

RELATED PLANS

NDOT SAFETY MANAGEMENT

In 2021, the Nevada Department of Transportation (NDOT) completed the East Bonanza Road Safety Management Plan in order to improve safety along the Bonanza corridor in pursuit of zero fatalities on Nevada roadways. The East Bonanza Road Corridor was identified by NDOT as a facility with crash rates exceeding the statewide average crash rate, making roadway improvements along the corridor a high priority. The plan provides the following:

- Road Safety Assessment
- Existing conditions evaluation for all modes
- Short-term and long-term improvement strategies that are aimed at reducing fatalities and injuries for all road users

In addition to the table of segment specific improvements shown below, the plan recommends the following upgrades:

- Upgrading all facilities to be Americans with Disabilities Act (ADA) compliant
- New median islands for pedestrian refuge
- Revised right-turn channelization
- New pedestrian warning and control devices for mid-block crossings
- Enhanced street lighting at crosswalks
- Addition of dedicated bicycle and transit facilities
- Traffic calming measures
- Application of access management by reducing a number of access points

- Upgrading signal timing and signal heads
- Upgrading pavement markings and signs

The Paseo Bonanza Plan provides an updated version of this safety management plan in order to visualize safety improvements at key locations along the corridor, and apply roadway improvements strategies in the context of the Our Future East Las Vegas Area Plan.

LAS VEGAS VISION ZERO

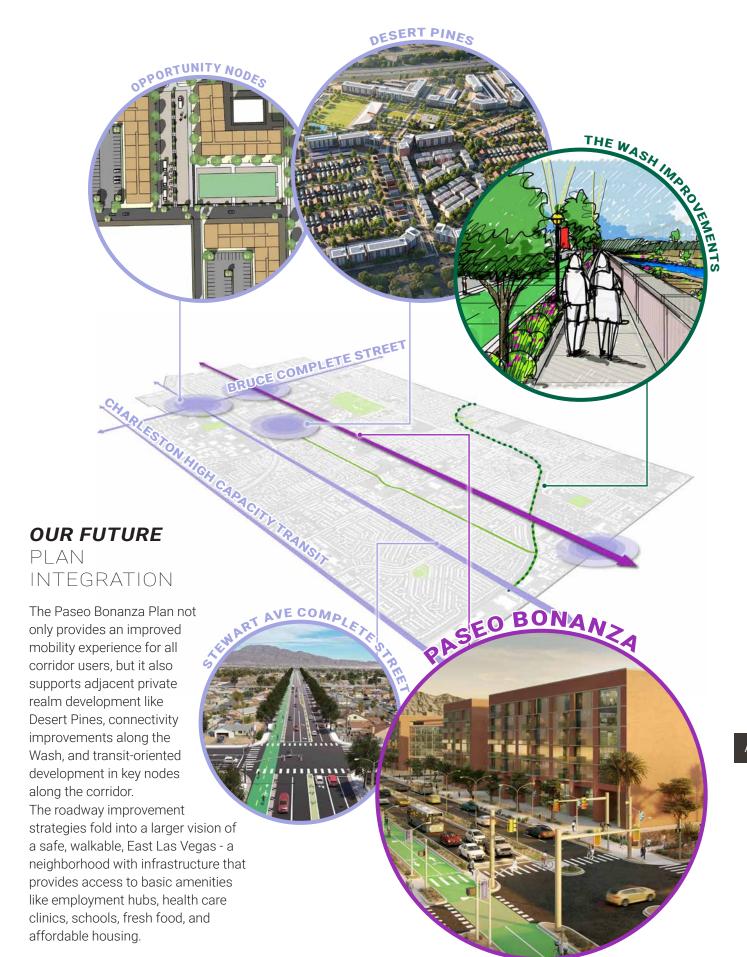
Bonanza Road is part of the city's High Injury Network, where a high concentration of traffic deaths and serious injuries occur. The city's Vision Zero initiative sets the tone for roadway improvements that will create a safer experience for all users.

Vision Zero Strategies:

- 1. Reform the city's approach to transportation safety
- 2. Create safe streets for all
- 3. Implement safe speeds
- 4. Promote a culture of safety
- 5. Enhance communication, transparency, and accountability

The Paseo Bonanza Plan aims to communicate NDOT recommendations in a transparent manner for the East Las Vegas community. If implemented, recommendations will create a safer environment for all roadway users, improving the multi-modal experience through streetscape design, enhanced transit stops, bike infrastructure, and placemaking efforts.







COMMITMENT TO HEALTH & PUBLIC SAFETY

Improve access to healthcare, safer homes and streets, remediation of poor air quality, urban heat island effects, and better access to fresh food. The definition of health goes beyond the need for better access to healthcare to overall wellness and safety.

•• A GREENER EAST LAS VEGAS

Planting more trees will help reduce the impacts of the urban heat island effect, providing necessary shade along sidewalks, trails, and in parks. Prioritize native species and support urban agriculture and a resilient ecosystem. Connect open spaces to promote mobility, recreation, and improve health outcomes.

• INVESTMENT IN THE PUBLIC REALM

Prioritize reinvestment in East Las Vegas transportation network and amenities, so that they encourage safety, wellness and contribute to a greater sense of place and identity. With 39 percent of land in East Las Vegas publicly owned, the city and its public partners have the opportunity to catalyze tremendous change through public realm improvements along streets, the Las Vegas Wash and the park network.

CREATE A SENSE OF PLACE WITH MIXED-

Reinvigorate aging commercial corridors into mixeduse centers while supporting existing businesses and community members. Dense corridors with a mixture of business and housing not only provide increased access to transit and resources, but creates a greater sense of place that helps neighbors positively identify with their neighborhoods.

EMPOWER PEOPLE

Promote and connect agencies, non-profits, and city programs, maximizing capacity to nourish the business development pipeline. Strengthen intergenerational educational opportunities, childcare, workforce development, business assistance and incubators. Prioritize health and technology industries by investing in STEM education and job training.



A-5

COMPROMISO CON LA SALUD Y LA SEGURIDAD PÚBLICA Mejore para la gente de East Las Vegas el acceso de

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4

Mejore para la gente de East Las Vegas el acceso de cuidado de salud, casas y calles más seguras, remediación del aire de calidad pobre y islas de calor urbanos, y la comida fresca. Hay que asegurar no solo el acceso de cuidado de salud, sino el bienestar y la seguridad en total

UN EAST LAS VEGAS MÁS VERDE

Plante más arboles y mejore el paisajismo tolerante a la sequía para reducir los efectos de la isla de calor urbana en East Las Vegas, proveendo la sombra adecuada en la propiedad privada, por las aceras, por los senderos, y en los parques. Priorize los especies nativos y apoye la agricultura urbana y un ecosistema resiliente. Conecte los espacios abiertos para promover la movilidad, el recreo, y los resultados de salud mejorados.

•INVERSIÓN EN EL ÁMBITO PÚBLICO

Priorize reinversión en las calles y las aceras de East Las Vegas, para que fomenten la seguridad y el bienestar y contribuyan al sentido de lugar e identidad.

Con 39 por ciento de la tierra en East Las Vegas de propiedad pública, la ciudad y sus socios públicos tienen la oportunidad de catalizar cambio tremendo por mejoras del ámbito público por las calles, el Wash Las Vegas, y el red de parques.

CREE UN SENTIDO DE LUGAR CON CENTROS DE USO MIXTO

Revitalize los corredores comerciales envejecidos como centros de uso mixto, mientras apoyando a negocios existentes y miembros de la comunidad. Los corredores densos que tienen una mezcla de negocios y alojamiento no solo proveen acceso aumentado al tránsito y a recursos, sino que crean un sentido de lugar que ayuda a los vecinos en indentificarse positivamente con sus vecinidades.

CAPACITAR A LA GENTE

Promueve y conecte las agencias, las organizaciones sin fines de lucros, y los programas de la ciudad, maximizando la capacidad de alimentar la tubería de desarrollo de negocios. Fortalezca las oportunidades educacionales intergeneracionales, el cuidado de niños, el desarrollo de la fuerza laboral, y ayuda e incubadoras para los negocios. Priorize las industrias de la salud y la tecnología por invertirse en la aduación STEM y la formación profesional.



Estas políticas y prioridades resumen las recomendaciones del plan al cinco grandes estrategias para ayudar en guiar la inversión para el futuro de East Las Vegas.

Las páginas siguientes perfilan estrategias claves par cada recomendación. Algunas estrategias se categoriza en hojas de proyectos prioritizados. Los planificadores de la ciudad las usuará para hacer recomendaciones de zonificación, para los propuestos anuales, y para la planificación de mejoras de capital.

Se incluye un plan de acción detallado como apendice.

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INTRODUCTION



Spanish to come

SPANISH TO COME

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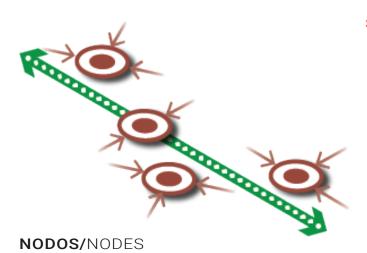


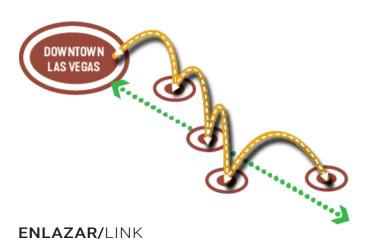
Residents of East Las Vegas have a vision for Bonanza Road, to see it transform from a high-speed auto-centric arterial to a vibrant multimodal corridor that builds a sense of place and enhances residential and commercial life. To make this happen, pedestrians, transit users, and bicyclists must feel safe, and the greatest threat to these vulnerable road users is high vehicle speeds, which make crashes more likely and ultimately more severe. Bonanza Road is currently built for high speeds, and no amount of education or enforcement can make up for this design challenge.

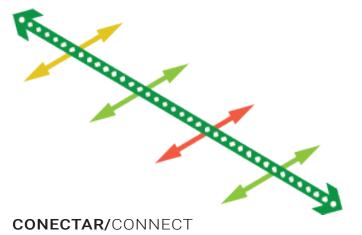
There are dozens of well-tested tools for modifying the design of a road to encourage slower speeds and create more protected space for pedestrians and bicyclists. Implementing them successfully requires fundamentally rethinking the road design paradigm, starting with base assumptions.

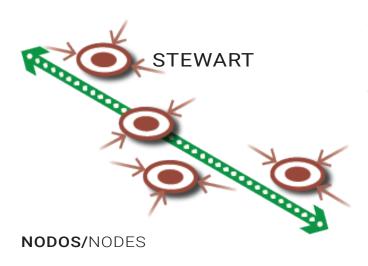
PERFORMANCE TOOLKIT

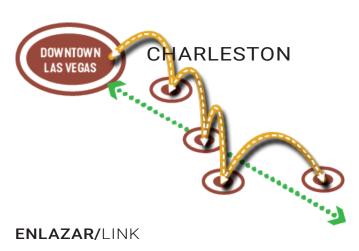
- Traffic growth projection models are typically used to provide a basis for future road design decisions, but studies have shown that they often overestimate traffic growth and can interfere with municipal goals for transportation mode shift and emissions reduction. ¹ The NDOT report identifies an alternative Transportation Demand Management (TDM) projection model that leads to much less traffic growth. Basing road design on this model instead of the conventional model would better facilitate the transition to an active, multimodal corridor. ¹
- Level of Service (LOS) is a performance measure often relied upon to guide design decisions, with levels assigned based on how free-flowing traffic is on a given road segment. In addition, performance measures that reflect level of service for non-motorized travel, such as crash rates, pedestrian LOS, bicycle LOS, and transit ridership and performance, should be considered along with traditional LOS.²

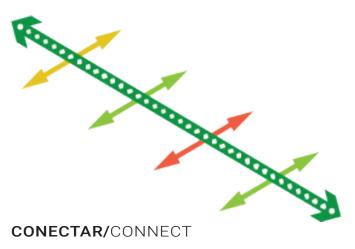








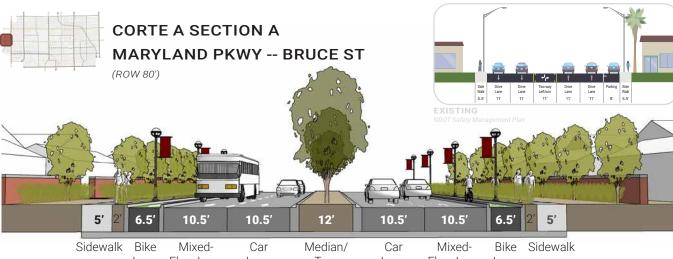




Among the tools listed in the toolbox on page A-15, this plan makes use of a handful of impactful strategies within the context of East Las Vegas and Bonanza. First, **protected bike lanes** have been proposed across the length of the study area: one-way in the western stretch leading from downtown, transitioning to a two-way cycle track. Research has shown that protected bike lanes make not only bicyclists, but all road users safer.³ The most effective bike lanes provide a horizontal buffer and a vertical separation from vehicle traffic. Bike lanes should be consistent and connect to important community destinations. In certain cases, bike lanes can be combined with bus lanes, but this is not seen as a comfortable option for bicyclists on high-speed, high-volume roads.⁴

Second, strengthening pedestrian infrastructure has been proposed through wider sidewalks and more frequent, robust crosswalks. More space to accommodate walking, running, strollers, wheelchairs, outdoor dining and vendors, public seating, transportation hubs, public art, festivals, droughtresistant landscaping, drinking fountains, trash cans – all adds to a lively corridor built for public life. Pedestrians must also feel empowered to reach their destinations safely across the expanse of Bonanza Road. Crosswalks should be placed at sufficient frequency to serve pedestrian needs and major destinations, otherwise people will cross at unmarked mid-block locations. On a high-speed and high-volume road such as Bonanza, crosswalk enhancements like Rapid Rectangular Flashing Beacons (RRFBs) and Pedestrian Hybrid Beacons (PHBs) can improve driver compliance in stopping for pedestrians.5

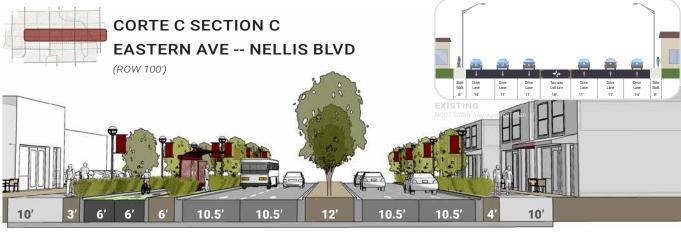
Finally, streets are part of a city's system of **public space** and have a crucial role in both reducing the causes of climate change and mitigating local impacts. Nevada is already facing an increase in extreme heat and drought due to climate change, and streetscape design elements such as a system of shade and drought-resistant landscaping can add to local resilience infrastructure and help prepare the city's transportation network for the future.



idewalk Bike Mixed- Car Median/ Car Mixed- Bike Sidewalk Lane Flow Lane Lane Turn Lane Flow Lane Lane Lane



Sidewalk Bike Bike Parking Mixed-Car Median/ Car Mixed-Parking Sidewalk Lane Flow Lane Turn Flow Lane Lane Lane Lane Lane Lane Lane



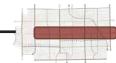
Sidewalk

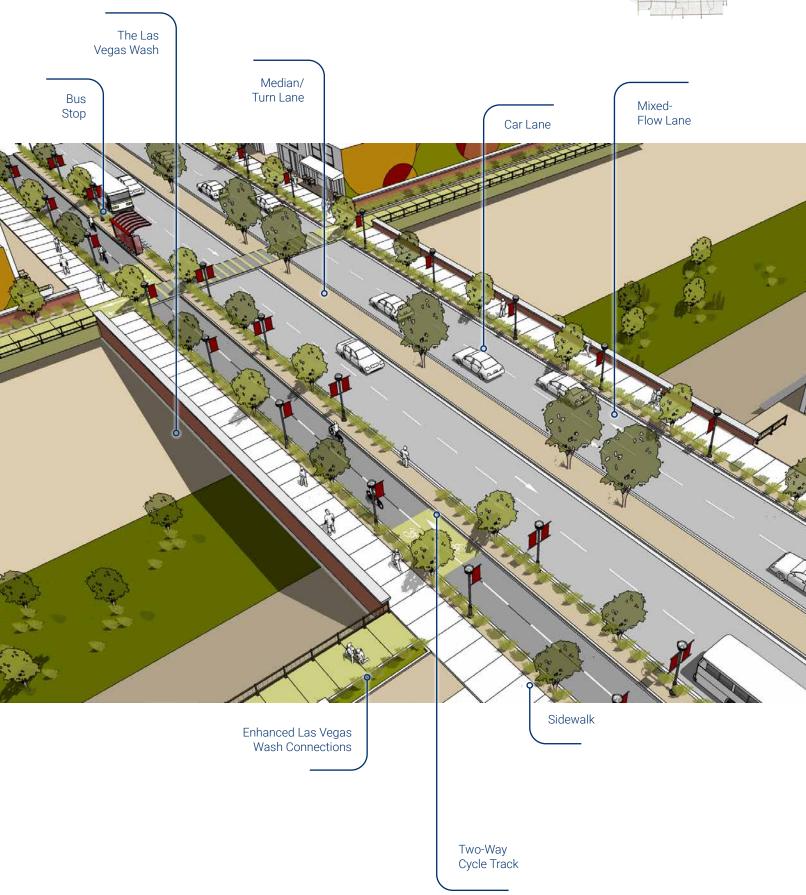
Bike Bike Lane Lane Mixed-Flow Lane Car Lane

Median/ Turn Lane Car Mixed-Lane Flow Lane Sidewalk









Median/ Turn Lane

Car Lane



Two-Way Cycle Track

Sidewalk

Mixed-Flow Lane

HERRAMIENTAS DE MEJORA

IMPROVEMENT TOOLKIT

Actualmente, Bonanza es una avenida arterial de alta velocidad, no orientada a la comodidad y seguridad de usuarios que no sean conductores. Este conjunto de herramientas de mejora proporciona un set de estrategias adecuadas para transformar una carretera principal en un, reducir la velocidad, aumentar la infraestructura multimodal y mejorar el sentido de pertenencia.

Bonanza Road is currently a high-speed arterial, not geared towards the comfort and safety of users other than vehicle traffic. The road improvement toolkit provides a suite of strategies appropriate for transforming a major street, slowing speeds, increasing multimodal infrastructure, and enhancing a sense of place.

VELOCIDADES VEHICULARES SEGURAS

Conducir rápido resulta en paradas repentinas más difíciles, en un campo de visión reducido y en una mayor probabilidad de tener accidentes graves. Reducir la velocidad de los vehículos es una de las metas principales en la creación de calles seguras para todos.

SAFER VEHICLE SPEEDS

When people drive too fast, they have a harder time making sudden stops, have a reduced field of vision, and are more likely to get into severe crashes. Lowering vehicle speeds is one of the primary concerns in creating safe streets for all.



REDUCCIÓN DEL LÍMITE DE **VELOCIDAD**

SPEED LIMIT REDUCTION Correlating Vision Zero Actions: 3.1.2. 3.1.3, 3.2

Research has shown that lowering posted speed limits can lead to decreased rates of speeding.1 However, a comprehensive speed management program also looks at design changes that naturally lower driver speeds.



REDUCCIÓN DE ANCHO DE CARRIL

LANE WIDTH REDUCTION

Correlating Vision Zero Actions: 2.1, 2.2, 1.3

Lanes set at lower widths encourage slower speeds.² In most urban settings, a lane width of 10 feet is sufficient for regular vehicle traffic. Average car widths range from 5.5 feet for compact cars to 7 feet for SUVs and pickups. For designated truck, bus, and emergency vehicle routes, the outside lane may need to be wider.



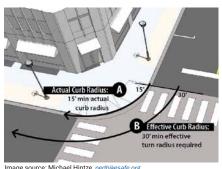
ACERA

SIDEWALK WIDTH EXPANSION

Correlating Vision Zero Actions: 2.1, 2.2,

1.3

AMPLIACIÓN DEL ANCHO DE LA When less space is allocated for travel lanes, more space can be used for pedestrian travel and amenities. The sidewalk space nearest to the curb can be used for street furniture, native landscaping, and street trees all of which visually narrow the roadway and encourage slower speeds. Adding pedestrian-scale lighting also improves visibility.



ESOUINA

REDUCCIÓN DEL ÁNGULO DE LA

RADIUS REDUCTIONS

Correlating Vision Zero Actions: 2.1, 2.2,

The radius of a corner, the sharpness of its angle, determines the speed that drivers will use for turning. A narrow turn radius, or a sharp corner angle, requires drivers to slow down to complete the turn. Narrowing the radius makes pedestrians more visible by bringing them farther into the driver sightline.

Image source: Michael Hintze, pedbikesafe, org



TRATAMIENTO DE LÍNEA CENTRAL ENDURECIDA

HARDENED CENTERLINE TREATMENT PAVEMENT

Correlating Vision Zero Actions: 2.1, 2.2

Left turn movements sometimes make wide turns, allowing for faster speeds and reducing the visibility of pedestrians in the crosswalk. "Hardening" the centerline with bollards or other barriers requires drivers to make left turns closer to right angles, slowing their speed and improving sight lines.3



mage source: Designing for Pedestrian Safety, pedbikesafe.org

CAMELLONES ELEVADOS

RAISED MEDIANS

Correlating Vision Zero Actions: 2.1, 2.2

Raised medians narrow the roadway, encouraging slower speeds, while providing opportunities for landscaping and stormwater management. These medians can be incorporated into pedestrian refuge islands making a safe place for pedestrians as they cross.

CICLISMO Y TRANSPORTE PÚBLICO **SEGUROS**

Las calles que acomodan y respaldan modos distintos al automóvil son vital es para lograr objetivos de equidad, salud y emisiones. Investigaciones han demostrado que ciclistas se sienten más cómodos en una infraestructura para bicicletas separada y protegida.

SAFER BIKING & TRANSIT

Streets that accommodate and support modes other than cars is vital for achieving equity, health, and emissions goals. Research has shown that bicyclists are more comfortable with separated, protected bike infrastructure.

CICLOVÍAS PROTEGIDAS

PROTECTED BIKE LANE

Correlating Vision Zero Actions: 2.1, 2.2

Protected bike lanes are separated from traffic by concrete curbs, planters, bollards, or parking. They have better safety outcomes than traditional bike lanes and feel more comfortable to bicyclists of all ages and abilities.⁴ They can be 1-way or 2-way, but 2-way cycle tracks require enhanced visibility and signage to warn drivers of counter-directional bike traffic.

Image source: SmithGroup



ISLA LATERAL AISLADA O COMPARTIDA PARA ABORDAR **AUTOBUSES**

SIDE BUS BOARDING ISLAND, FLOATING BUS STOPS OR SHARED BIKE & PED **BOARDING ISLAND**

Correlating Vision Zero Actions: 2.1, 2.2

Providing a side bus boarding island across from a bike lane reduces the conflict between bus and bike traffic.⁵ A shared bike & pedestrian boarding island narrows the dedicated bike lane width at the boarding island and brings it up to the island height, allowing for less roadway space utilization.6



Image source: REV Birmingham

CARRILES LATERALES FLEXIBLES

FLEXIBLE CURBSIDE LANES

Correlating Vision Zero Actions: 2.1, 2.2,

Flexible curbside lanes reflect the reality that roads see different traffic volumes and types of users at different times of day. Outside lanes may fluctuate between parking, standard travel, and designated bus lanes.



ESQUINA PROTEGIDA

PROTECTED INTERSECTION

Correlating Vision Zero Actions: 2.1, 2.2

In many cases, bike lanes merge with vehicle traffic in a mixing zone at intersections, increasing the likelihood of conflict. Protected intersections use corner islands to separate bike traffic throughout the intersection, sometimes with dedicated bike signals.⁷



CAJAS DE COLA PARA CICLISTAS

BIKE TWO-STAGE TURN QUEUE BOXES

Correlating Vision Zero Actions: 2.1, 2.2

When protected intersections are not feasible, queue boxes provide a visible, dedicated space for bicyclists to wait while making a left turn in two phases.8



Image source: City of Minneapolis

PARADAS DE TRANSPORTE PÚBLICO MEJORADAS

ENHANCED TRANSIT STOPS

Correlating Vision Zero Actions: 2.1, 2.2

Providing high-quality shelters along with bike racks, travel time screens, shade, security light elements, trash cans, additional seating, charging stations, and placemaking elements can make a transit stop much more inviting and usable.

CRUCES PEATONALES SEGUROS

Conflictos a menudo ocurren cuando los peatones se cruzan en el camino de vehículos. Décadas de políticas y normas sociales han reforzado la idea de que los automóviles tienen un derecho primario a la calles, por lo que se debe tener especial cuidado para ahora reforzar áreas exclusivas de espacio peatonal.

SAFER PEDESTRIAN CROSSINGS

Conflict often occurs when pedestrians cross the path of vehicles. Decades of policy and social norms have reinforced the idea that cars have a primary right to the roadway, so special care must be now taken to reinforce areas of dedicated pedestrian space.



Image source: NACTO

CRUCES PEATONALES A MITAD DE CUADRA

ADDITION OF MID-BLOCK CROSSINGS

Correlating Vision Zero Actions: 2.1, 2.2, 1.3

On many major arterials, crosswalks are not spaced close enough together to allow for convenient crossing. Studies show that pedestrians are willing to walk for 3 minutes to reach a crosswalk, otherwise they will cross at other undesignated locations. Adding more crosswalks to a corridor reduces this practice and adds more spaces specifically marked for pedestrians.



SEÑAL INTERMITENTE PARA PEATONES (RRFB)

RAPID RECTANGULAR FLASHING BEACON (RRFB)

Correlating Vision Zero Actions: 2.1, 2.2

On corridors with moderately high volumes and speeds, RRFBs can be used to improve compliance with yielding to pedestrians. ¹⁰ The warning lights are activated by a pedestrian approaching the crosswalk, and drivers must stop for the length of the pedestrian's crossing.



mage source: Mike Cynecki, <u>EHWA</u>

SEÑAL HÍBRIDA PARA PEATONES (PHB)

PEDESTRIAN HYBRID BEACON (PHB)

Correlating Vision Zero Actions: 2.1, 2.2

On corridors with very high volumes and speeds, PHBs can be used to warn and control traffic at pedestrian crossings.¹¹ Drivers must stop during the yellow to red lighting sequence and may proceed once the device turns dark again.



SEÑALES VIALES PARA PEATONES

IN-STREET PEDESTRIAN SIGNS (R1-6 OR GATEWAY)

Correlating Vision Zero Actions: 2.1, 2.2

These in-street signs have been shown to be effective at slowing cars and increasing yield rates for pedestrian crossings. 12 They reinforce pedestrian space, remind drivers of local laws, and encourage slower speeds.



EVITAR CARRILES DE VUELTA AISLADOSL

AVOID CHANNELIZED RIGHT TURNS (SLIP LANES)

Correlating Vision Zero Actions: 2.1, 2.2, 1.3

Slip lanes allow drivers to make right turns separate from the main intersection, often controlled by a stop or yield sign. These wide turns encourage high speeds and increase the amount of roadway a pedestrian must cross at an intersection. 13



SEMÁFORO CON VENTAJA PARA PEATONES (LPI)

LEADING PEDESTRIAN INTERVAL (LPI)

Correlating Vision Zero Actions: 2.1, 2.2

At these intersections, the walk light for the pedestrian crossing is activated a few seconds before the green light for the corresponding vehicle traffic. This allows pedestrians to establish themselves in the intersection, increasing their visibility and reducing the likelihood of crashes from turning cars.14



Image source: FHWA

SEÑALES DE CUENTA **REGRESIVA**

COUNTDOWN SIGNALS

Correlating Vision Zero Actions: 2.1, 2.2

All signalized pedestrian crossings should be programmed with countdown signals, which provide information about time remaining in the cycle and help pedestrians determine when to proceed.15



VUELTAS A LA IZQUIERDA RETRASADOS

LAGGING LEFT TURNS

Correlating Vision Zero Actions: 2.1, 2.2

When a protected left turn signal is provided at the beginning of a cycle, more opportunity for conflict exists between left turners and crossing pedestrians. Lagging left turns allow pedestrians to cross at the beginning of a cycle, then reserve the protected left turn for the end of the cycle.16



NO DAR VUELTA EN ROJO

NO TURN ON RED

Correlating Vision Zero Actions: 2.1, 2.2

Allowing turns on red creates the potential for conflict between rightturning vehicles and pedestrians crossing perpendicular to them.²⁰



ISLAS PARA REFUGIO DE PEATONES

PEDESTRIAN REFUGE ISLANDS

Correlating Vision Zero Actions: 2.1, 2.2,

These allow pedestrians to cross one direction of travel at a time.21 Offset crosswalks at refuge islands require the pedestrian to turn towards oncoming traffic before crossing. Refuge islands, like regular medians, can also narrow the roadway and therefore slow traffic.



EXTENSIÓN DE ACERA CURB EXTENSIONS

Correlating Vision Zero Actions: 2.1, 2.2,

1.3

Curb extensions serve several functions: reducing the roadway distance a pedestrian must cross, increasing the visibility of pedestrians to approaching drivers, and narrowing the roadway to encourage lower speeds.¹⁷ They can be inserted permanently using concrete or temporarily using paint, bollards, planters, and other materials.



TRATAMIENTO DE **CRUCE PEATONAL**

CRUCE PEATONAL

TIPO CEBRA

CROSSWALK PAVEMENT TREATMENT

Correlating Vision Zero Actions: 2.1, 2.2

Using a distinctive texture, material, or color to demarcate the crosswalk improves its prominence and adds to an area's sense of place.18



CONTINENTAL CROSSWALK STRIPING

Correlating Vision Zero Actions: 2.1, 2.2

Also known as "zebra" striping, these thick repeated bars are more visible and prominent than the traditional parallel lines.19

Image source: SFMTA

CREACIÓN DE LUGAR

Las calles constituyen una gran parte del espacio público de una ciudad y tienen el potencial de ser mucho más que una vía de paso. Estas intervenciones pueden generar orgullo en la comunidad y crear espacios para la permanencia y la conexión.

PLACEMAKING

Streets make up a huge portion of public land in a city, and have the potential to be much more than just a way of passing through. These interventions can build community pride and create spaces for lingering and connection.



INFRAESTRUCTURA REFRESCANTE

COOLING INFRASTRUCTURE

Correlating Vision Zero Actions: 2.1, 2.2

Cool pavement, drought-resistant lanscaping, and other cooling infrastructure address the ongoing issue of warming cities and improve comfort and functionality. While research is still being conducted, cooling infrastructure should be considered



PAISAJE URBANO-LUCES,

LIGHTING, LANDSCAPE, AMENITIES

Correlating Vision Zero Actions: 2.1, 2.2

Adding street trees, street lighting, VEGETACIÓN, INSTALACTIONES benches, trash cans, bike racks, and other amenities creates an enhanced sense of place and reinforces a sense of pedestrian space.



CENTROS DE TRANSPORTE PÚBLICO

MOBILITY HUBS

Correlating Vision Zero Actions: 2.1, 2.2

These multimodal spaces bring together transit stops, bike parking, micromobility like scooters, ride share, EV charging, and other transportation amenities. Effective mobility hubs often incorporate art, landscaping, and other placemaking elements.



SEÑALIZACIÓN

WAYFINDING

Correlating Vision Zero Actions: 2.1, 2.2

Effective wayfinding simply and clearly provides directions to important landmarks and amenities. Auto-oriented wayfinding may point to parking areas, while bike-oriented wayfinding can direct riders to appropriate paths.



source: Denver Public Art

ARTE PÚBLICO

PUBLIC ART

Correlating Vision Zero Actions: 2.1, 2.2, 4.3

Public art often celebrates and reinforces the history and culture of a neighborhood, fostering a sense of pride and ownership. Municipal programs can connect local artists with businesses seeking beautification.



NUESTRO FUTURO ESTE DE LAS VEGAS

NOTAS FINALES / ENDNOTES

- 1 NACTO. "Speed Limit Changes Have Big Impacts." City Limits, 2020, pp. 22–26.
- 2 NACTO. "Lane Width." Urban Street Design Guide, 2013
- 3 https://www.virginiadot.org/programs/resources/BikePed/Left-Turn_Hardening_Brochure-acc11012021.pdf
- 4 https://www.peopleforbikes.org/reports/protected-bikes-lanes-101
- 5 NACTO. "Side Boarding Island Stop." Transit Street Design Guide, 2016
- 6 NACTO. "Shared Cycle Track Stop." Transit Street Design Guide, 2016
- 7 NACTO. "Protected Intersections." Don't Give Up at the Intersection, 2019
- 8 NACTO. "Two-Stage Turn Queue Boxes." Urban Bikeway Design Guide, 2014
- 9 NACTO. "Crosswalks and Crossing." Urban Street Design Guide, 2013
- 10 https://safety.fhwa.dot.gov/ped_bike/step/docs/TechSheet_RRFB_508compliant.pdf
- 11 https://safety.fhwa.dot.gov/provencountermeasures/ped_hybrid_beacon.cfm
- 12 https://safety.fhwa.dot.gov/ped_bike/step/docs/cs_michigan110518.pdf
- https://t4america.org/2019/11/05/safety-week-slip-lanes-would-never-exist-if-we-prioritized-safety-over-speed/
- 14 https://safety.fhwa.dot.gov/ped_bike/step/resources/docs/fhwasa19040.pdf
- 15 http://www.pedbikesafe.org/pedsafe/countermeasures_detail.cfm?CM_NUM=46
- https://www.cmap.illinois.gov/documents/10180/371771/complete+street+select+tr eatments+15+-+lead+ped+interval+-+turn+restrictions.pdf/fa182801-1427-43b5-b00c-6223d0c013bf#:~:text=Lagging%20left%20turn%20provides%20pedestrian,a%20protected%20 left%2Dturn%20phase.&text=To%20provide%20adequate%20crossing%20times,and%20motorists%20 at%20signalized%20intersections.&text=Low%2Dcost.,signalized%20intersections%20more%20 pedestrian%2Dfriendly.
- 17 NACTO. "Curb Extensions." Urban Street Design Guide, 2013
- 18 http://www.pedbikesafe.org/pedsafe/countermeasures_detail.cfm?CM_NUM=39
- 19 http://www.pedbikesafe.org/pedsafe/countermeasures_detail.cfm?CM_NUM=4
- 20 https://safety.fhwa.dot.gov/saferjourney1/library/countermeasures/44.htm#:~:text=Prohibiting%20right%20 turns%20on%20red,and%20places%20where%20children%20cross.
- 21 https://safety.fhwa.dot.gov/ped_bike/step/docs/techSheet_PedRefugeIsland2018.pdf



HERRAMIENTAS POR BLOQUE DE CALLE

IMPROVEMENT BY BLOCK

Bruce Easter Maryland Pkway 3 St Ave Responsible mensions **D** EE EE EE jé OIIIII , britaire 開開 Nodos **Espacios** Otros Comercios Instituciones Lotes Comerciales Verdes **Edificios** Paseo Commercial Institutional Bonanza Commercial Corridor Green Other Buildings Buildings Nodes Parcels Spaces Buildings

Corridor Mixed-Use Nodes

- 1) Mariana's (Eastern and Bonanza)
- 2) Desert Pines
- 3) Smith's (Pecos and Bonanza)
- 4) Cardenas (Lamb and Bonanza)
- 5) Kmart Site (Nellis and Bonanza)

Civic and Community Centers

- C) East Las Vegas Library
- E) The Animal Foundation
- J) Desert Pines

Educational Institutions and Schools

- A) Hewetson Elementary School
- B) Robert Lunt and Arturo Cambeiro Elementary Schools
- D) Strong Start Academy
- K) Desert Pines High School
- L) Mater Academy East Las Vegas

Government Services and Facilities

- F) Fire Station 8
- H) City of Las Vegas East Service Center
- I) Clark County Family Courts and Services Center
- P) Fire Station 108
- U) Division of Welfare Office and Salvadorian

Parks and Trails

- G) Freedom Park
- S) Harris Marion Park
- M) Oran Gragson Elementary School
- N) Equipo Academy
- O) Laborer's Training Center
- Q) Elbert Edwards Elementary School
- R) Mater Bonanza Charter School
- T) Dell H. Robison Middle Schooll



Corridor Mixed-Use Nodes

- 1) Mariana's (Eastern and Bonanza)
- 2) Desert Pines
- 3) Smith's (Pecos and Bonanza)
- 4) Cardenas (Lamb and Bonanza)
- 5) Old Kmart Site (Nellis and Bonanza)

Civic and Community Centers

- C) East Las Vegas Library
- E) The Animal Foundation
- J) Desert Pines Community Center

Educational Institutions and Schools

- A) Hewetson Elementary School
- B) Robert Lunt and Arturo Cambeiro Elementary Schools
- D) Strong Start Academy
- K) Desert Pines High School
- L) Mater Academy East Las Vegas

Government Services and Facilities

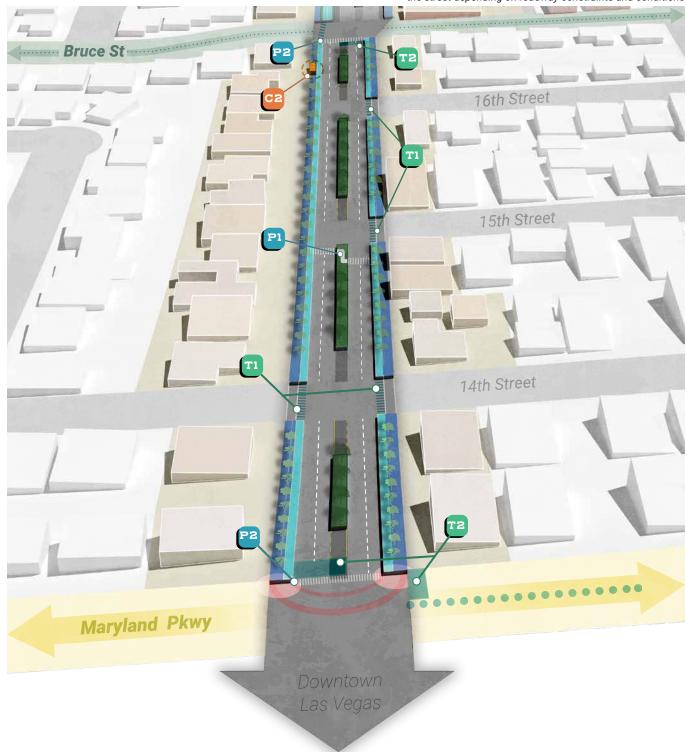
- F) Fire Station 8
- H) City of Las Vegas East Service Center
- I) Clark County Family Courts and Services Center
- P) Fire Station 108
- U) Division of Welfare Office and Salvadorian Consulate

Parks and Trails

- G) Freedom Park
- S) Harris Marion Park
- M) Oran Gragson Elementary School
- N) Equipo Academy
- 0) Laborer's Training Center
- Q) Elbert Edwards Elementary School
- R) Mater Bonanza Charter School
- T) Dell H. Robison Middle School

MARYLAND PKWY - BRUCE ST

The following concepts are subject to change throughout the final design process. (I.e. the cycle track may be located on the south or noth side of the street depending on roadway constraints and conditions



MEJORAS IMPROVEMENTS



Cruces Peatonales a

Mitad de Cuadra



Centro de Tránsito

Mobility Hubs



Cruces Peatonales Tipo Cebra



Continental crosswalk striping



Mejoras a Paradas de Transporte Público

Enhanced Transit Stops



Tratamiento de Cruceros Ciclistas sobre el Pavimento

Bike crossing pavement treatment



Expansión de la Acera Sidewalk expansion





Camellón Ajardinado Landscape Median



Cajas de Cola para Ciclistas

Cl

Bike two-stage turn queue boxes

2) BRUCE ST - EASTERN AVE





Puertas de Entrada

Gateways

Nodos
Comerciales
Commercial
Nodes
Servicios
Services

Nodos
Instituciones
Institutional
Services
Institutional
In



EASTERN AVE - MOJAVE RD



MEJORAS IMPROVEMENTS

Cruces Peatonales a Mitad de Cuadra

Mid-block crossings

Cruces Peatonales Tipo Cebra

Continental crosswalk striping

Centro de Tránsito

Transit Hubs

C1

Mejoras a Paradas de Transporte Público

P2

Enhanced Transit Stops

Tratamiento de Cruceros Ciclistas sobre el Pavimento T1

Bike crossing pavement treatment

Cajas de Cola para Ciclistas

Bike two-stage turn queue boxes

Ampliación de la Acera Sidewalk expansion

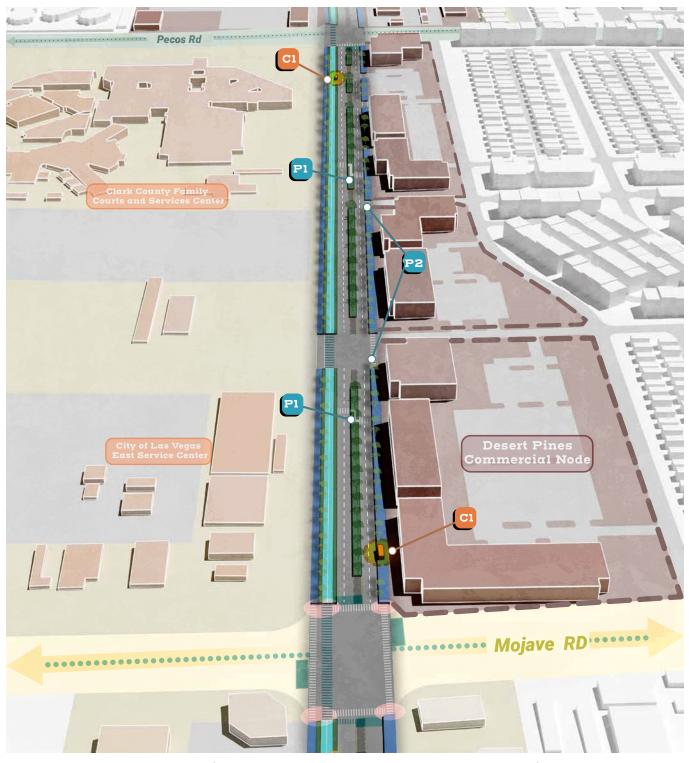
Ciclovías Protegidas Protected Bike Lanes

Camellón Ajardinado Landscape Median





MOJAVE RD - PECOS RD





Intersection

Puertas de Entrada

Gateways

BIENES ASSETS

Nodos

Comerciales Commercial



Green Spaces

Instituciones Institutional

Espacios Verdes

CARACTERÍSTICAS OTHER FEATURES

Via Arterial Principal Major Arterials

Via Arterial Secundaria Car Collectors

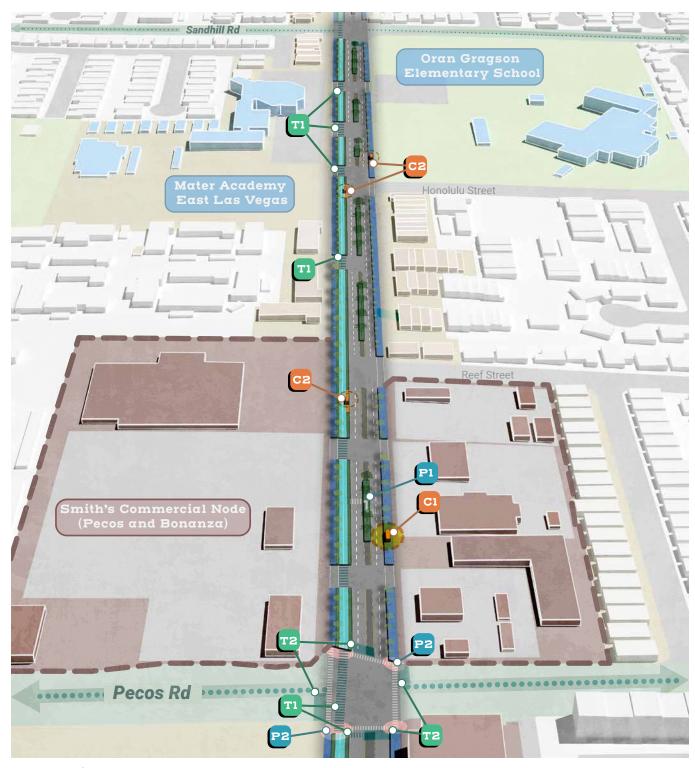
Calle Collectora **Bike Collectors**



Carriles para Vueltas Turn Lanes

Carril de Estacionamiento Parking Lane

PECOS RD - SANDHILL RD



MEJORAS IMPROVEMENTS

Cruces Peatonales a

Mitad de Cuadra

Mid-block crossings

Cruces Peatonales Tipo Cebra P2

Continental crosswalk striping

Centro de Tránsito

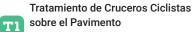
C1

Transit Hubs



Mejoras a Paradas de Transporte Público

Enhanced Transit Stops



Bike crossing pavement treatment

Cajas de Cola para Ciclistas

Expansión de la Acera Sidewalk expansion



Camellón Ajardinado Landscape Median



Bike two-stage turn queue boxes

(6)

SANDHILL RD - LAMB BLVD





Intersection

Puertas de Entrada

Gateways

Nodos Comerciales Commercial Nodes Nodes Institutional

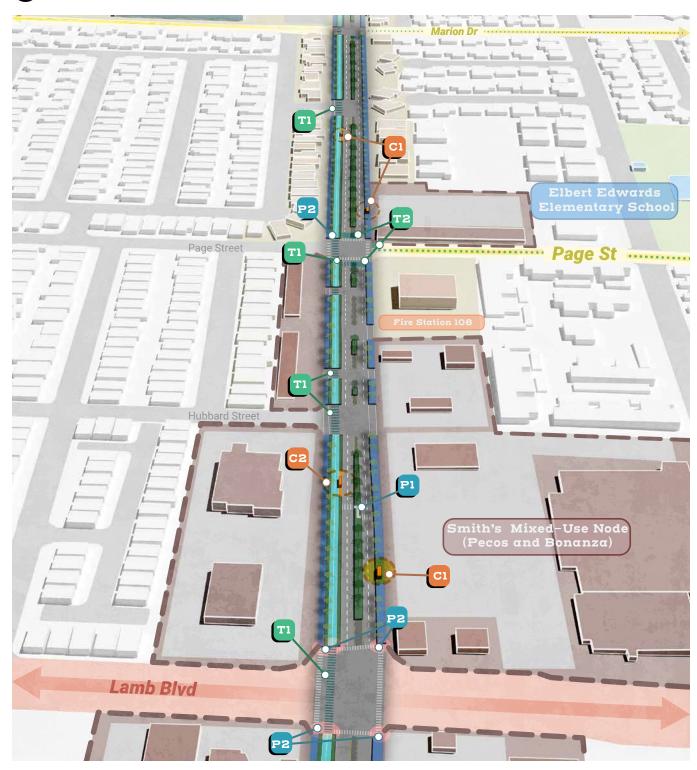
Servicios
Services Gr

Espacios Verdes Green Spaces

Via Arterial Principal Major Arterials Car Collectors Bike Collectors Carriles para Vueltas Turn Lanes OTHER FEATURES Via Arterial Secundaria Car Collectors Otras Ciclovías Other Bike Trails Carril de Estacionamiento Parking Lane

A-34

7 LAMB BLVD - MARION DR



MEJORAS IMPROVEMENTS

Cruces Peatonales a

Mitad de Cuadra

Mid-block crossings

Centro de Tránsito

Cruces Peatonales Tipo Cebra

P2

Continental crosswalk striping

Tratamiento de Cruceros Ciclistas sobre el Pavimento

Bike crossing pavement treatment

Ciclovías Protegidas
Protected Bike Lanes

Expansión de la Acera

Sidewalk expansion

C

Mejoras a Paradas de Transporte Público

Enhanced Transit Stops

TZ

Cajas de Cola para Ciclistas

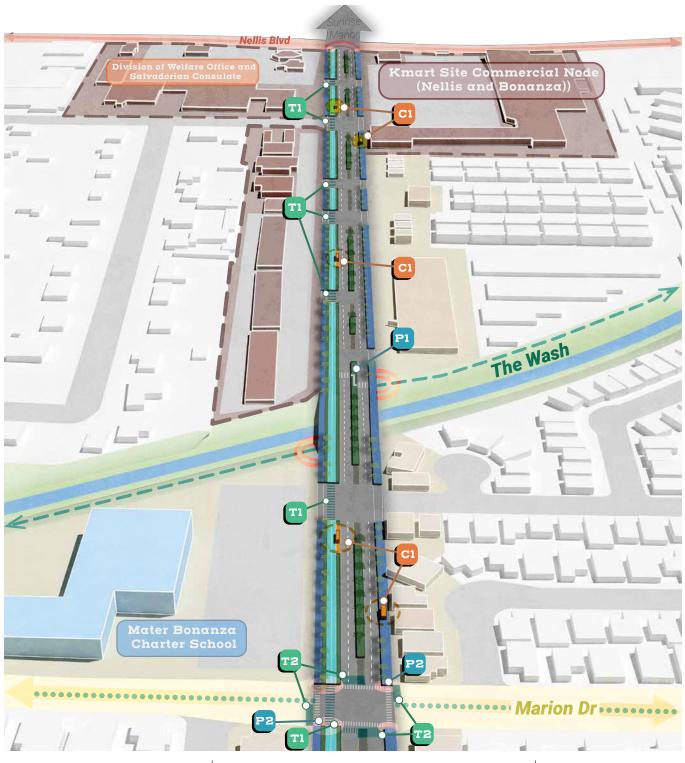
Bike two-stage turn queue boxes

Camellón Ajardinado
Landscape Median



Transit Hubs Enhanced

(8) **MARION DR - NELLIS BLVD**





Puertas de Entrada

Gateways







