaled artwork placed at key locations can become a highly visible gateway or branding element for the station. Artwork may be stand-alone sculptures, or might be integrated with canopies, signage or other functional elements. When well lit, they can stand as beacons and placemakers for the station both day and night.

Circulation

Both stations have much loved, high-quality mosaic tile artworks along the stairs and escalators. They are experienced by passengers in a very immediate and intimate way as they enter or leave the platform level. In a similar way, color and artwork can help highlight new circulation elements such as escalators and elevators, making them easier to find and fun to ride. Colored asphalt, stained concrete, and pavers can help bring order and coherence to the station area as well as provide community references. Visual and performing arts programs create opportunities to connect with the community and identify the stations as community assets. Making the station a regular destination for the community helps the station extend its reach beyond transit convenience and contributes to creating a true sense of belonging and place.



Examples of large- and small-scale public art.

3 Project Goals

In order to evaluate and prioritize concepts to modernize the El Cerrito BART stations, a framework and criteria for making decisions are needed.

Modernization strategies for the proposed concepts revolve around six primary goals:

- *Improve the passenger experience*
- *Highlight sustainability*
- *Improve station access*
- *Engage the surrounding community*
- *Improve the employee experience*
- *Maintain options for future development*

Improve the Passenger Experience

Delivering a positive customer experience and meeting the needs of travelers is critical to increasing ridership at the El Cerrito BART stations. Currently it is difficult to find the entries and exits to the station and a challenge to navigate to and through the paid areas. To enter the paid areas, pedestrians and cyclists must cross paths with buses and automobiles. Commuters who bike to the station worry about having their bikes stolen. Passengers with long commutes have limited access to restrooms which are sometimes locked during commute hours.

While developing concepts for modernizing the stations, we looked at strategies to address the following:

- *Improve station access*
- *Improve safety and security*
- *Increase and improve the quality of lighting*
- *Improve passenger waiting areas*
- *Increase vertical transportation elements*

Any station modernization plan should incorporate Universal Design principles into the planning of station improvements. Universal Design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. The El Cerrito Plaza Station is located near a California Department of Rehabilitation Center for the Blind and, at a minimum, the site access should be evaluated with attention paid to removing physical barriers. Where appropriate, crosswalks could be elevated to minimize the number of times pedestrians are required to step down from a curb and into vehicular traffic. Raised crosswalks could also help reduce vehicle speeds in pedestrian zones near the paid area.



Whimsical, engaging and durable site furnishings.

Raised crosswalk & Universal Design considerations.

Highlight Sustainability

Sustainability is a core value presented in the 2008 BART Strategic Plan with a focus on techniques and business practices that improve operations and enhance quality of life for Bay Area residents. Sustainable design concepts should be evaluated based upon their environmental impact, cost effectiveness and impact on the passenger experience. As part of the modernization program, the immediate station area and its surroundings can serve as a highly visible reminder of BART's commitment to reducing greenhouse gas emissions, conserving resources and being a good neighbor.

Photovoltaic (PV) cells, LED lighting, energy dashboards, composting and recycling, rain gardens and bioswales for stormwater treatment are highly effective, low-cost ways of visibly demonstrating BART's commitment to reducing greenhouse gas emissions and improving the quality of life for local residents. Site maintenance is also an expression of ownership and pride. A well-maintained property conveys a positive image to the community, can help reduce crime and creates a welcoming and friendly environment.

Bioswales are landscape elements designed to remove silt and pollution from surface runoff water. The water's flow path, along with a wide and shallow ditch, is designed to maximize the time water spends in the swale, which aids the trapping of pollutants and silt. A common application is around parking lots, where substantial automotive pollution is collected by the paving and then flushed by rain. The bioswale, or other type of biofilter, wraps around the parking lot and treats the runoff before releasing it to the watershed or storm sewer.

In 2009, the California Regional Water Quality Control Board for the San Francisco Bay Region adopted the Municipal Regional Permit (MRP) which governs discharge from municipal storm drains, including those in Contra Costa County. Provision C.3 of the MRP requires municipalities to condition development approvals for new and redevelopment projects with incorporation of specified stormwater controls in order to minimize the area of impervious surfaces and stormwater pollutants, and to create areas within the landscape into which stormwater runoff can infiltrate the underlying soil or be captured and treated using bioretention.



Bioswale, rooftop photovoltaic cell installation, "smart" recycle bins which send a message letting staff know when they need to be emptied.

Sustainable Design strategies appropriate for a Balanced Intermodal Elevated Station could include:

- *Water efficient fixtures in restrooms and janitor sinks*
- *LED fixtures, light timers, daylight sensors and summer / winter reset*
- *Photovoltaic (PV) cells on platform roofs to power station lighting*
- *Photovoltaic (PV) cells on parking structure roofs to power lighting*
- *Energy dashboard showing how much power is being produced by PV array*
- *Variable speed escalators with motion sensors*
- *Eco-friendly elevators and escalators*
- *Bioswales and rain gardens to treat stormwater and reduce heat island effect*
- *Recycling and composting*
- *Ceilings, furniture and site furnishings with recycled content*

Aligning with the goals of BART Sustainability Report, the design team recommends strategies that focus on:

- *Energy & Water*
- *Site & Materials*
- *Experience & Accessibility*
- *Maintenance & Monitoring*

Improve Station Access

Improving access to and from BART stations is critical to improving the passenger experience, meeting ridership goals and serving customer needs. The El Cerrito stations were designed and built during an era in which the car was the primary mode of transportation. The configuration of site elements focuses on automotive circulation, bus routes and car parking with access by pedestrians and cyclists an afterthought. This study begins to realign the organization of vehicle circulation, pedestrian and bicycle paths with BART's Access Hierarchy adopted by the BART Board in 2003. The hierarchy helps resolve competing demands for funding and space and emphasizes low-cost, high-capacity modes that produce the highest ridership and revenue for the least cost.

The Access Hierarchy in order of priority is:

- *Walking*
- *Transit*
- *Bicycle*
- *Pick-up / Drop-off*
- *Vehicle Parking*

When one approaches either of the El Cerrito stations it is very difficult to visually identify the entries and programmatic elements such as parking, passenger pick-up and drop-off and transit connections. The majority of signs available tell passengers where not to go, but very few actually direct them to the parking and paid areas they want to find. Until travelers are familiar with the stations, they tend to drive around in circles trying to navigate one way streets and locate the parking and pick-up and drop-off areas.

A station that is well-lit, well-maintained and has clearly identified transitions from public space to paid area will encourage more pedestrian and bicycle traffic. Passengers who feel safe and secure when approaching a station will be more inclined to use the station during off-hours and on weekends. Employing Crime Prevention Through Environmental Design (CPTED) strategies will help the stations feel safer, reduce crime and encourage local residents to become invested in the station as a positive part of their community. Crime Prevention Through Environmental Design (CPTED) is the design, maintenance and use of the built environment in order to enhance quality of life and reduce both the incidence and fear of crime.

CPTED involves the balanced application of three principles: Natural Surveillance, Territoriality, Access Control.

Natural surveillance can be achieved through design and maintenance that allows people to engage in their normal activities and to easily observe the space around them, as well as eliminating hiding places for people engaged in criminal activity. Natural surveillance is generally achieved by the use of appropriate lighting, low or see-through fencing or landscaping, the removal of areas that offer concealment and the placement of windows, doors, and walkways to provide easy observation of surrounding areas by responsible users.

Territoriality means providing clear designation between public, private, and semi-private areas and makes it easier for people to understand, and participate in, an area's intended use. Territoriality communicates a sense of active "ownership" of an area and can discourage the perception that illegal acts may be committed in the area without notice or consequences. The use of see-through screening, low fencing, gates, signage, different pavement textures, or other landscaping elements that visually show the transition between areas intended for different uses are examples of the principle of territoriality.

Access control is a concept directed primarily at decreasing criminal accessibility, especially into areas where a person with criminal intent would not easily be seen by others. Examples of access control would include a highly visible gate or entry way through which all users of a property must enter, or the appropriate use of signage, door and window locks or fencing to discourage unwanted access into private space or into dark or unmonitored areas.

Engage the Surrounding Community

A transit station can be more than just a place to catch a train or bus. It can become a site for community interaction, a facility that conveys a sense of place and can provide a unique opportunity for people to come together. When a station becomes involved in the activities of the surrounding community, it reinforces the station's central role as an organizer for community living.

El Cerrito Plaza station is a neighborhood-serving station located in the heart of El Cerrito's theater district and adjacent to the El Cerrito Plaza shopping center. Extension and connection to the surrounding community will enhance the neighborhood and help ensure the commercial viability of the district. Reinforcing the connection to the Ohlone Greenway can help increase pedestrian and bicycle access to the station and help increase ridership without increasing the number of cars.

The Del Norte station is a regional transit hub and draws riders, by bus and car, from communities east of the City and from Marin and Solano counties. The City reports that as many as 500 buses circulate in and out of the station on any given week day. San Pablo Avenue is a strong commercial corridor primarily oriented to vehicular traffic. As a regional hub, the Del Norte Station is well-positioned to be a central provider of information about transit services, community activities and regional destinations. The Del Norte Station also sits adjacent to the Ohlone Greenway and can serve as a connector between stations and a supporter of recreation in the area.



Well-lit parking garage, Millenium Park bike station, and a safe, friendly streetscape at night.

Approaches for engaging the community include:

- *Commission public art or a rotating art program*
- *Enhance bicycle facilities, programs and amenities adjacent to the Ohlone Greenway*
- *Provide public gathering areas along the Greenway*
- *Host Farmer's Markets, off-grid food trucks, holiday events and bazaars and outdoor concerts*



Bay Area Bike Share, weekly Farmer's Market, off-grid food truck event.

Improve the Employee Experience

It can be a challenge for employees to provide excellent customer service even in the best environment. It can be even harder when you are isolated, uncomfortable and working with outdated equipment. Employees spend a large portion of their lives at work each day. Providing a healthy and sustainable work environment helps to promote productivity and create a culture of employees that value the quality of their surroundings. Boosted employee satisfaction and performance leads to decreased employee turnover, higher long-term productivity and, in turn, increased customer satisfaction.

The following modifications to improve the station work environment include:

- *Upgrade or replace Station Agent Booth*
- *Upgrade staff restrooms*
- *Improve mechanical, HVAC and communications systems*
- *Improve visibility and sight lines across the paid area and public spaces*
- *Increase the quality of lighting*
- *Enhance connectivity with BART police*

Maintain Options for Future Development

A major asset in BART's portfolio is its land ownership. The El Cerrito Plaza and El Cerrito del Norte BART stations both have a significant amount of undeveloped land surrounding the stations that is currently being used for surface parking. The approaches to reconfiguring the sites take into consideration options for future expansion. This could be a future Transit Oriented Development (TOD), space for new structured parking, or long-term land leases for commercial or retail services. In response to this goal, the site strategies intentionally refrain from encroaching onto large parcels and attempt to consolidate separate or bifurcated pieces into larger footprints.

4 Conceptual Scenarios

Recommended Scenarios

The following recommended conceptual scenarios are designed to provide a framework for identifying individual items and modifications that can be made to enhance the current conditions within the stations. They also serve as an opportunity to begin to understand the scope and scale of project costs. The proposed concepts are not to be viewed as rigid ideas and should be seen more as a “kit-of-parts” that can be shuffled around depending on planning opportunities and funding sources.

The recommended scenarios have been configured under the following headings:

- *Scenario 1 - Maintenance and Building System Upgrades*
- *Scenario 2 - Transforming the Passenger Experience*
- *Scenario 2A - Fire Egress Improvements*
- *Scenario 3 - Community Placemaking*

Scenario 1 - Maintenance and Building System Upgrades

Any building over 25 years old will require a systematic evaluation and upgrade of its building systems and routine maintenance. The El Cerrito BART stations are no different. Scenario 1 represents a minimum amount of work required to make a noticeable impact on the passenger and employee experience within the stations and upgrade systems as part of BART’s State of Good Repair program.

Within Scenario 1, the following modernization projects should be considered:

- *Upgrade Station Agent Booth*
- *Upgrade existing restrooms*
- *Refurbish flooring in paid areas*
- *Clean and refurbish concrete in public areas*
- *Paint the underside of the platform canopy a lighter, more reflective color*
- *Replace old lighting with new LED lights and metal panel soffits*
- *Provide pedestrian scale lighting at all seating, bike racks and bus stops*
- *Upgrade public address system and visual communication systems*
- *Remove existing bus shelters and provide new site furnishings*
- *Incorporate color & graphics for more intuitive wayfinding*

Scenario 2 - Transforming the Passenger Experience

Scenario 2 builds upon the recommended improvements in Scenario 1 and identifies additional elements that would greatly improve the passenger experience and provides new vertical circulation elements, more room for queuing, space for upgraded restrooms and possibly the addition of bicycle racks. While Scenario 1 represents a basic level of improvements needed for the maintenance of the system, Scenario 2 greatly enhances the stations in a variety of ways that will meet both current ridership needs as well as those in the future, and makes significant improvements in customer safety and comfort. Scenario 2 assumes that fire safety improvements can be accommodated without the addition of emergency exits off the ends of the platforms. Scenario 2A provides the additional work if emergency stairs are necessary.

Scenario 2 includes all the Scenario 1 improvements plus:

- *Expanded paid area*
- *New daily use stairs, elevators and escalators within expanded paid area*
- *New Station Agent Booth*
- *Relocate Kiss-n-Ride drop-off curb*
- *New “Grand Stair” at parking structure (Del Norte)*
- *Create pedestrian friendly promenades and small community spaces*
- *New restrooms within paid area*
- *Signature glass stair towers*
- *Bike racks within the paid areas*
- *Relocate existing bike racks and lockers adjacent to the Ohlone Greenway*

Expanding the Paid Area

Scenario 2 expands the paid area of each station, adding approximately 4,750 square feet, in order to add vertical circulation elements (escalators and elevators), provide more room for queuing, expand restrooms and possibly add bicycle racks. The expanded paid area also opens the space, allowing for more freedom of movement and a sense of expansiveness missing in the current configuration. In addition in this Scenario, the current station agent booth is removed and a new booth is constructed at the south end of the paid area between the fare gates. This locations provides better visual surveillance of the paid areas, the bus waiting areas and most of the bicycle lockers and racks. A new set of elevators and stairs are located on either side of the station agent booth to serve both platforms. These new vertical elements could be enclosed in glass serving as a beacon to passengers approaching the station and, in the case of the El Cerrito del Norte station, as an identifying marker from the freeway. The addition of the two new daily use staircases allows for a new set of escalators to be installed. A review of the stations “as built” drawings reveals that the existing stairs may have been installed with foundations for a future escalator pit. If these foundations do exist, this could help minimize the impact of construction within the paid area. By spreading out the entries to the paid area and adding vertical circulation elements, the design helps to alleviate bottlenecks that occur at the existing stairs and escalators during peak hours.

Transforming the Passenger Experience

In addition to the expanded paid areas, Scenario 2 re-focuses the orientation of the stations to their southern end. Re-orienting the main station entry to the south end will transform the function of the station and increase passenger activity in this zone. In each case, a new “activated space” is created under the aerial structure at the southern end of the stations and along the Ohlone Greenway. Designed to be an inviting, well-lit, safe and comfortable area for use by BART patrons, bus riders, bicyclists, pedestrians and the community at large, it could encourage greater community interactions and create a sense of ownership and loyalty among users by inspiring emotional connections. People want to be where other people are around others and this new activated space could transform the station into a place to meet up, get involved in activities and have more interesting social experiences. Attracting visitors to this space from the immediate area could encourage new patrons to use BART and promote the public image of BART as a good neighbor and community partner.

New restrooms can be built within the expansion space and access controls such as unlocking the door with your Clipper card should be considered. For passengers waiting to make a transit connection, new seating and wind screens would be provided underneath the guideway and within view of the Station Agent Booth. If possible, bike racks should be installed within the paid area and existing bike racks and lockers should be relocated to more visible areas along the Ohlone Greenway. Windows should be installed within several of the existing concrete bays at the platform level to block the wind and rain and to help encourage passengers to occupy more of the platform when waiting for a train. Numbers on the floor identifying the train cars might also help passengers know where the limits are of the longer trains. Currently, passengers cluster along the center of the platform when they are not sure about the length of the train or where along the platform the train will load.

Pedestrian Promenade and Site Work

Specifically at the El Cerrito Del Norte station, site work would include the relocation of the Kiss-n-Ride drop-off lane from its current location along the west side of the parking structure to the parking lot on the north side of the structure. Parking compliant with the Americans with Disabilities Act (ADA) would be expanded and moved under the parking structure footprint with a new crosswalk provided from the parking structure to the south entrance of the paid area. The existing Kiss-n-Ride lane would be paved over and a new pedestrian promenade adjacent to the Ohlone Greenway would be created. Currently, passengers parking in the structure are forced to use the two elevators in the northwest corner of the parking structure because egress-only stairs are located at the remote corners of the structure and are not close to the paid area. A new “Grand Stair” would be constructed along the face of the parking structure to further enhance the transition from parking to the new southern entrance. Passengers could walk down the stairs, onto the new pedestrian promenade, continue across a raised crosswalk and enter into the south end of the station. A stronger connection between the Ohlone Greenway and the bike route on Key Boulevard should be encouraged by adding a new bike path.

The pedestrian promenade will provide a safer space for passengers to walk between the parking structure and the station. It will also help re-orient the passengers toward the south end of the station. By removing many of the barriers between the station and the parking, passengers would be encouraged to acknowledge and enjoy their surroundings. The open promenade would increase opportunities to “see and be seen” and, in turn, improve safety and security and positive social interactions. On the weekends, this space could support small scale public activities to encourage community participation and connectivity.

Site work at the Plaza Station would also relocate the Kiss-n-Ride drop-off lane from its current location where it splits the west parking lot in two. Cars are currently required to enter the intermodal lane and then pull into the parking lot to access the drop-off area. The new Kiss-n-Ride configuration would close the intermodal lane to automobile traffic and provide a longer drop-off zone that runs parallel to the station. A small, pedestrian plaza with a park-like atmosphere would be created along the east edge of the drop-off lane and provide a buffer between the bus traffic and passengers waiting for transit connections or waiting to be picked up. A similar green space could be created along the Ohlone Greenway bike path, providing a continuation of green space and a potential place for small-scale community events. A community bike share program or bike repair shop could increase activity along the Ohlone Greenway and enhance the feeling of safety and security with more “eyes on the street” in this area.



Pedestrian promenades and small scale public spaces

Sustainability

At the platform level, the canopy would be expanded over the new vertical circulation elements and photovoltaic (PV) cells should be installed on top of the existing canopy to power the new LED station lighting. It is important to note that photovoltaic arrays do not typically produce power 24-hours per day. California receives a yearly average of 6 full-sun hours per day. A good “rule of thumb” estimate for PV power generation is 8-10 watts per square foot of solar panel area. On the platform roofs, a PV array could potentially produce between 150kW-175kW per hour, while a photovoltaic array on the El Cerrito del Norte parking structure could potentially produce 400kW-500kW per hour.

The extensive landscaping strips surrounding the parking lots and the existing grade changes present a good opportunity to manage stormwater runoff using bioswales on the sites. Typically, one hectare (107,678 sq. ft.) of surface area can be treated by a 100 foot long bioswale between 2-feet and 9-feet wide. The large parking lot on the west side of the El Cerrito del Norte station covers approximately 1 hectare of land. The Del Norte parking lots currently have 3,300 linear feet of planting strip around the parking and the Plaza station has approximately 3,700 linear feet of planting strip adjacent to the parking lots. These landscape buffers range between 8 feet and 41 feet wide. Based upon these estimates, it would be feasible to treat all of the parking stormwater on-site. The additional stormwater runoff from the platforms could also be treated using flow-through planters and bioretention areas within or adjacent to the station.

Scenario 2A - Fire Egress Improvements

Scenario 2A attempts to quantify the impact of additional egress requirements identified in the 2010 BART/SVRT Core Stations Modifications Study. Using new performance targets established by the 2010 California Building Code, the El Cerrito BART stations are required to add several sets of egress-only fire stairs to the ends of the platforms and increase the platform area to accommodate an additional occupant load.

Fire Protection and Performance-Based Design

The fire safety elements have been separated from Scenario 2 because many jurisdictional authorities have begun to use Performance-Based computer models as an alternative to prescriptive code interpretations. Fire simulations employ computer modeling tools and methods to determine fire growth, exit times, system activation times and smoke movement. Using computer models, multiple fire events can be simulated, analyzed and evaluated in order to help design a system that maintains safety without extensive building modifications.

Because the El Cerrito BART stations are Aerial Side Platform Stations built of non-combustible concrete and open to the atmosphere, BART should invest in a Fire Modeling study to determine if additional fire egress improvements are needed. The potential cost savings could easily justify the cost of the modeling.

Scenario 3 - Community Placemaking

Scenario 3 expands the community placemaking program at the two El Cerrito BART stations and represents a vision that is unconstrained by funding. The vision includes the improvements that are proposed in Scenarios 1 and 2 and extends these concepts to better integrate the stations with their surrounding communities. The intent is to create more of a “sense of place” for these stations, both as unique community assets as well as destinations in their own right. As a setting for community interaction, a station can become a place that accommodates a variety of activities and serves as a catalyst for improving the surrounding community as well as spurring local economic development. For both stations, Scenario 3 proposes expanding the promenade and adding a small, convenience concession element to serve passengers waiting for transit connections or on their way to and from home.

Because of the nature and ridership of the El Cerrito del Norte BART station, additional attention should be paid to safety and security issues. Scenario 3 proposes the construction of a new BART police substation, within the new activated zone, which will provide a modern, expanded work location for BART police, help BART police become integrated with the local community and serve as a deterrent to crime in the area. This new building could also house additional public restrooms, bus operator restrooms and a small convenience concession element to serve passengers waiting for transit connections, on their way to and from home. It can also serve as a catalyst for improving the surrounding neighborhood and could help make commercial districts work more effectively.

At the El Cerrito del Norte station, the pedestrian promenade would be expanded to become a neighborhood plaza transforming underused space into a vibrant, social place. To be successful, this plaza should promote human interaction and social activities, be safe and welcoming, visually interesting, promote community involvement and reflect the local culture and character.

Cost Estimate

A rough order of magnitude (ROM) estimate reflecting probable construction cost has been prepared by M Lee Corp. The estimate is based upon the 70% deliverable drawings presented on September 9, 2013 and refined during a scope review meeting on September 13, 2013. The estimate captures a “snapshot in time” and reflects current conditions as well as preliminary design information and design assumptions. The reliability of probable construction cost as captured in this estimate will inherently degrade over time. An updated estimate should be prepared when more specific and detailed design information is available.

Items affecting the cost estimate include but are not limited to:

- *Modifications to the scope of work.*
- *Unforeseen sub-surface conditions.*
- *Special phasing requirements.*
- *Restrictive technical specification or contract conditions.*
- *Any specified item of equipment, material or product that cannot be obtained from at least three different sources.*
- *Any other non-competitive bid situations.*

It should also be noted that the estimate outlines probable construction costs and does not include the following:

- *Seismic strengthening or upgrades*
- *Photovoltaic (PV) panels*

Allowances have been used for items which are required in the project but are not clearly defined at this time. Unit costs include 26.5% for general contractor’s general conditions/general requirements, overhead and profit as well as 25% contingency for design and estimating development.

Soft costs, contingency and escalation are based upon assumptions for BART projects:

- 1) *Soft costs - A/E fees, CM & PM fees, BART administration costs, etc. at 50%.*
- 2) *Project contingency at 15%.*
- 3) *Cost escalation from the date of this estimate for two years at a total of 10%.*

A summary of construction costs is outlined below with the detailed estimate provided in Appendix A.

Estimate of Probable Construction Costs for El Cerrito Plaza and Del Norte Stations						
El Cerrito Plaza Station	Construction Cost (Base Year)	Soft Costs (50%)	Contingency (15%)	Subtotal Current 2013 Dollars	Escalation (10%)	Total Cost in Year of Expenditure (YOE) ¹
Scenario 1 - Maintenance & Building System Upgrades	\$4,929,000	\$2,465,000	\$1,110,000	\$8,504,000	\$850,000	\$9,354,000
Scenario 2 - Improve the Passenger Experience	\$23,042,000	\$11,521,000	\$5,180,000	\$39,743,000	\$3,974,000	\$43,717,000
Scenario 2A - Fire Egress Improvements	\$11,000,000	\$5,500,000	\$2,480,000	\$18,980,000	\$1,898,000	\$20,878,000
Scenario 3 - Community Placemaking	\$36,203000	\$18,102,000	\$8,150,000	\$62,455,000	\$6,246,000	\$68,701,000
El Cerrito del Norte Station						
Scenario 1 - Maintenance & Building System Upgrades	\$4,515,000	\$2,258,000	\$1,020,000	\$7,793,000	\$779,000	\$8,572,000
Scenario 2 - Improve the Passenger Experience	\$24,942,000	\$12,471,000	\$5,610,000	\$43,023,000	\$4,302,000	\$47,325,000
Scenario 2A - Fire Egress Improvements	\$10,100,00	\$5,050,000	\$2,270,000	\$17,420,000	\$1,742,000	\$19,162,000
Scenario 3 - Community Placemeking	\$41,575,000	\$20,788,000	\$9,350,000	\$71,713,000	\$7,171,000	\$78,884,000

Note:

- 1) Escalated to mid-point of construction assuming two years from today (Dec. 2015).
- 2) Please see Appendix A for basis of estimate and estimate details for important assumptions, qualifications, inclusions and exclusions.

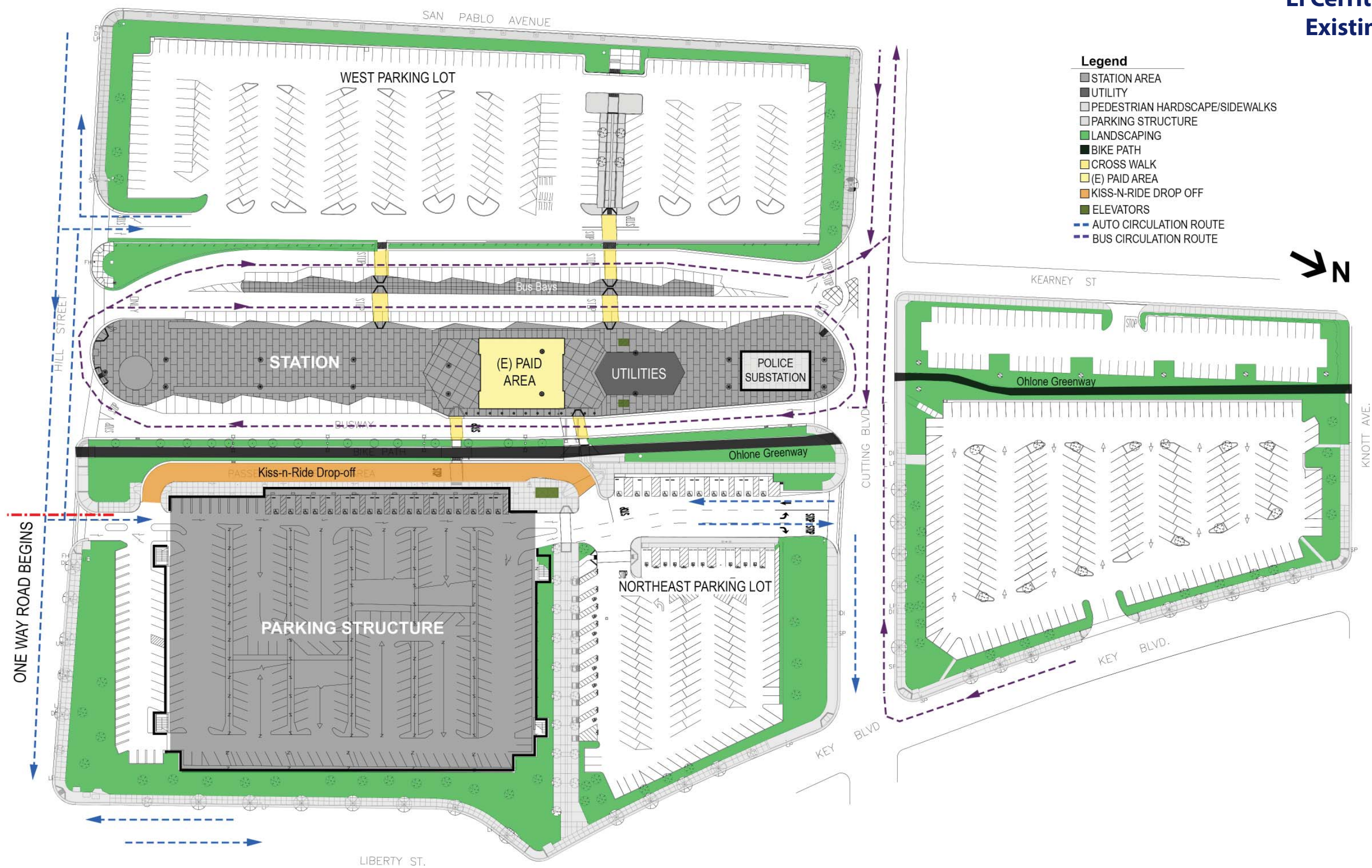
5 Conceptual Diagrams

The following diagrams and images try to capture the key concepts of the modernization study. They should be seen for what they are, conceptual diagrams that capture ideas for modernizing the stations. They should serve as a foundation for additional conversations and to help identify areas for further study. The diagrams align with the cost estimate and present a framework for identifying and prioritizing work efforts.

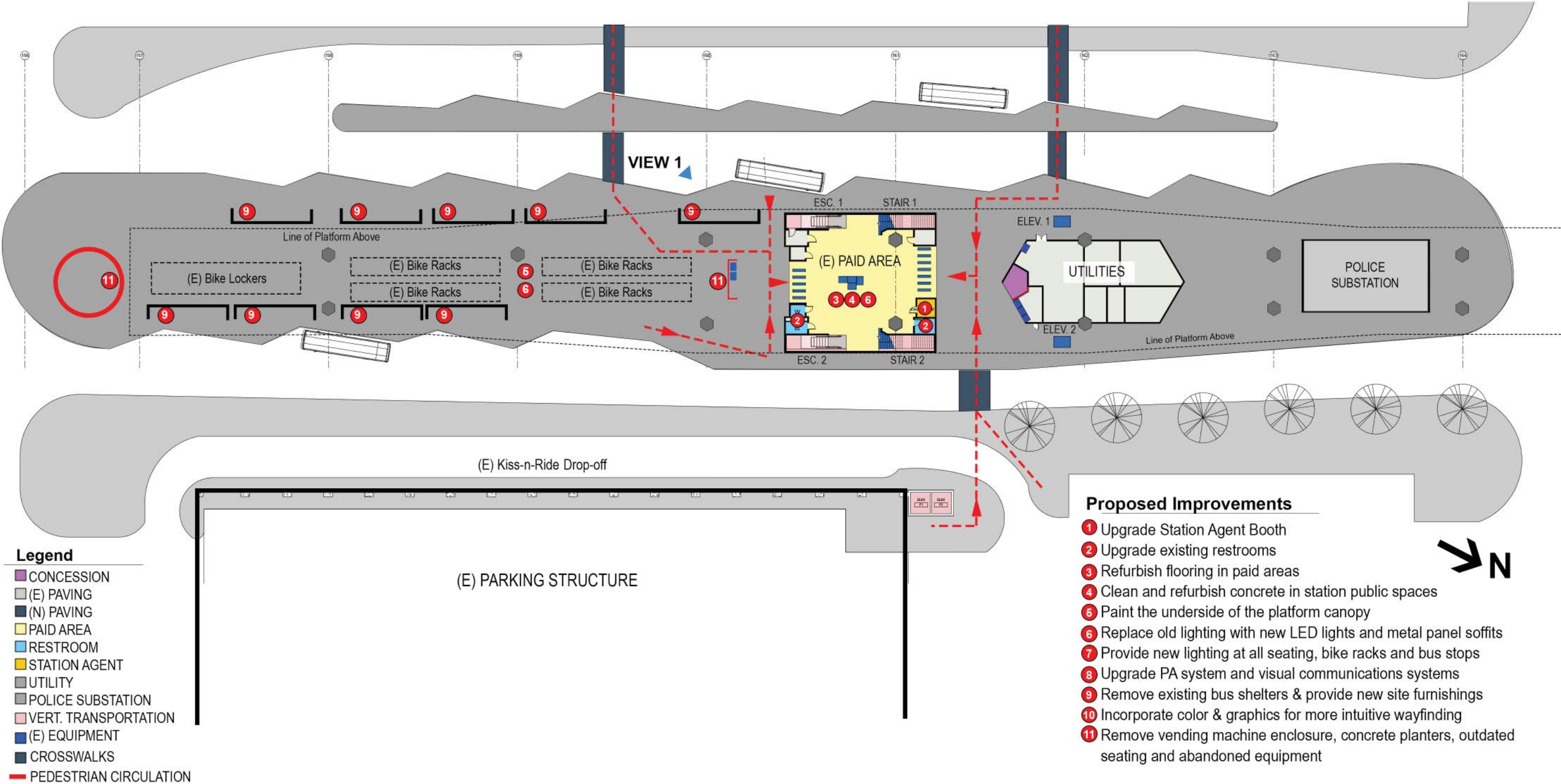
El Cerrito del Norte Station



El Cerrito del Norte
Existing Site Plan



El Cerrito del Norte
Scenario 1 - Concourse Plan



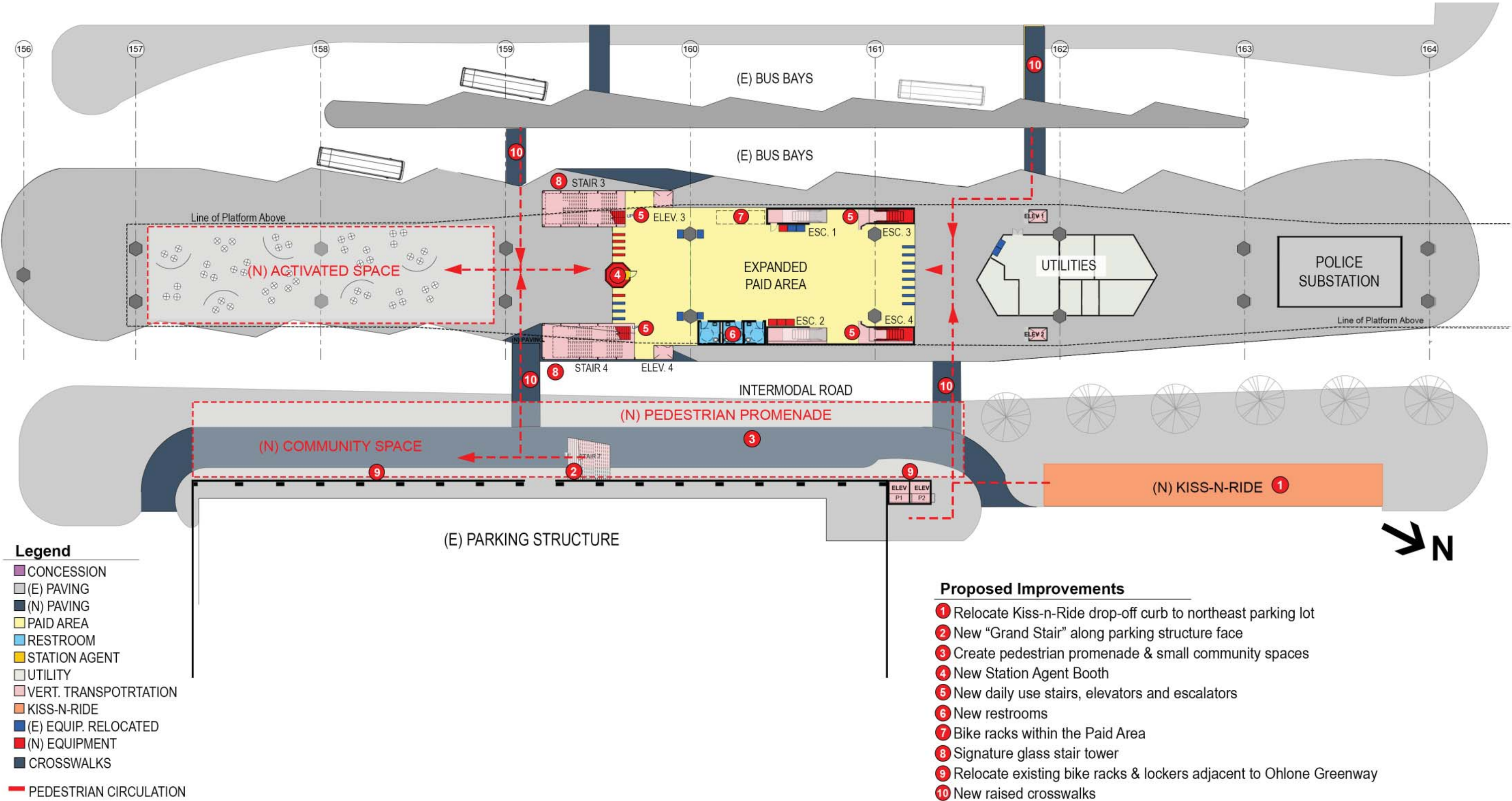
El Cerrito del Norte
Scenario 1 - Conceptual Rendering



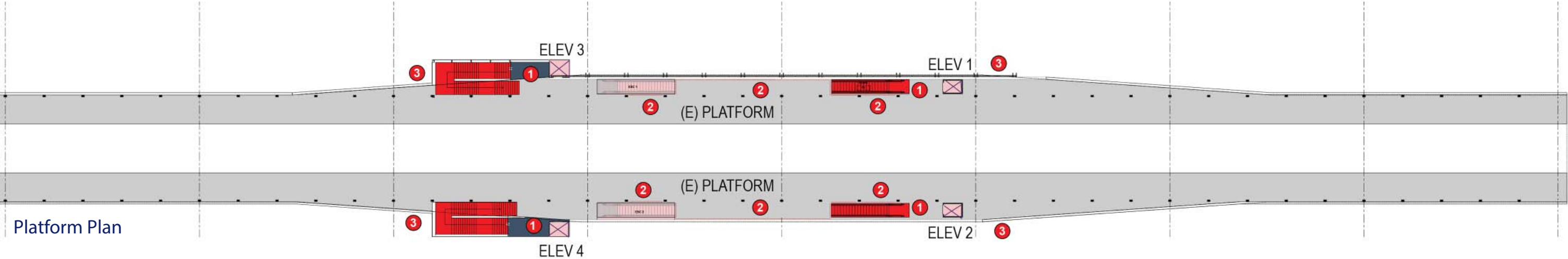
El Cerrito del Norte
Scenario 2 - Site Plan



El Cerrito del Norte
Scenario 2 - Concourse Plan



El Cerrito del Norte
Scenario 2 - Platform and Roof Plan



Legend

- VERT. TRANSPORTATION
- (E) EQUIPMENT
- (N) ELEMENTS

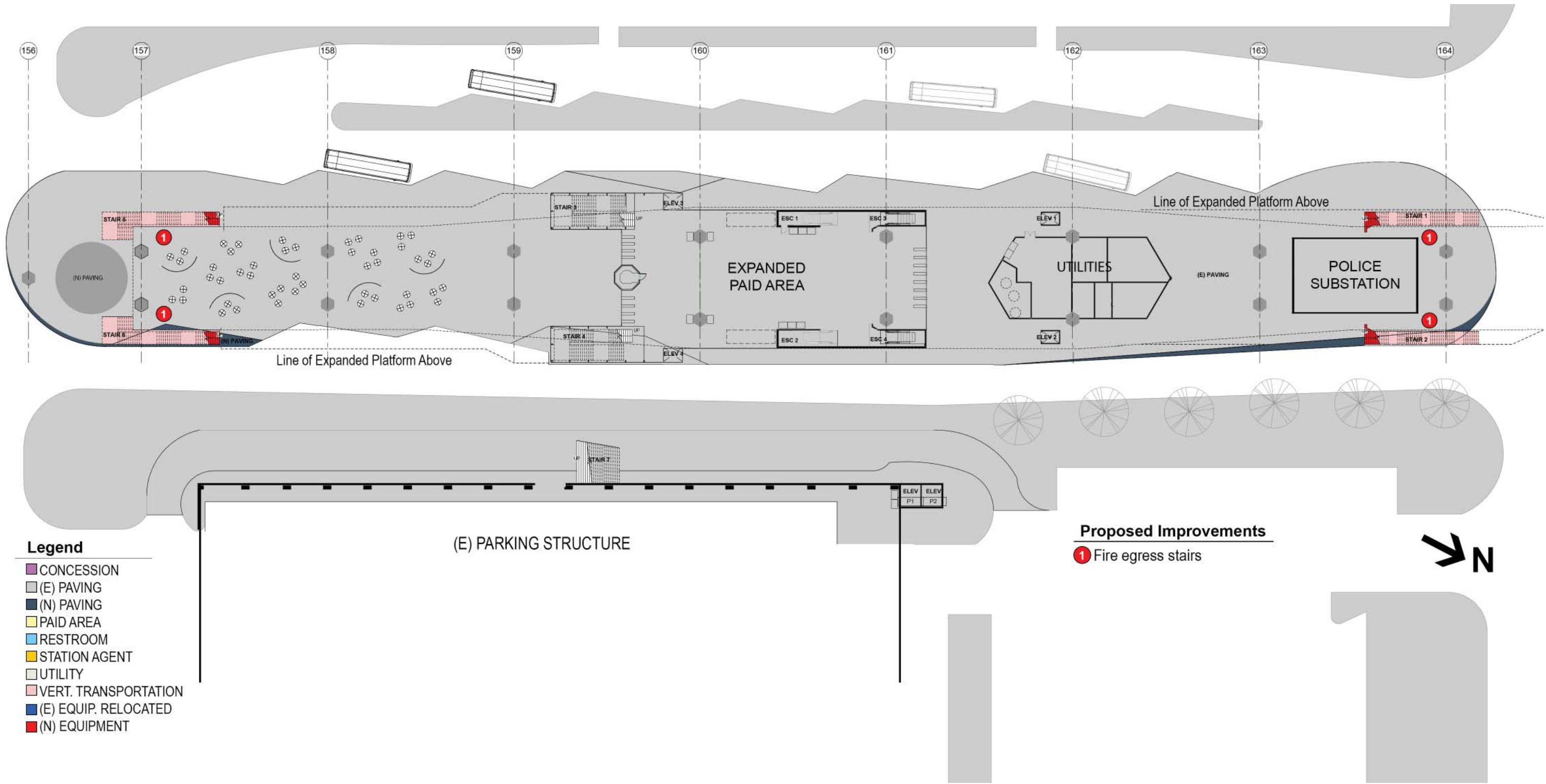
Proposed Improvements

- 1 New daily use stairs, elevators and escalators
- 2 Radiant heat panels along central platform
- 3 New windows for weather protection
- 4 New "Grand Stair" along parking structure face
- 5 Expanded roof canopy
- 6 Photovoltaics on platform roof

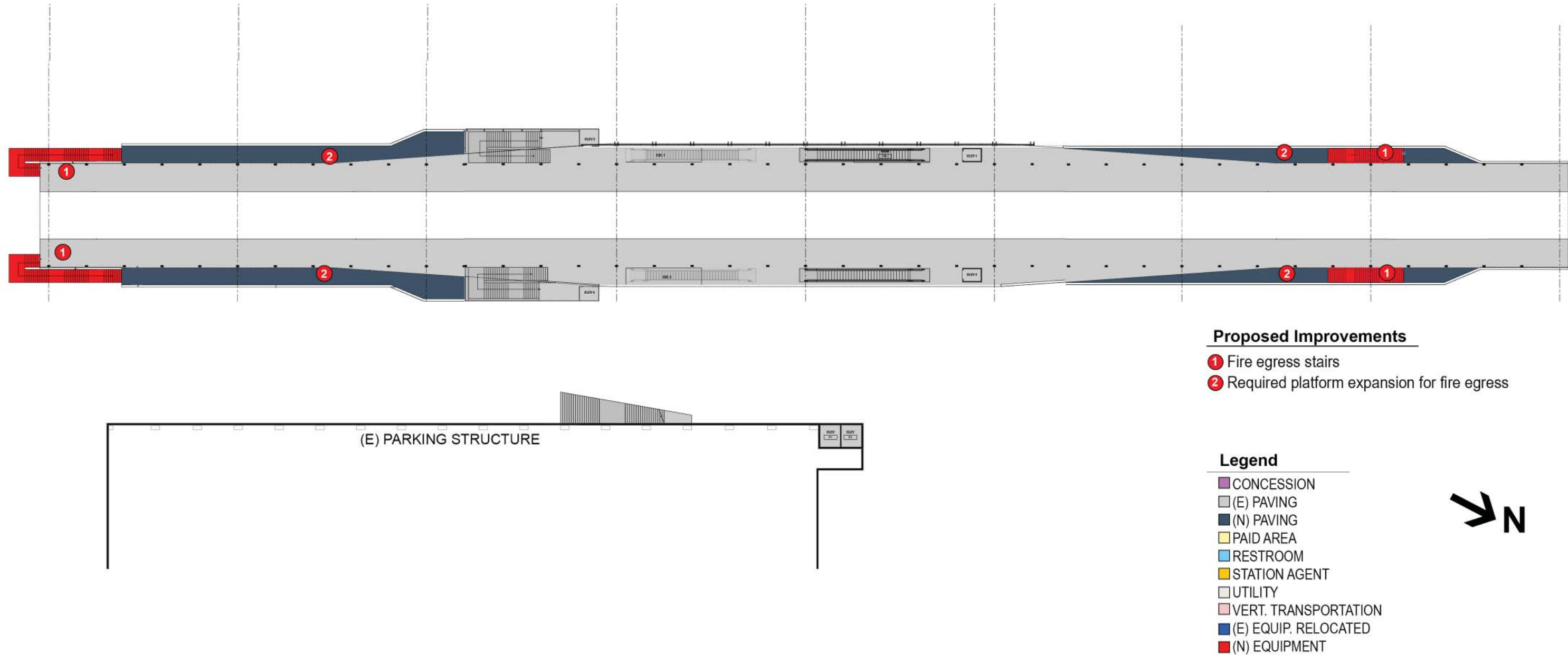


Roof Plan

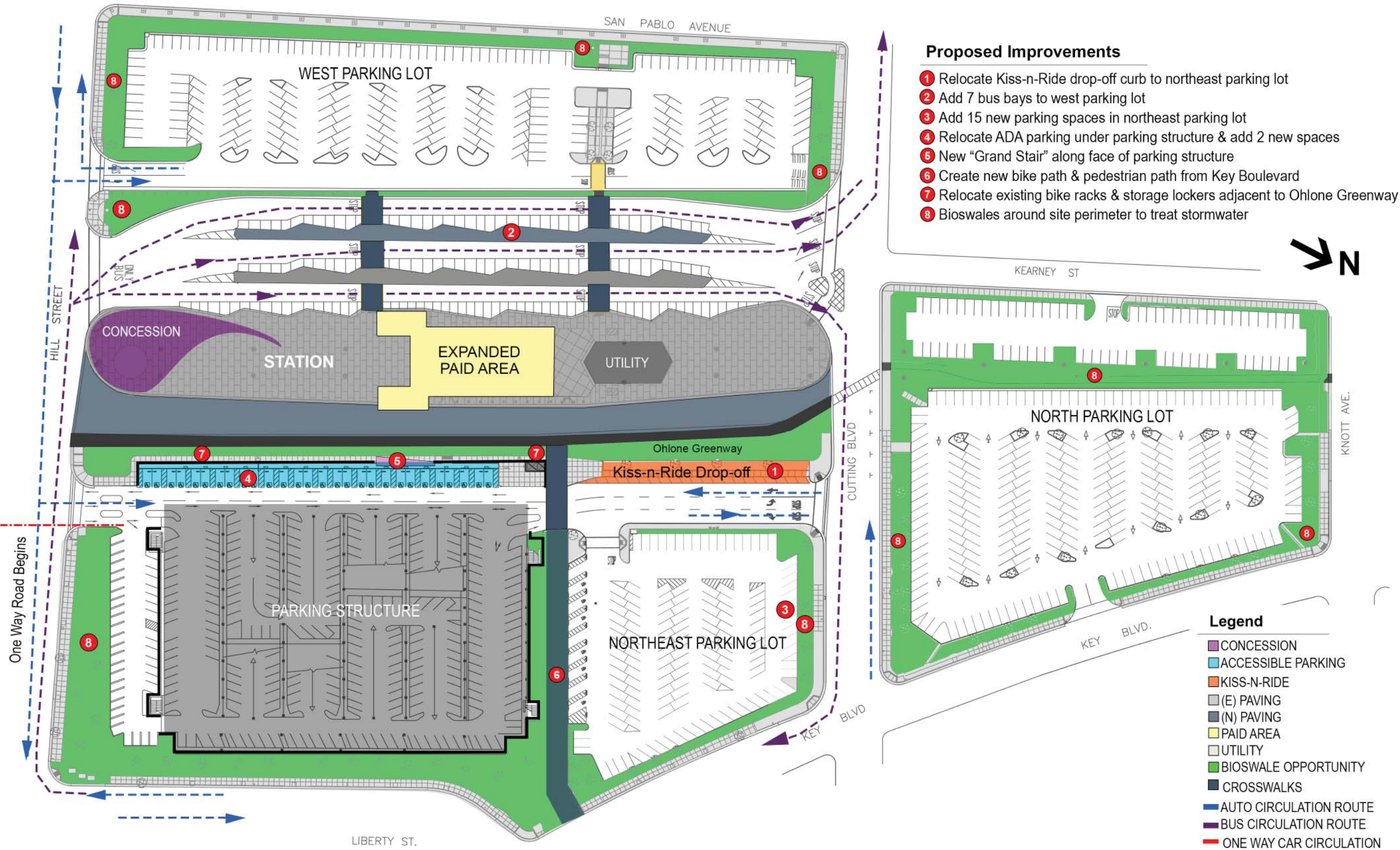
El Cerrito del Norte
Scenario 2A - Concourse Plan



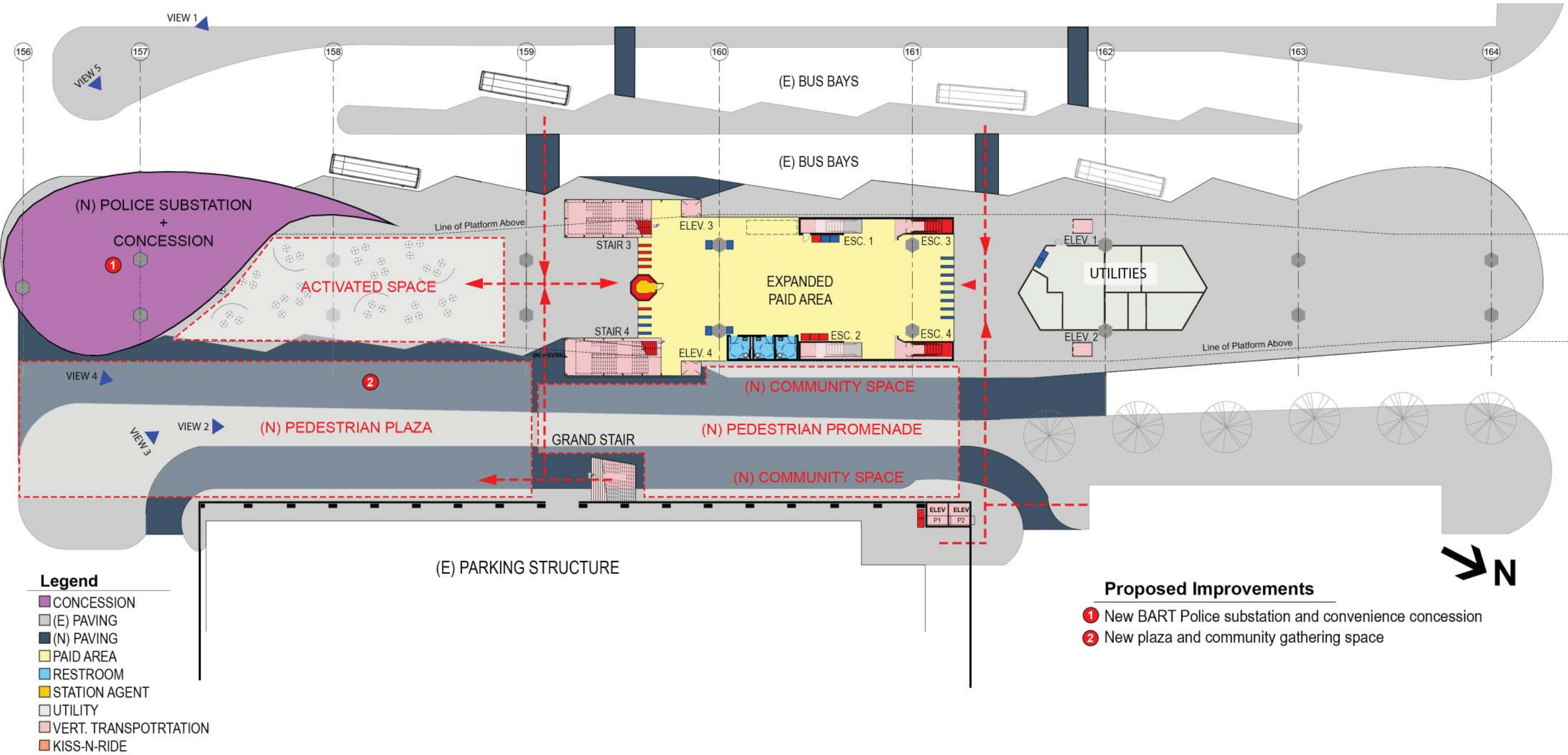
El Cerrito del Norte
Scenario 2A - Platform Plan



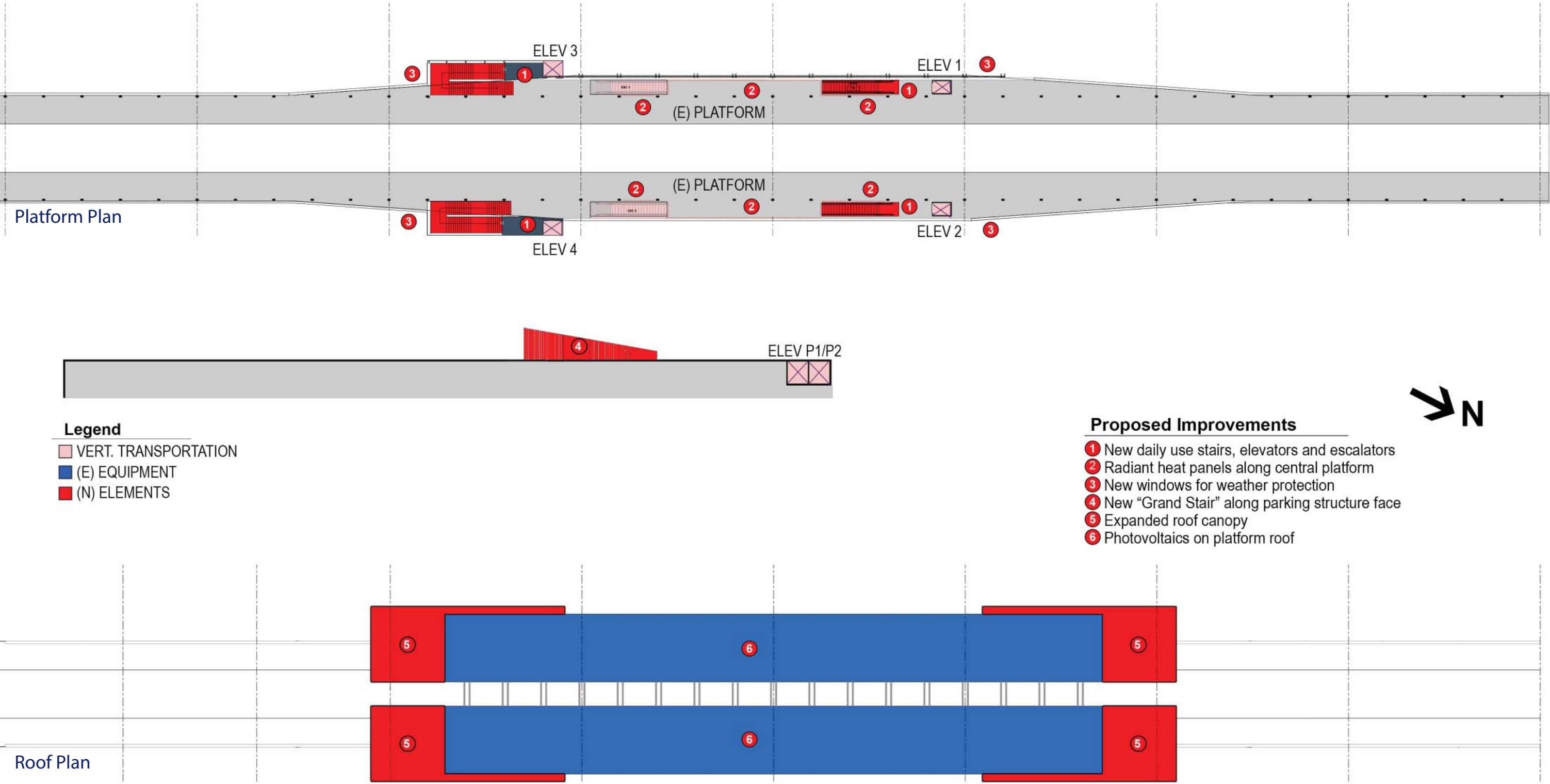
El Cerrito del Norte
Scenario 3 - Site Plan



El Cerrito del Norte
Scenario 3 - Concourse Plan



El Cerrito del Norte
Scenario 3 - Platform and Roof Plan

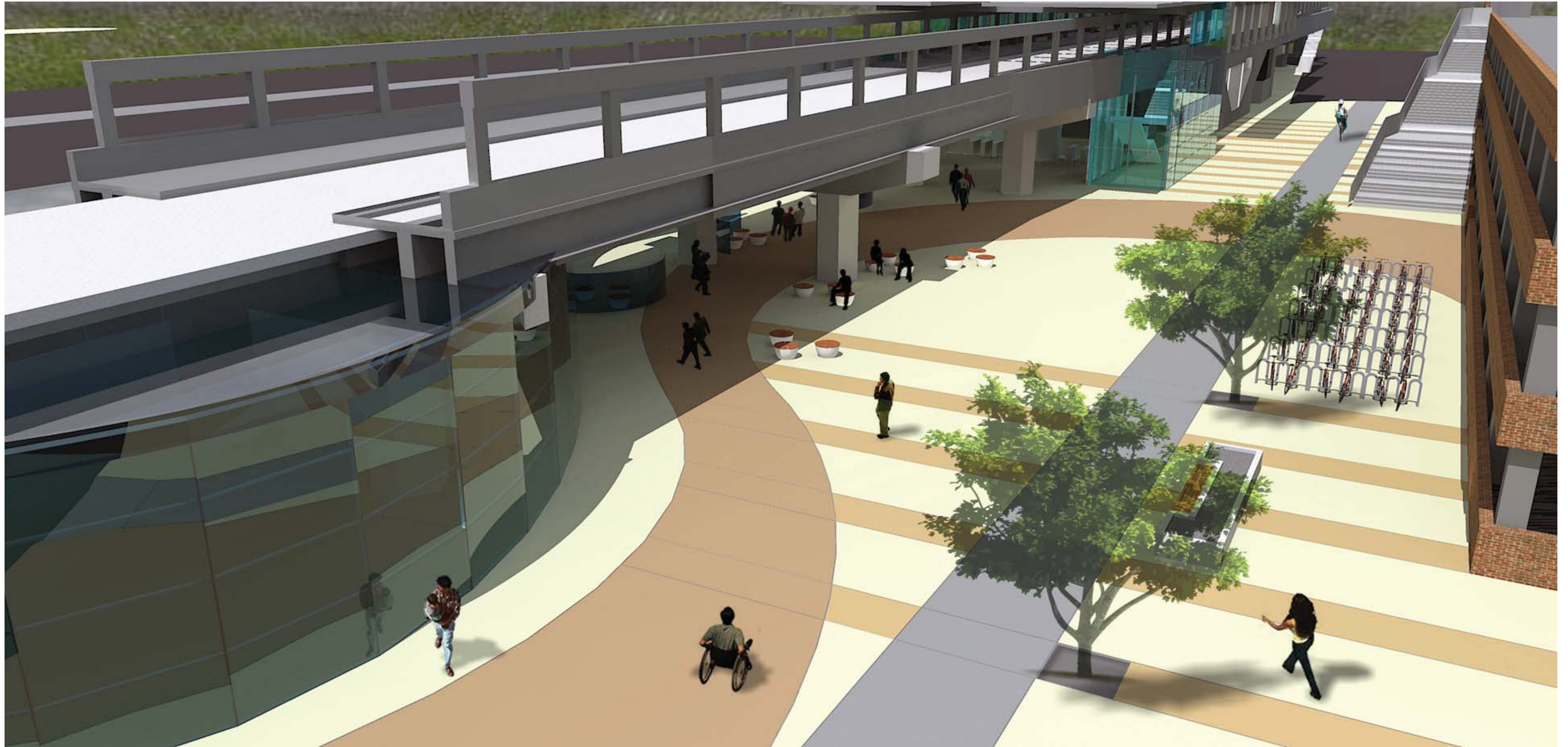


El Cerrito del Norte Scenario 3 - Conceptual Rendering



View 1 - From southwest looking toward new glass stair tower and BART police substation

El Cerrito del Norte Scenario 3 - Conceptual Rendering



View 2 - Aerial view of new plaza from southeast

El Cerrito del Norte Scenario 3 - Conceptual Rendering

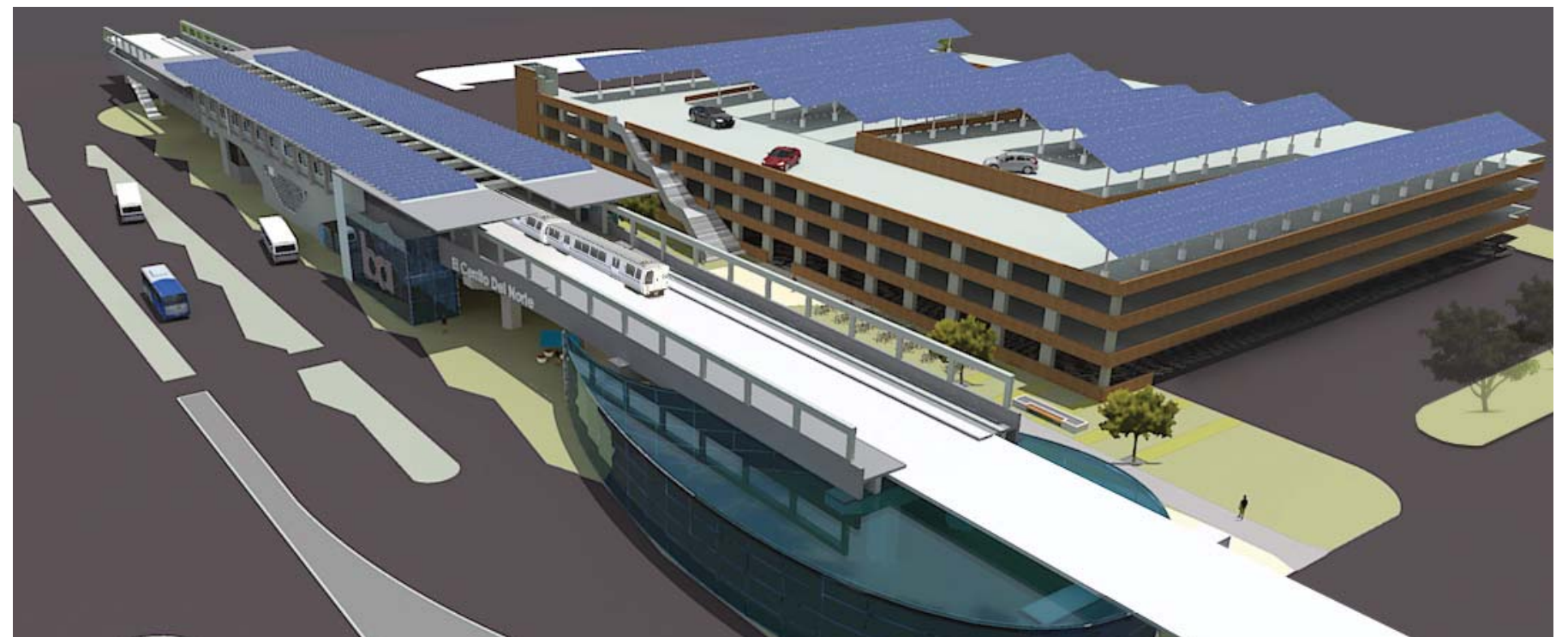


View 3 - From southeast looking toward “Grand Stair” and BART Police substation

El Cerrito del Norte Scenario 3 - Conceptual Rendering



View 4 - Aerial view from southeast looking toward “Grand Stair” and photovoltaic (PV) arrays

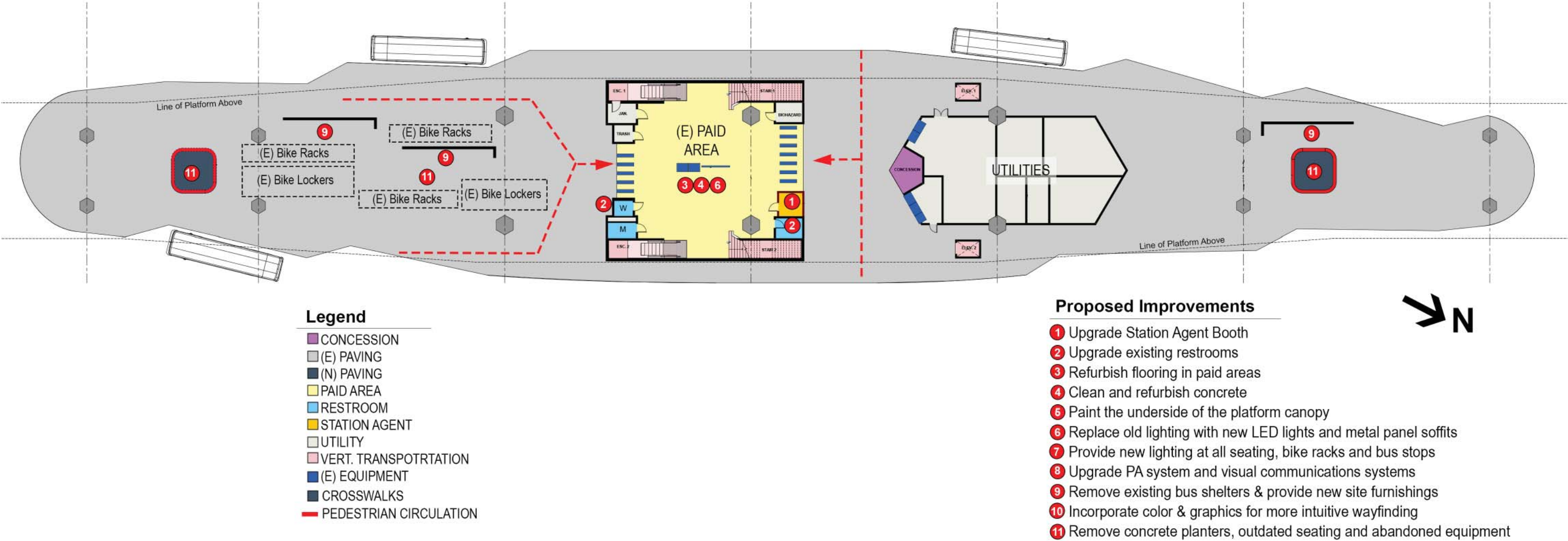


View 5 - Aerial view from southwest looking toward platform and photovoltaic (PV) arrays

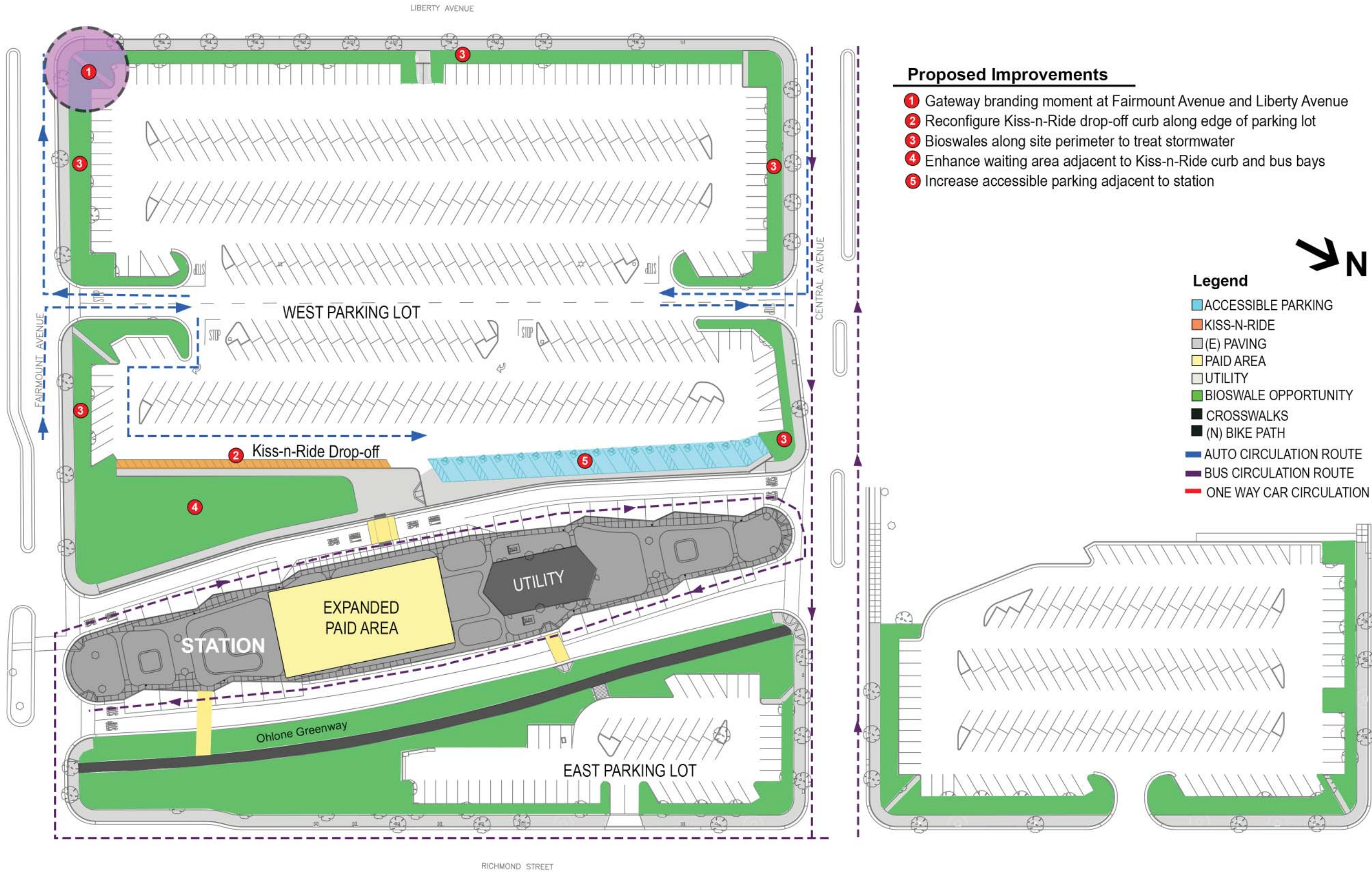
El Cerrito Plaza Station



El Cerrito Plaza
Scenario 1 - Concourse Plan



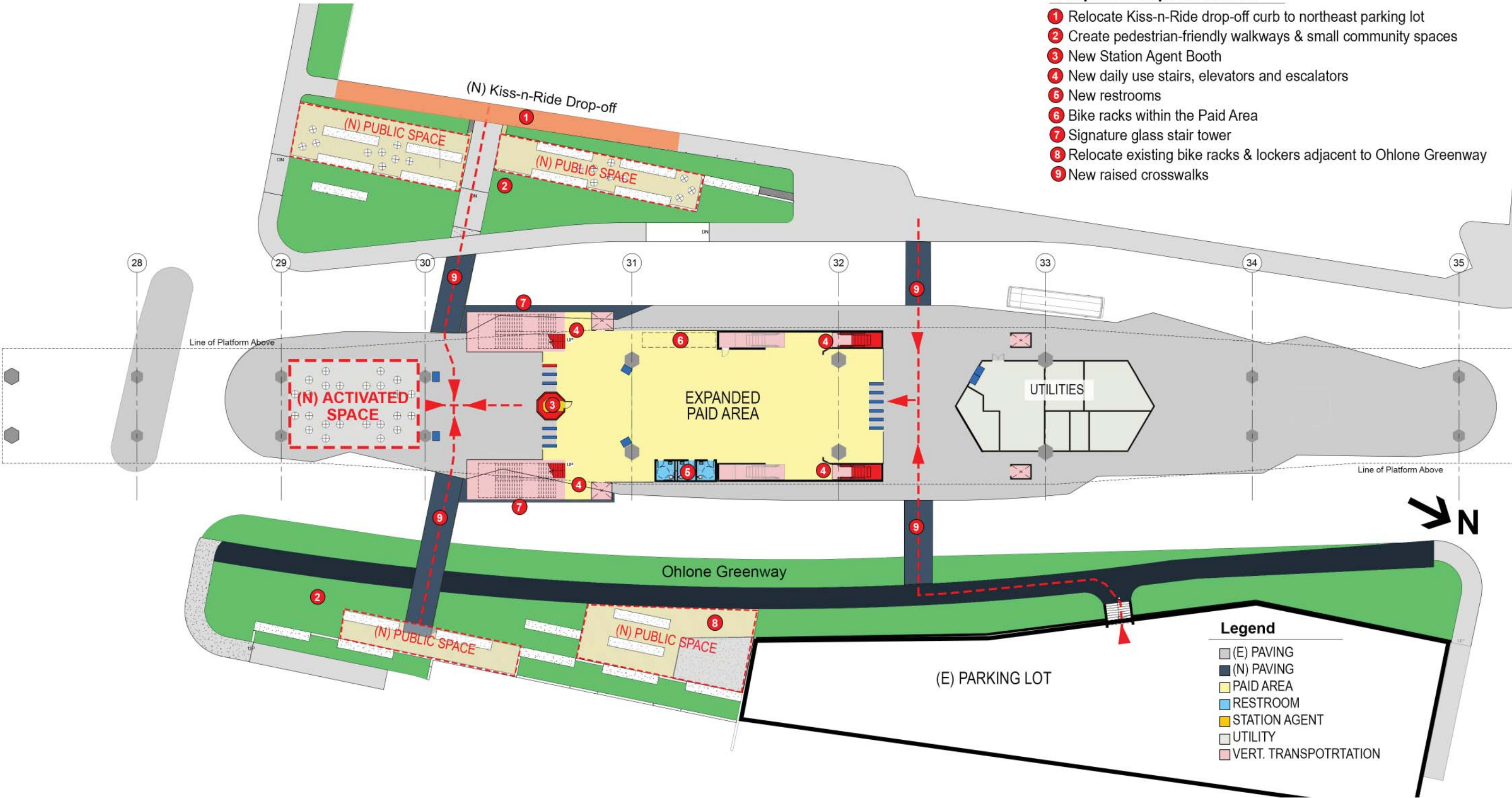
El Cerrito Plaza
Scenario 2 - Site Plan



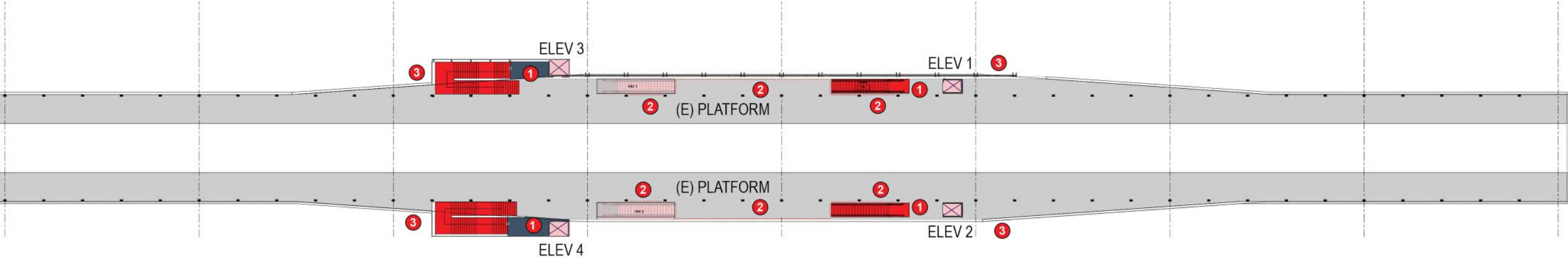
El Cerrito Plaza
Scenario 2 - Concourse Plan

Proposed Improvements

- 1 Relocate Kiss-n-Ride drop-off curb to northeast parking lot
- 2 Create pedestrian-friendly walkways & small community spaces
- 3 New Station Agent Booth
- 4 New daily use stairs, elevators and escalators
- 5 New restrooms
- 6 Bike racks within the Paid Area
- 7 Signature glass stair tower
- 8 Relocate existing bike racks & lockers adjacent to Ohlone Greenway
- 9 New raised crosswalks



El Cerrito Plaza
Scenario 2 - Platform and Roof Plan



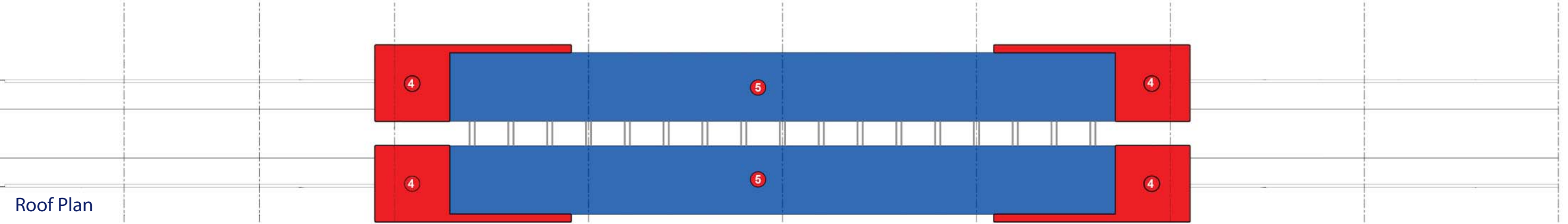
Platform Plan

Legend

- VERT. TRANSPORTATION
- (E) EQUIPMENT
- (N) ELEMENTS

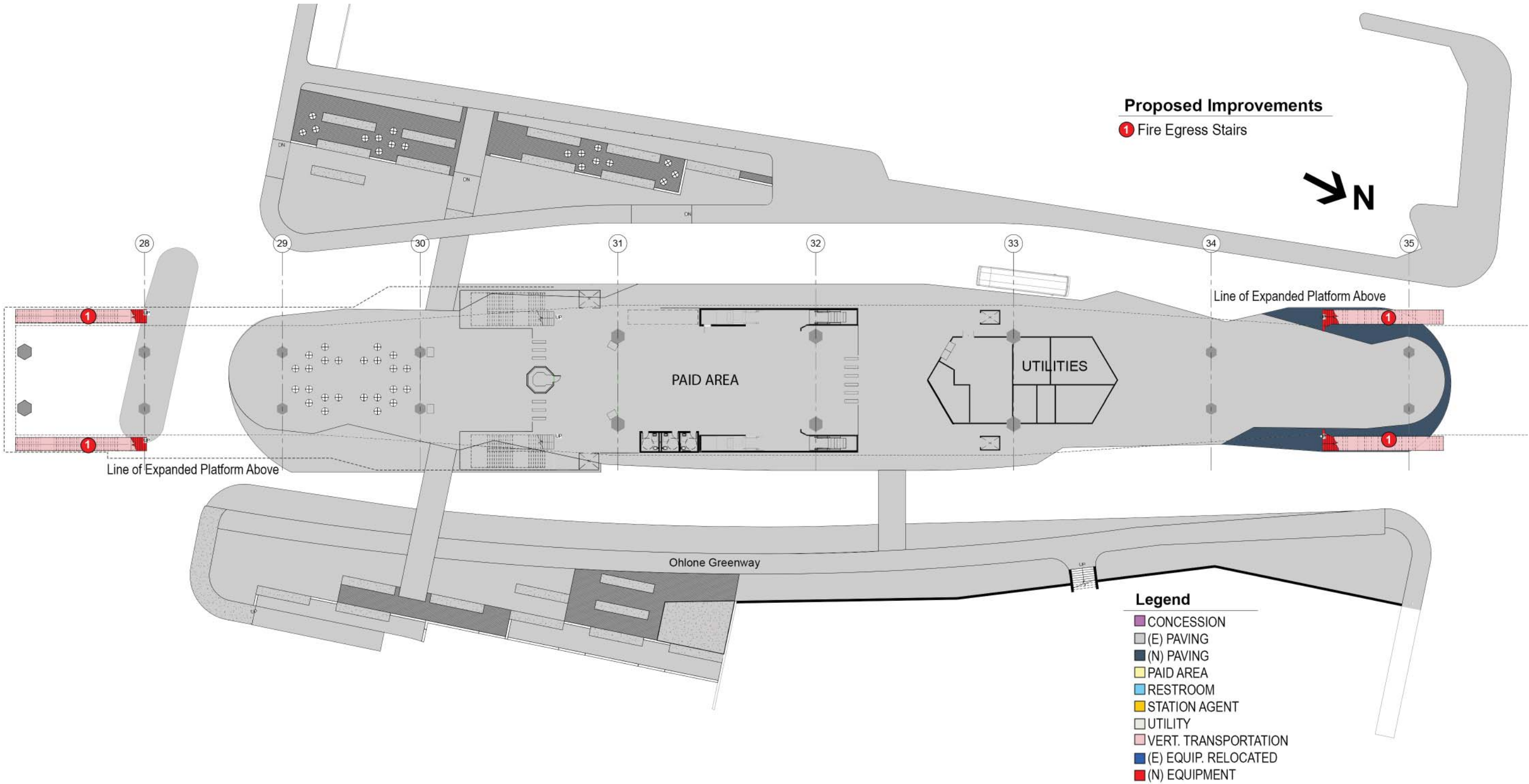
Proposed Improvements

- 1 New daily use stairs, elevators and escalators
- 2 Radiant heat panels along central platform
- 3 New windows for weather protection
- 4 Expanded roof canopy
- 5 Photovoltaics on platform roof

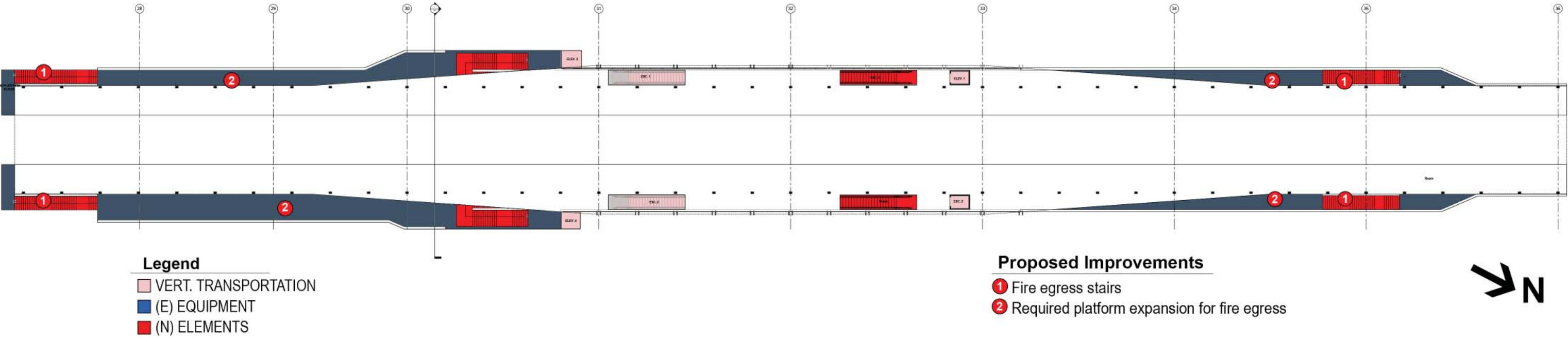


Roof Plan

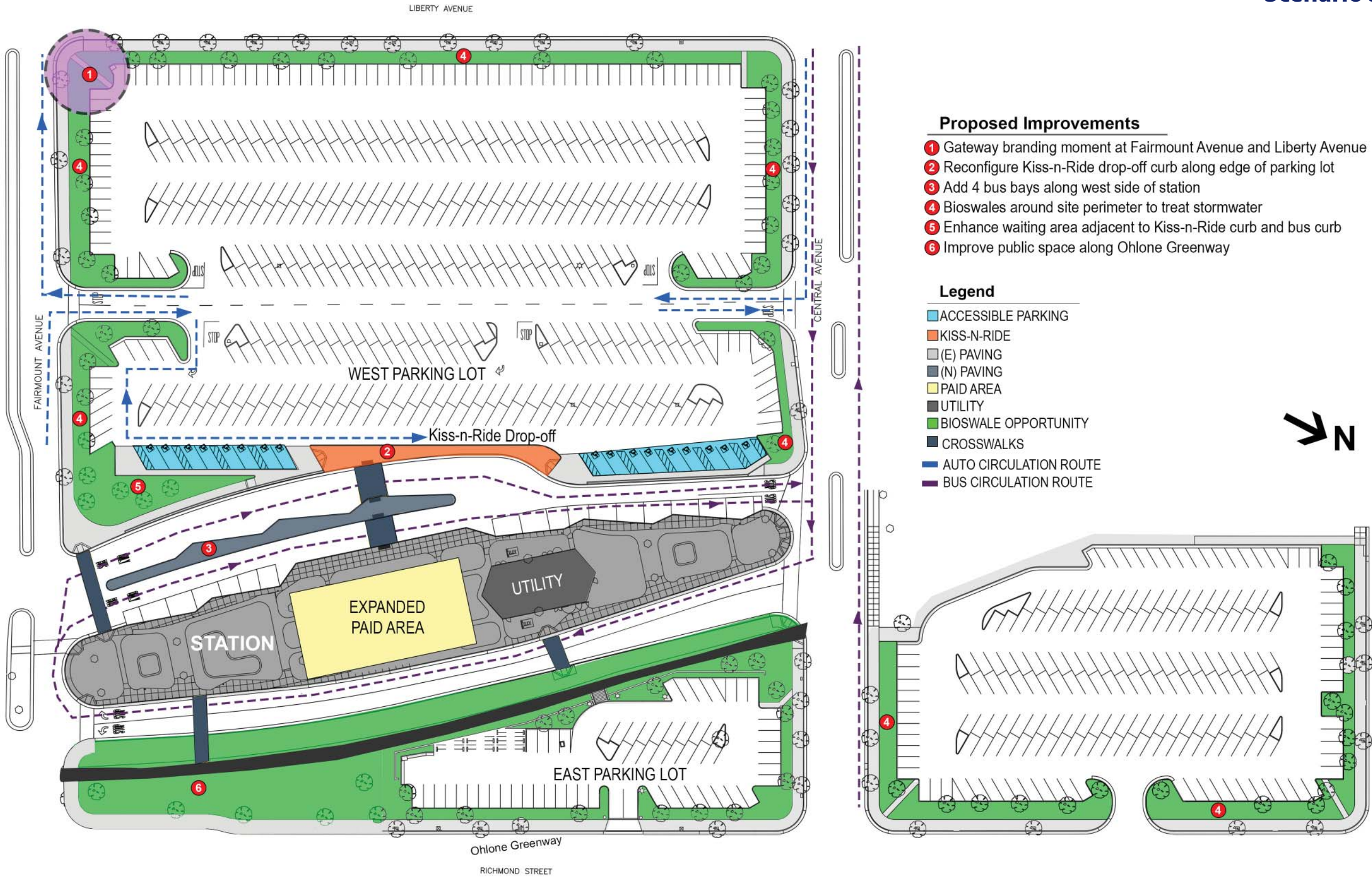
El Cerrito Plaza
Scenario 2A - Concourse Plan



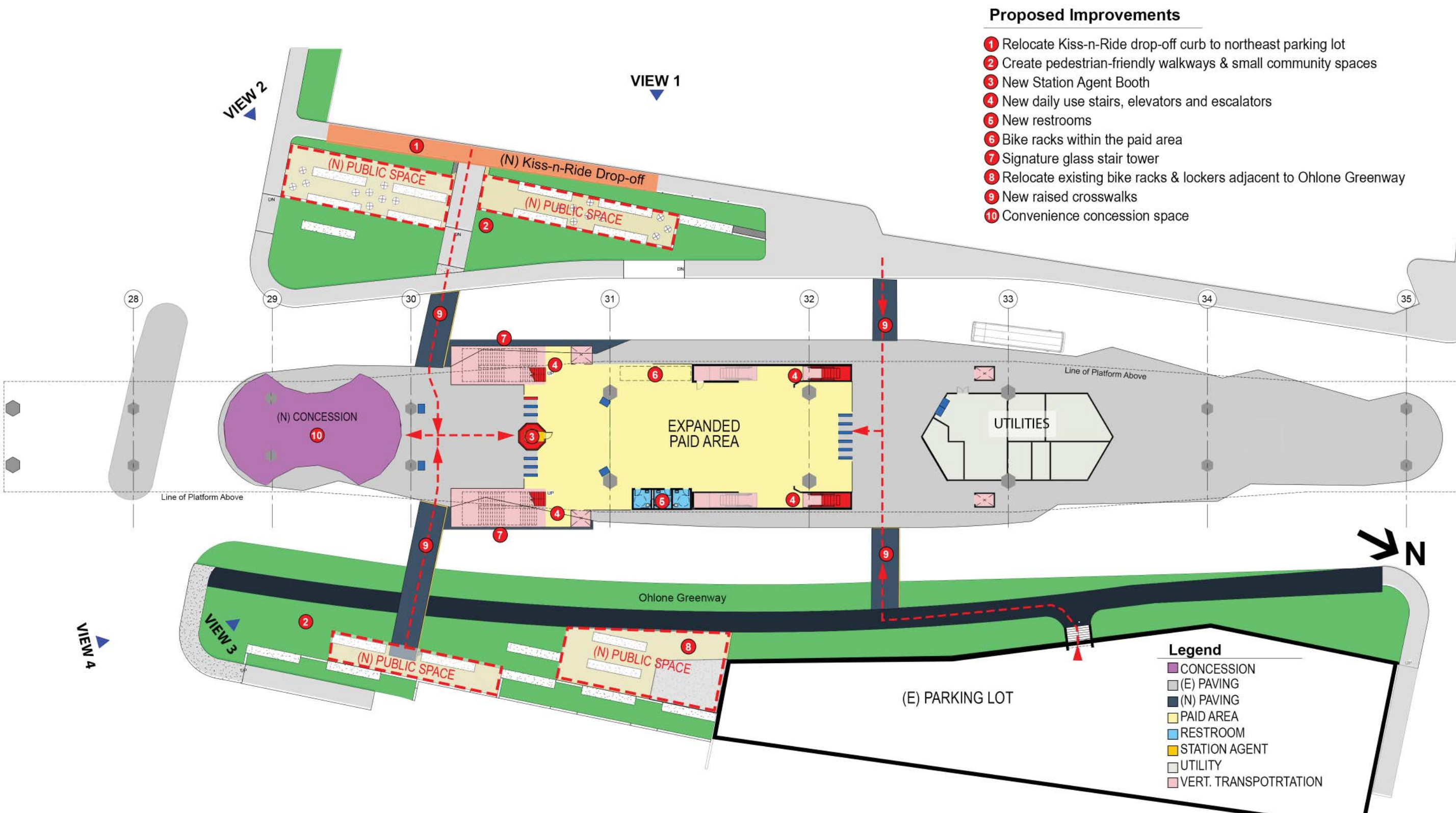
El Cerrito Plaza
Scenario 2A - Platform



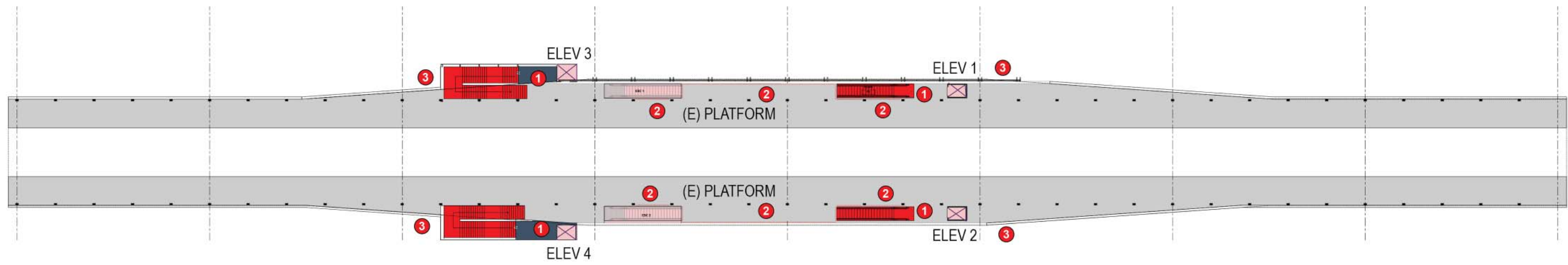
El Cerrito Plaza
Scenario 3 - Site Plan



El Cerrito Plaza
Scenario 3 - Concourse Plan



El Cerrito Plaza
Scenario 3 - Platform and Roof Plan



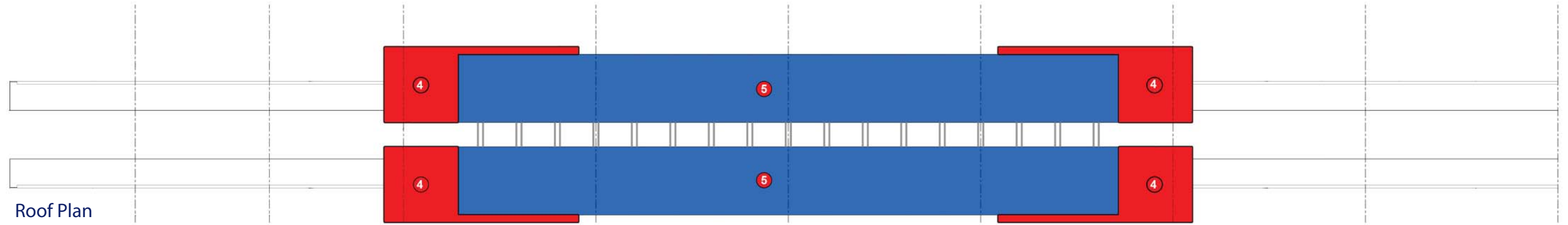
Platform Plan

Legend

- VERT. TRANSPORTATION
- (E) EQUIPMENT
- (N) ELEMENTS

Proposed Improvements

- 1 New daily use stairs, elevators and escalators
- 2 Radiant heat panels along central platform
- 3 New windows for weather protection
- 4 Expanded roof canopy
- 5 Photovoltaics on platform roof



Roof Plan

El Cerrito Plaza Scenario 3 - Conceptual Rendering



View 1 - View from west looking toward Kiss-n-Ride drop-off

El Cerrito Plaza Scenario 3 - Conceptual Rendering



View 2 - View from west looking toward Kiss-n-Ride waiting area and new glass stair tower

El Cerrito Plaza Scenario 3 - Conceptual Rendering



View 3 - View from southeast looking toward new public space along Ohlone Greenway

El Cerrito Plaza Scenario 3 - Conceptual Rendering



View 4 - Aerial view from southeast looking toward platform photovoltaic (PV) panels