



# MILITARY MULTIMODAL ACCESS STRATEGY



Final Report



December 2019



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# Executive Summary

The San Diego region is home to the largest concentration of military assets in the world, supporting a robust ecosystem of over 384,000 active duty military personnel, civilian employees, and veterans. This defense cluster generates significant economic benefit for the region, but also adds considerable demand on the transportation network, particularly near military facilities. Finding solutions has been difficult due in part to:

- Legal/Policy framework between military installations and adjacent jurisdictions
- Leadership and staff turnover to maintain awareness and utilization of alternative commute programs
- Location of military facilities and housing
- Limited commute options that support military needs

Added demand on the transportation network exacerbates traffic-related impacts in the region affecting national security, increasing greenhouse gas emissions, and impacting livability. Collaboration among stakeholders is critical to identifying solutions. To address these challenges and ensure the region can sustain and support future military growth, the San Diego Regional Military Working Group (MWG) developed a Military Multimodal Access Strategy (Strategy). Based on the data and input collected, the Strategy aims to:

- Develop a process to collaborate and prioritize transportation improvements to support both military and local needs
- Identify access improvements that benefit multiple stakeholders
- Develop recommendations and next steps to guide the MWG
- Serve as a model for other regions to coordinate transportation solutions with the military or other employers with dispersed campuses.

## What’s in this document?

The **Project Inventory** was compiled through stakeholder interviews, a literature review, a stakeholder workshop, Project Development Team input, and the sessions with MWG. The inventory represents the multimodal transportation improvements (infrastructure projects and programs) needed to improve access to installations throughout the region. A set of **Top Projects** was developed to further identify which projects reflect the MWG’s mission, vision, and values. These top projects are not prioritized but could be reassessed as funding opportunities become available. In addition, a dynamic project inventory (**Screening Tool**) was developed to enable stakeholders to sort the project list based on key variables—such as project cost or relevant jurisdiction—to improve strategic collaboration, funding opportunities, and partnerships.

**Table 1. Strategy Snapshot**

	Freeway Highway		Local Street / Road		Rail		Active Transportation		Transit		Micromobility		TDM / Land Use	
	Total Type	Total Cost	Total Type	Total Cost	Total Type	Total Cost	Total Type	Total Cost	Total Type	Total Cost	Total Type	Total Cost	Total Type	Total Cost
<b>North</b>	14	\$10,766	7	\$25	7	\$7,617	3	\$36	7	\$1,215	-	-	-	-
<b>East</b>	1	\$178	-	-	-	-	1	\$0.2	3	\$363	-	-	-	-
<b>Central</b>	17	\$7,951	4	\$7	-	-	8	\$1,571	10	\$6,927	3	\$10	5	-
<b>South</b>	22	\$6,757	24	\$6,116	2	\$42	41	\$316	26	\$15,121	4	\$68	-	-
<b>Region-wide</b>	1	\$0.3	-	-	-	-	-	-	2	\$735	-	-	-	-

*Costs in 2019\$, millions. Although projects may fit into more than one category they were classified by their primary elements. TDM projects were not costed.*



A comprehensive framework of **Regional Strategies and Actions** was identified to guide the MWG's future decision making. The key strategies and summarized actions are briefly outlined below.

## Regional Strategies

### Strategy #1: Support Agency Collaboration

The MWG should align the efforts of project supporters and problem solvers to address military multimodal access challenges in various sub-regions of San Diego.

#### Recommended Actions:

- Integrate military installation representatives into the Project Development Teams and committees for local projects that may impact the military's multimodal access
- Create a shared calendar that highlights known grant cycles and major planning document schedules

### Strategy #2: Advocate for MWG Projects

The MWG projects would benefit base access and personnel mobility but are often "long-term" improvements due to their regional nature. The MWG's projects need advocacy to accelerate implementation.

#### Recommended Actions:

- Regularly present MWG priorities to all levels of government including local councils, SANDAG Regional Planning Committee, SANDAG Board of Directors, state agencies, and federal agencies
- Package projects in ways that can be easily communicated to relevant stakeholders
- Push for MWG priority projects to be elevated in each agency's list of priorities

### Strategy #3: Pursue Funding from Outside Sources

Funding is a major component of implementing the MWG's priority projects and is often supplemented by grants or funds from regional, state, and/or federal agencies. By partnering to access available funding, the MWG can help advance projects more quickly.

#### Recommended Actions:

- Have a standing grant update item on MWG meeting agendas
- Form a subcommittee with local partners to coordinate when grant opportunities arise
- Provide resources to develop a list of high priority projects with necessary details to be "grant ready"
- Provide letters of support for MWG projects seeking grant funding

### Strategy #4: Maintain MWG Project Inventory

Maintaining quality project data is critical for the MWG to quickly respond to new funding opportunities as they arise.

#### Recommended Actions:

- Assign "inventory coordinator" from MWG to take responsibility of the list
- Update the list with new projects and remove completed projects periodically
- Create new "project priority" list prior to SANDAG Regional Plan updates

# Introduction

## Background

The San Diego region is home to the largest concentration of military assets in the world, employing over 140,000 active duty military personnel and civilian employees and 241,000 veterans and retirees. This defense cluster represents one of every five jobs in the region and 20% of San Diego's gross regional product.<sup>1</sup>

The breadth of the military presence in San Diego extends beyond facility boundaries; military families are intimately intertwined with residential, educational, and other core communities and economic sectors throughout the region.

With continuous yearly growth and the Navy's plan to homeport an additional five ships in the region in FY 2020, traffic congestion surrounding military facilities is projected to increase.<sup>2</sup> Traffic congestion impacts the demand on the regional and local transportation network; contributes to the region's greenhouse gas (GHG) emissions; and affects the military's ability to move goods, equipment, and personnel that are essential to national security. Improvements that address local and regional mobility not only benefit local jurisdictions that are impacted by military congestion, but the military's mission readiness and resilience. Partnerships among impacted stakeholders are essential to facilitate strategic infrastructure and program improvements to address these regional issues.



Image Credit: SDMAC 2018 Military Economic Impact Study

## The Military Multimodal Access Strategy

As the region's Metropolitan Planning Organization (MPO) and Regional Transportation Planning Agency, the San Diego Association of Governments (SANDAG) is uniquely positioned to bring together stakeholder representatives from public transportation agencies, local jurisdictions, and military facilities to address shared goals for regional mobility. Adopted in 2015, **San Diego Forward: The Regional Plan** (Regional Plan) charts a course for how land use decisions and transportation investments can provide increased travel choices, meet future travel demand, and lower GHG emissions. The Military Multimodal Access Strategy (Strategy) is a near-term action identified in the Regional Plan to enhance planned regional transportation investments with supporting regional and local projects, operational improvements, and programs that facilitate access to the region's diverse and dispersed military facilities. Finding solutions to these mobility challenges has been difficult due in part to:

- Legal/Policy framework between military installations and adjacent jurisdictions
- Leadership and staff turnover to maintain awareness and utilization of alternative commute programs
- Location of military facilities and housing
- Limited commute options that support military needs

To address these challenges and ensure the region can sustain and support future military growth, the San Diego Regional Military Working Group (MWG) developed the Strategy which aimed to achieve the following:

- Develop a process to collaborate and prioritize transportation improvements to support both military and local needs
- Identify access improvements that benefit multiple stakeholders
- Develop recommendations and next steps to guide the MWG
- Serve as a model for other regions to coordinate transportation solutions with the military or other employers with dispersed campuses



# History of the Regional Military Coordination

SANDAG created a framework to guide collaboration among the military, local jurisdictions, and transportation agencies through a Memorandum of Agreement (MOA) between the U.S. Department of Defense and SANDAG (see **Appendix J**). The MOA includes the addition of a Department of Defense advisory position on the SANDAG Board of Directors to provide input on issues of mutual interest. The MOA, established in 1980, was updated in 1986 and again in 2017 to reflect the formation of the San Diego Regional MWG and changing conditions in the region.

## San Diego Regional Military Working Group

Given continued military growth and influence in the region, SANDAG established the MWG in 2013 to address regional issues as they relate to the military. The MWG includes representatives from all military branches with installations in the region, adjacent local jurisdictions, transit agencies, as well as the Port of San Diego and SANDAG (**Table 2**). The MWG is a forum for these stakeholders to coordinate programs and address issues of mutual concern.

## Other Regional Stakeholders

In addition to the stakeholders on the MWG roster, the San Diego Airport Authority and California Department of Transportation (Caltrans) District 11 are responsible for land and infrastructure adjacent to military facilities or impacted by military operations.

SANDAG and the Military Working Group’s 2018 Workshop was attended by representatives from the region’s military installations, local governments, transportation agencies, SANDAG staff, non-profits, and the general public. Attendees discussed transportation projects that could improve mobility in and around military facilities. Communication and collaboration between stakeholders is critical to developing consensus on a cohesive vision for the region.

**Table 2**

<b>Military Working Group Representatives</b>
<b>Marine Corps Installation West</b>
<b>Navy Region Southwest</b>
<b>Navy Facilities Engineering Command</b>
<b>Marine Corps Recruitment Depot</b>
<b>U.S. Coast Guard San Diego Sector</b>
<b>City of Oceanside</b>
<b>City of San Diego</b>
<b>City of Coronado</b>
<b>City of National City</b>
<b>City of Imperial Beach</b>
<b>County of San Diego</b>
<b>Port of San Diego</b>
<b>Metropolitan Transit System (MTS)</b>
<b>North County Transit District (NCTD)</b>
<b>SANDAG</b>



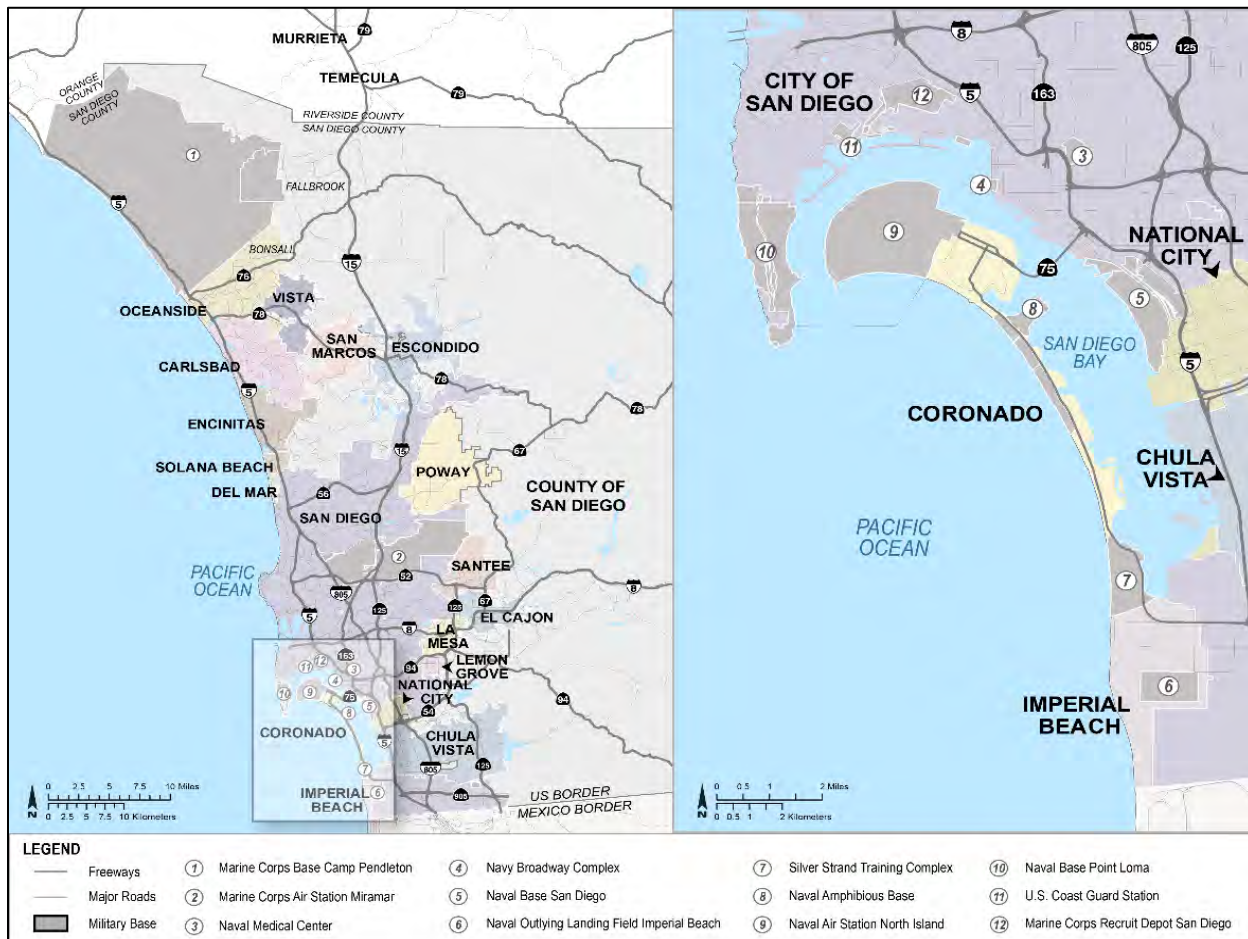
# Project Area

The Strategy encompasses the entire San Diego region (Figure 1). The Navy, Marine Corps, and Coast Guard each oversee military installations within San Diego County. The majority of the 12 military facilities in the region are clustered in and around downtown San Diego, largely along the region’s coastline. In 2018, an estimated 57,000 sailors and Coast Guard personnel were stationed in San Diego.<sup>3</sup> Thousands of civilian employees support these downtown facilities and add to an already congested urban center. Camp Pendleton, which has a daily population of 80,000 personnel is located along the coast north of the City of Oceanside and while less urban than downtown San Diego, is also constrained by limited access.<sup>4</sup> In addition to geographic limitations, factors including policy constraints and a housing shortage cause many military employees and supporting personnel to live far from these facilities, exacerbating long daily commutes. This challenge is shared by employees throughout the region; the resulting congestion, as people commute to concentrated employment centers, impacts the regional and local transportation networks, including the streets and highways that provide access to military facilities.

**Table 3**

Major military installations in the San Diego Region
Marine Corps Base Camp Pendleton (Camp Pendleton)
Marine Corps Air Station Miramar (Miramar)
Marine Corps Recruit Depot San Diego (MCRD)
Naval Base Coronado (NBC)
Naval Base Point Loma (NBPL)
U.S. Coast Guard
Naval Base San Diego (NBSD)

**Figure 1. Project Area**





## Growth

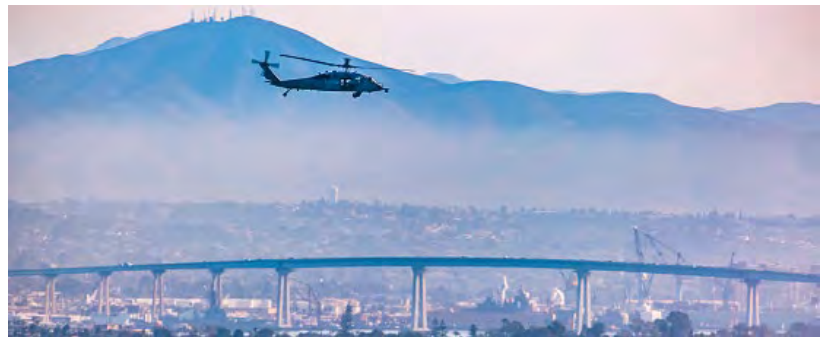
Today, the region is home to more than 3.2 million people. Projected growth of the general population and the military population will have a significant impact on the regional transportation network.

### Forecasted Regional Growth

The SANDAG Regional Growth Forecast, adopted by the SANDAG Board of Directors in 2013, projects that the region’s population will grow by nearly a million people by 2050.<sup>5</sup> This growth will lead to approximately 460,000 more jobs and over 325,000 more housing units by 2050. To accommodate this growth, SANDAG is planning for infill development and intensification of existing land uses within urban communities and along key transportation corridors. The Regional Plan envisions the region will create more compact communities in the western third of the San Diego region, which is where military installations are located.

### Military Growth

The region’s military community – including personnel, contractors, and their families – is projected to continue growing based on national defense policies and plans. The U.S. Department of Defense (DoD) is increasing the military workforce in the San Diego region as a part of its “Rebalance to the Pacific” strategy, which will focus on expanding and intensifying U.S. military presence in the Asia-Pacific



region by moving forces, including ships, from the Atlantic to the Pacific. Due to its extensive military assets, the San Diego region will play an important part in executing this strategy. Today, one out of every six sailors and one out of every four marines in the nation are stationed in San Diego, and the total number of military personnel stationed in the region is projected to grow to 151,000 in FY 2020 (**Table 4**).<sup>6</sup>

As a result of “Rebalance to the Pacific,” the region’s military sector and related industries will experience significant growth. The addition of just one of the at least three aircraft carriers planned to homeport in San Diego as part of this effort is expected to generate more than \$800 million, and typically requires 3,200 personnel.<sup>7</sup> Furthermore, the region’s shipbuilding and repair contractors will increase to support the demand for new ships in addition to upgrading older vessels and performing ongoing maintenance of an expanding West Coast ship fleet.

**Table 4.** Number of military personnel for each military branch in the region, FY 2017–2020

Military Branch	2017	2018	2019e	2020f
Navy	53,489	57,041	56,431	63,774
Marines	51,877	53,451	52,070	52,056
Department of Defense Civilians	20,356	20,518	23,280	23,500
Department of Defense Reserves	7,348	7,435	7,405	7,437
Coast Guard	717	820	1,067	1,080
VA	3,634	2,938	3,059	3,072
<b>TOTAL</b>	<b>137,421</b>	<b>142,203</b>	<b>143,312</b>	<b>150,919</b>

e = Estimated f = Forecasted

Source: SDMAC MEIS (2018), SDMAC MEIS (2019)

## Military Commutes

A robust supply chain of federal employees, military personnel, military families, civilian employees, private contractors, and veterans reside throughout the region and even outside of it. Understanding the commuting patterns of the region’s military community is key to evaluating the existing regional travel demand. Commuting patterns are influenced by various factors including housing, available mobility options, cost, convenience, travel time, and parking.

### Housing

Department of Defense policy outlines that local housing markets need to support military housing needs within adjacent communities. However, the San Diego region housing supply is not keeping pace with the demands of increasing military personnel. Military housing is limited and does not fully meet the community’s housing needs. Although on-base housing is available aboard ships and in military barracks for lower-ranking personnel, basic housing allowance permits higher ranking personnel and their families to live within the local community. There is military family housing on some bases as well as supported throughout the local communities that vary in distance to the military installations in the region.

Higher-ranking personnel are provided a basic housing allowance, which can be used to secure housing in the local housing market. However, a housing shortage in the region as well as high housing costs present a challenge for military personnel as well as civilian contractors. Military personnel often look for housing in areas further from their place of work where housing may be more readily available or affordable. Based on iCommute Commuter Survey data, a large number of military personnel live in jurisdictions in East and South San Diego County, and in Riverside and Orange counties (**Figure 2**). This dispersed housing results in longer commutes and fewer mobility options.

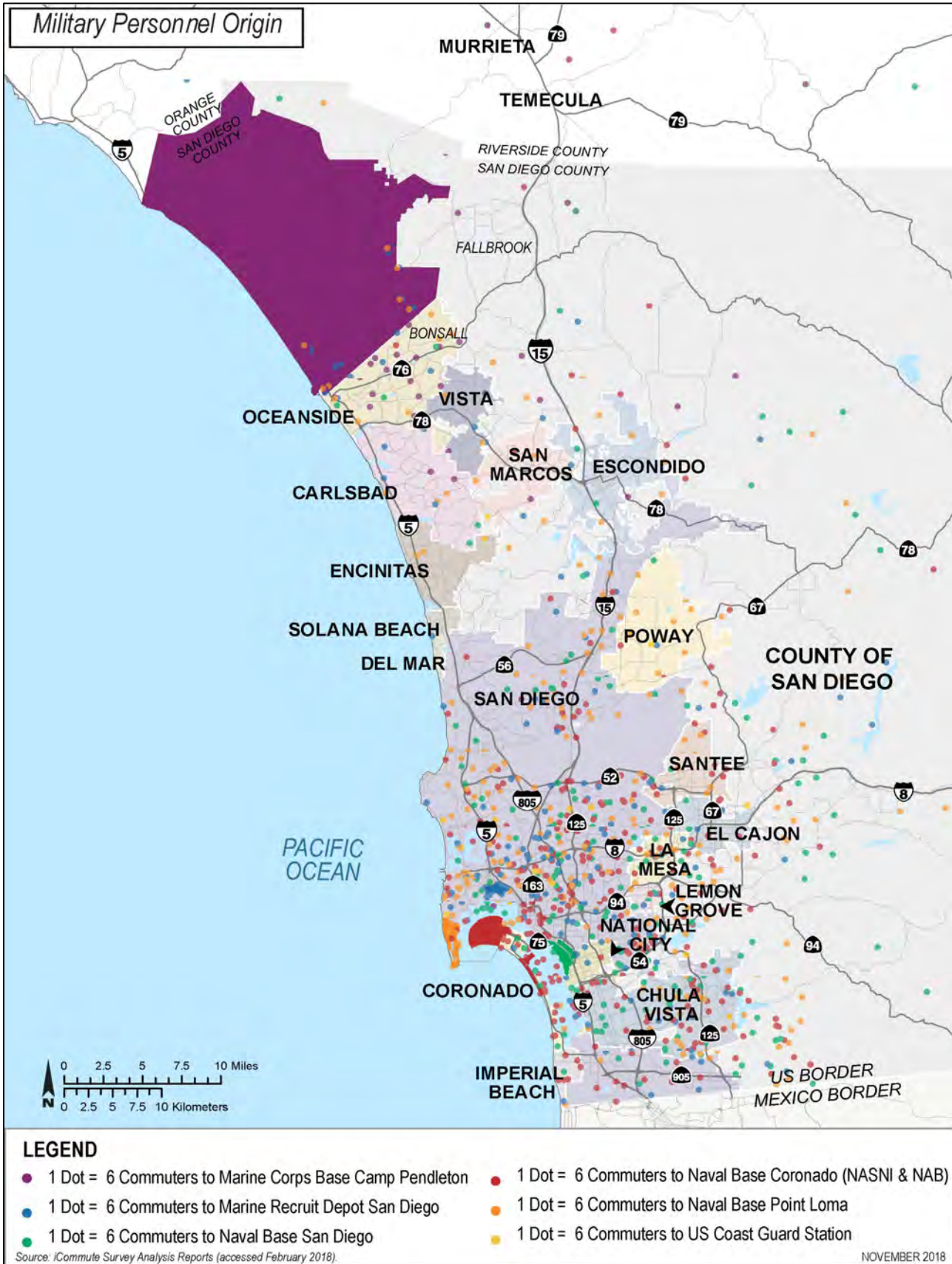
While providing more on-base or base-adjacent housing will alleviate some commutes, increased travel options and alternative commute programs can lessen reliance on, and the cost of, personal vehicles while reducing congestion. Policy constraints, a strong personal vehicle culture, and the limitations of the existing public transportation system are some of the challenges to alternative commutes for the military community. The SANDAG iCommute program – described in the following section – works with military leadership to address these challenges and promote more sustainable commute options, including pilot programs focused on the military.

### Challenges to Housing Enlisted Personnel

In 2009, Naval Base San Diego built large scale, privatized luxury on-base housing for unaccompanied senior ranking sailors. The Pacific Beacon project initially struggled because its target market preferred to live off base. This was compounded by turnover caused by frequent deployments, completed enlistments, and transfers. The Navy began leasing to junior sailors; although the higher rent was a barrier to their lower salaries, the project eventually gained momentum and exceeded its target occupancy rate. Pacific Beacon is part of the Navy’s “Homeport Ashore” effort to provide a better quality of life for junior sailors who would otherwise be housed on ships. In addition to promoting the new housing option, Naval Base San Diego enacted policies to encourage alternative commutes. Sailors who live in Pacific Beacon must walk or bike to the base.



Figure 2. Military Personnel Origin





## SANDAG and iCommute

SANDAG’s Transportation Demand Management (TDM) program, iCommute, coordinates with employers, including military commanders, to promote alternative commute options for their personnel in order to reduce traffic congestion and cut GHG emissions and other environmental pollutants that result from driving. The program provides resources for shared mobility programs in the region, including bikeshare, shared electric scooters, carshare and on-demand ridesharing. Some of these programs are only available in the local jurisdiction adjacent to each military installation; however, ongoing collaboration has encouraged several pilot projects to allow access to these shared mobility programs.

iCommute conducts commuter surveys with several military facilities in the region to learn how military personnel and civilian employees commute, what alternative transportation options they are aware of, and which of the options they would be willing to try. Using this information, iCommute develops direct marketing initiatives to promote and raise awareness of alternative commute options among military and civilian personnel. Feedback from this survey also includes origin-destination feedback which provides an understanding of employee commute distances.

### Providing an On-Base Commuter Resource Center

In anticipation of redevelopment at the Navy Broadway Complex that would displace 1,000 parking spaces, SANDAG iCommute staff worked closely with NBSD leadership to inform personnel about their alternative commute options.

In the summer of 2018, Navy Broadway Complex opened a Commuter Resource Center where employees can pick up resources from iCommute, MTS, and NCTD including transit maps, schedules, regional bike maps, and learn about the federal Transportation Incentive Program (TIP), which offsets transit expenses including bus, trolley, and vanpool. As of the summer of 2019, two-thirds of staff have changed their commuting behavior from driving alone.

**Table 5. iCommute Assistance Programs**

Service	Description
Employer Services Program	Assists local businesses with developing and implementing customized employee commuter benefit programs that lower costs, increase productivity, and help the environment.
Vanpool Program	Provides commuter groups of five or more with a subsidy of up to \$400 a month to offset the cost of a vehicle lease, which comes with insurance and maintenance. Members of the military and federal employees can also receive up to \$260 per month for vanpool costs.
Guaranteed Ride Home	Offers a safety net for commuters who carpool, vanpool, take transit, walk, or bike to work by providing a free ride home up to three times per year in the event of a family emergency or illness, unscheduled overtime, or being stranded at work due to carpool or vanpool driver leaving for an emergency.
Bike Encouragement Program	Supports the regional bike network and facilitates bike commuting by hosting Bike to Work Day events, funding mini-grants in support of Bike Month events, offering complimentary employer bike services, and producing the San Diego Regional Bike Map.
iCommute Partnership Program	Provides partners with a wide range of marketing benefits and exposure to regional decision makers, employers, the public, and iCommute participants in return for cash donations, in-kind contributions that have an equivalent cash value, or a combination of both.



### Piloting the Nation’s First Military Carpool Incentive

In 2018, iCommute partnered with military bases around the region to provide free Waze Carpool rides to and from each base for one month. Participants were matched with companions who were verified to live or work on a base. The program aimed to reduce congestion by providing an additional commute option for employees and subsidizing driver commute costs for those willing to share the ride. Waze Carpool participants were also eligible to use regional infrastructure including Park & Ride lots, Express Lanes and carpool lanes.

## Funding

Each military installation develops budget priorities through a Planning, Programming, Budgeting and Execution (PPBE) process to identify military construction priorities (MILCON). Through congressional authorization and appropriations, a portion of these priorities are funded. Chapter 169 of Title 10, United States Code, contains most of the laws governing military construction matters and specifies requirements for project authorization. Congress requires project-by-project authorization and appropriation for military construction projects.

State and local agencies are responsible for developing and maintaining public roads to meet normal defense needs adjacent to military bases. Due to jurisdictional boundaries and funding constraints, partnerships for projects supporting both military installations and local jurisdictions can be challenging. Under certain conditions, the Defense Access Road (DAR) Program provides a means for the Department of Defense to pay its share for public highway improvements resulting from sudden or unusual defense-generated impacts. Eligibility for this program includes: (1) doubling of defense-related traffic, (2) new connections to military installations, (3) roads capable of accommodating heavy/oversized vehicles, and (4) replacement roads closed for military necessity. This program is not a funding program, rather a mechanism to transfer MILCON appropriations through the treasury to the Federal Highway Administration (FHWA) for local jurisdictions to plan, design and construct projects outside military installations. Due to the increasing needs for military priority projects and limited funding appropriated by Congress, military installations are looking for new ways to maximize operating and maintenance budgets by partnering with local jurisdictions through Joint Agency Intergovernmental Service Agreements. There also are innovative ways the military has been able to leverage existing military assets through public-private partnerships for development.

While some grant cycles occur on a regular basis, other funding opportunities are not as predictable and can emerge rapidly. For funding applications to compete against other well-qualified projects, it is important to identify strong partnerships and shared visions. This Strategy was developed for the MWG to respond to funding and partnership opportunities quickly to support these critical opportunities.

### Leveraging Existing Military Assets to Support San Diego Economy and Military Goals



*Google Maps Aerial Imagery (2019)*

The Manchester Financial Group is redeveloping 3 million square feet of waterfront property that has been occupied by the Navy for almost 100 years. The \$1.7 billion mixed-use plan replaces the existing Navy Broadway Complex and leverages 12 acres of public land.

The Manchester Pacific Gateway development includes office towers, hotel and retail space, a public park, a museum, and 373,000 square feet for the Navy's regional headquarters. Under the terms of a 99-year lease with the United States government, Manchester Financial Group is building a new 17-story Class A office building for the U.S. Navy Region Southwest headquarters in exchange for development rights. This project estimates \$12 million per year of Transient Occupancy Tax revenue, \$10 million a year of property tax to the County of San Diego, \$15 million a year in sales tax, and more than \$14 million in Development Impact Fees.

The new U.S. Navy Region Southwest headquarters will lose a significant number of parking spaces from its original capacity, and although not required on federal projects, it will abide by city code for this new development and encourage utilization of alternative transportation options in Downtown San Diego.



*Manchester Financial Group*



## Summary of Regional Military Challenges

Through extensive research, the project team cultivated a list of existing conditions that stakeholders consider barriers to project and program implementation. As outlined in **Table 6**, policy limitations underpin the overarching constraints affecting regional military coordination. Challenges specific to individual military facilities are documented in the Briefing Book (**Appendix A**). This research helped to inform the Strategy and the identification of key multimodal transportation projects and programs to improve military mobility in the region.

**Table 6. Summary of Regional Military Challenges**

Funding	
	Congress requires project-by-project authorization and appropriation for military construction projects
Admin	Regional Military Construction (MILCON) funds focus on items that are mission essential, and annual budgets for bases primarily fund small maintenance projects
	Partnerships for projects supporting both military installations and local jurisdictions can be challenging
Misc.	Limited funding for additional security guards at existing gates causes congestion at existing access points
Programs and Collaboration	
	The framework of military contracts, which require a competitive bidding process, can be a barrier to partnering with the private sector for streamlined pilot programs
	Climate Action Plans only allow credit for trips that originate or end within a jurisdiction; improvements that mitigate or address traffic passing through a jurisdiction to a military base is ineligible
Admin	The San Diego Airport Authority is not a member of the MWG despite the close proximity between the San Diego Airport and military installations, and there is no military representation on the Board of Directors of the local transit agencies
	High turnover in staff/leadership and the loss of the Employee Transportation Coordinator position make it difficult to raise awareness about Transportation Demand Management programs
Misc.	Due to security concerns or dynamic local threat levels, projecting growth can be difficult to align with the regional forecasting process
Mobility and Housing	
	Housing costs and bureaucratic constraints - such as restrictions on living south of the U.S. Mexico border, an insufficient housing subsidy, or the DOD discouraging housing personnel on ships- make it difficult for personnel to live near their assigned facility
Admin	Only transit and vanpool qualify for the Transportation Incentive Programs (TIPS), making it difficult to encourage other alternative commutes like Carpool or On-Demand Rideshare
	Helmets are required on-base for people riding bikes, which may deter people from biking
	Differences in rules governing access to bases for military personnel and contractors make mobility programs difficult to coordinate
	Varying military work schedules don't align with schedule-based mobility options like transit and carpool/vanpool

<sup>1</sup> San Diego Military Advisory Council Military Economic Impact Study (SDMAC MEIS 2019)

<sup>2</sup> SDMAC MEIS (2019)

<sup>3</sup> SDMAC MEIS (2019)

<sup>4</sup> SDMAC MEIS (2019)

<sup>5</sup> SANDAG Regional Growth Forecast (2013)

<sup>6</sup> SDMAC MEIS (2017)

<sup>7</sup> SDMAC MEIS (2019)

# Developing Tools to Leverage Opportunities

New funding opportunities and potential partnerships often emerge rapidly. However, competition for external dollars at the federal, state, and local levels is increasingly high. Several tools were developed to help the MWG stakeholders optimize their ability to implement multimodal solutions in the region and maximize opportunities.

The Project Inventory (**Appendix B**) represents a region-wide catalogue of transportation improvements—both infrastructure and non-capital projects—that could help address multimodal access needs to military installations and alleviate congestion on local roadways surrounding military installations. This comprehensive inventory of over 200 projects, which was developed through an extensive outreach process and review of local planning documents (**Appendix C**), was then prioritized to identify highest priority projects that supported the MWG’s Mission, Vision, and Values within each geographic region. This pre-screened and condensed inventory of 24 projects (**Top Projects List**) enables the MWG to pursue emerging opportunities in an efficient and strategic manner. A brief description of the Prioritization Process is described in the next section and is documented in Appendix D.

In 2019, the Senate Appropriations Committee allocated \$75 million in its fiscal 2020 Defense spending bill for funding critical off-base infrastructure projects that support mission readiness and resilience. The Strategy was developed to enable a rapid strategic response to funding opportunities that arise. **Appendix G** identifies additional potential funding sources.

In addition, an interactive project tool (**Screening Tool**) was developed to allow stakeholders to quickly identify projects potentially eligible for emerging opportunities, enabling them to focus more time on the application process and less on project identification. This dynamic resource, which will be continuously updated by the MWG, enables users to search the comprehensive Project Inventory for opportunities that match with desired parameters such as project cost, location, and/or type (**Appendix E**).

**Table 7. Strategy Snapshot**

	Freeway Highway		Local Street / Road		Rail		Active Transportation		Transit		Micromobility		TDM / Land Use	
	Total Type	Total Cost	Total Type	Total Cost	Total Type	Total Cost	Total Type	Total Cost	Total Type	Total Cost	Total Type	Total Cost	Total Type	Total Cost
<b>North</b>	14	\$10,766	7	\$25	7	\$7,617	3	\$36	7	\$1,215	-	-	-	-
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<b>Region-wide</b>	1	\$0.3	-	-	-	-	-	-	2	\$735	-	-	-	-

*Costs in 2019\$, millions. Although projects may fit into more than one category they were classified by their primary elements. TDM projects were not costed.*

# Examples of Project Inventory Categories

**Table 8. Project Inventory Categories**

<h2 style="font-size: 2em; margin: 0;">53</h2>	<p>Active Transportation Projects</p>	<ul style="list-style-type: none"> <li>• Safe Routes to School</li> <li>• Bike Wayfinding</li> <li>• Pedestrian Crossings</li> <li>• Pedestrian / Bike Connection</li> <li>• Class I/II/III/IV Bike Lanes</li> <li>• Multi-Use Paths</li> </ul>	<ul style="list-style-type: none"> <li>• Urban Trails</li> <li>• Bike Wayfinding</li> <li>• Pedestrian Crossings</li> <li>• Bike Signals</li> <li>• Improving Pedestrian/Bike Environment through traffic calming elements</li> </ul>
<h2 style="font-size: 2em; margin: 0;">55</h2>	<p>Freeway /Highway Projects</p>	<ul style="list-style-type: none"> <li>• Freeway connectors / direct connection</li> <li>• Improve Freeway Access</li> <li>• Freeway Lanes</li> <li>• Managed Lanes</li> <li>• Freeway connector</li> </ul>	<ul style="list-style-type: none"> <li>• Operational improvements</li> <li>• General Purpose Lanes</li> <li>• High Occupancy Vehicle Connectors</li> <li>• Freight / goods movement</li> </ul>
<h2 style="font-size: 2em; margin: 0;">35</h2>	<p>Local Street / Road Projects</p>	<ul style="list-style-type: none"> <li>• Safe Routes to School</li> <li>• Port of Entry Improvements</li> <li>• Traffic Calming Elements that did not specify pedestrian/bike enhancement (e.g. speed tables)</li> <li>• Traffic Signal Improvements</li> <li>• Intersection Improvements (e.g., signalized intersection)</li> </ul>	<ul style="list-style-type: none"> <li>• Grade separated improvements</li> <li>• Road Bridge Improvements</li> <li>• Corridor Improvements for multiple travel modes</li> <li>• Road widenings</li> <li>• Median installment / improvements</li> <li>• Grade separated improvements</li> </ul>
<h2 style="font-size: 2em; margin: 0;">9</h2>	<p>Rail Projects</p>	<ul style="list-style-type: none"> <li>• Freight Rail Improvements (e.g., staging area, rail storage facilities)</li> <li>• Track upgrades</li> <li>• Intermodal Transit Center (location associated)</li> <li>• Double-tracking</li> <li>• SPRINTER focus improvements</li> </ul>	<ul style="list-style-type: none"> <li>• COASTER extensions / improvements</li> <li>• Freight / goods movement</li> <li>• Frequency enhancements for existing Trolley lines</li> <li>• Expanding Trolley lines</li> <li>• Rail grade separations for a specific Trolley line</li> </ul>

48

Transit Projects

- Park & Ride Facility
- Transit Center Improvements
- Projects with specific objectives to improve efficiency and reliability of transit services
- New transit service to connect neighborhoods
- Route extension
- Expand existing transit service to new areas

7

Micromobility Projects

- Shuttle system
- Streetcar/shuttle loop or connection

5

Transportation Demand Management Programs / Land Use Projects

- Develop TDM program to connect military housing to military installations
- Public-Private Partnership to develop military housing close to installations
- On-base housing
- Rezone for affordable housing

Types of projects in the Project Inventory include but are not limited to the examples listed above. Although projects may fit into more than one category they were classified by their primary elements.



# Prioritization

Following the creation of the Project Inventory, a prioritization methodology was created to help highlight which of the over 200 projects aligned most closely with the MWG's goals and would be most competitive in an application process for local, state, or federal funding. To that end, multimodal projects that benefitted more than one stakeholder were given primary consideration.

The MWG's Mission, Vision, and Values were operationalized as screening criteria to further determine projects that best addressed congestion relief, safety, and transportation options.

Although the comprehensive Project Inventory is still a critical resource, the Top Projects, equally distributed across the region in order to ensure equitable stakeholder representation, facilitate the MWG's rapid response to funding and partnership opportunities as they arise.

## Prioritization Methodology

The recommended prioritization methodology is a three-step approach involving the following steps:

### 1) Identify projects that align with MWG Mission, Vision, and Values (MVV).

The Project Inventory was screened to identify projects that meet the MWG's mission, vision, and values. The Project Inventory was reviewed to identify projects that meet the following:

- Directly benefits at least two stakeholders, including one military installation and one local jurisdiction
- Improve multimodal travel
- Project is adequately defined to proceed to detailed evaluation

### 2) Detailed evaluation for screened Project Inventory

After the screening in step one was complete, the projects that passed the screening were then evaluated based on the criteria approved by the MWG and PDT. A point system was determined for each criterion and used to help create a differentiation among projects and help identify projects of priority for the MWG. Transportation professionals reviewed the screened Project Inventory on the following criteria:

- Congestion Relief
- Increased Safety
- Increased Transportation Options

### 3) MWG Validation of Ranked Project Inventory

The MWG members were asked to validate the projects at the top of the list based on the detailed evaluation performed in step two. This allowed for the MWG to provide feedback and confirm projects, and if necessary, replace projects on the prioritized Project Inventory.

A detailed methodology which outlines the coordination and step-by-step process by which prioritization was applied to the Project Inventory is documented in **Appendix D**.

### Military Working Group's Mission, Vision, and Values

The Strategy seeks to **facilitate dialogue** and **find common ground** between the military installations in San Diego County and adjacent local communities related to the region's transportation system.

Military bases need the transportation system to **support mission readiness** through the safe movement of personnel while also enhancing the quality of life of service members. Nearby local jurisdictions need to operate and maintain transportation facilities in a state of good repair that **equitably serve the needs of all community members** including residents, employees, and businesses. The MMAS contributes towards a transportation system that **improves safety** for all users while **reducing travel times, vehicle miles travelled (VMT) and greenhouse gas (GHG) emissions** as outlined in Caltrans Sustainable Community Grant requirements.





## Top Project List Categories

**Table 9. Top Project List Categories**

<b>7</b>	Active Transportation Projects	<ul style="list-style-type: none"> <li>• Class I Bikeway</li> <li>• One-Way Class IV Bikeway</li> <li>• Bike Lane Expansion</li> <li>• Urban Trail</li> <li>• Widening of SR 75 Bike Lane</li> </ul>
<b>9</b> <sup>1</sup>	Freeway / Highway Projects	<ul style="list-style-type: none"> <li>• Managed Lanes / High-Occupancy Tolling Lanes</li> <li>• Direct Access Ramps</li> <li>• High Occupancy Vehicle (HOV) Lanes</li> <li>• BRT Lane</li> </ul>
<b>4</b>	Local Street / Road Projects	<ul style="list-style-type: none"> <li>• Corridor Studies</li> <li>• Bridge</li> <li>• Traffic Signal Updates and Synchronization</li> <li>• Multimodal Corridor Improvements</li> <li>• Road Widening</li> </ul>
<b>1</b>	Rail Projects	<ul style="list-style-type: none"> <li>• Double-tracking</li> <li>• Trolley Line Frequency Enhancements</li> </ul>
<b>2</b>	Transit Projects	<ul style="list-style-type: none"> <li>• New Transit Connection</li> </ul>
<b>1</b>	Micromobility Projects	<ul style="list-style-type: none"> <li>• Shuttle System</li> </ul>

*Types of projects in the Project Inventory include but are not limited to the examples listed above.*

<sup>1</sup> Ten managed lane improvements on the I-5 were combined into one project for the Top Project List (ML-1 in Table 10). They are treated as separate projects in the Project Inventory and in Table 1.



## Top Project List

The MWG developed the Top Project List (**Table 10**) following an extensive analysis of the comprehensive Project Inventory (**Appendix D**).

**Table 10. Top Project List**

PID	Facility	Project Extents	Project Description	Project Type	Relevant Military Stakeholder	Relevant Jurisdiction Stakeholder	Cost (\$2019); Millions	Source
NORTHERN PROJECTS								
L-122	SR 78	I-5 to I-15	Add two managed lanes (Existing 6 freeway lanes to 6 freeway lanes + 2 managed lanes with improvements) to create an alternative freeway option and increase vehicle throughput	Freeway and Highway	Camp Pendleton	Oceanside, Carlsbad	\$1,621	2019 Federal RTP
L-161	I-5	SR 78 to Harbor Drive	Widening of the I-5 with the addition of a new interchange direct access ramp specifically for High Occupancy Vehicles (HOV) from SR 78 to Harbor Drive	Freeway and Highway	Camp Pendleton	Oceanside	\$59	Fall 2018 Workshop Camp Pendleton Table
P-76	East Mission Road	TBD	Widening of one lane in each direction.	Local Street / Road	Camp Pendleton	Oceanside	\$12.4	December 2018 Workshop Camp Pendleton Table
P-74	I-15	Fallbrook Gate	One component of a broader proposal to do a 'corridor study' for the I-15 to Fallbrook Gate and look at different solutions that could include a P&R among other ideas.	Freeway and Highway	Camp Pendleton	San Diego County, Oceanside	\$0.3	December 2018 Workshop Camp Pendleton Table
P-40	Melrose Dr	From Melrose Dr to N River Rd	Bridge connecting Melrose Dr and N River Rd over existing river. Oceanside Planner noted that there would be no transit planned until a third bridge was built on Melrose	Local Street / Road	Camp Pendleton	Oceanside	\$10.0	December 2018 Workshop Camp Pendleton Table



PID	Facility	Project Extents	Project Description	Project Type	Relevant Military Stakeholder	Relevant Jurisdiction Stakeholder	Cost (\$2019); Millions	Source
L-76	Route 398	Oceanside Transit Center to Downtown San Diego	Double tracking the LOSSAN corridor between Oceanside and Downtown San Diego for increased reliability and convenience (Allows for 20-minute off-peak frequencies and would include grade separations at Leucadia Blvd, stations/platforms at Convention Center/Gaslamp Quarter and Del Mar Fairgrounds, and extension to Camp Pendleton)	Rail	Camp Pendleton, Broadway, MCRD, NBPL, Coast Guard, NBSD	Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, City of San Diego, Port of San Diego	\$1,224	2019 Federal RTP
Central Projects								
P-82	Black Mountain Road	Miramar College and Sorrento Valley COASTER station to Miramar	Connect Miramar to Miramar College and Sorrento Valley COASTER station	Micromobility	Miramar	City of San Diego	\$3	May 2019 Military Working Group
L-187	Carroll Road	Camino Santa Fe to Miramar Rd	Add a one-way class IV (buffered and separated) bikeway to each side of the roadway to create a safer bike network	Active Transportation	Miramar	City of San Diego	\$0.3	December 2018 Workshop Miramar
L-190	Black Mountain Road	Mira Mesa Blvd to Miramar Rd	Expand the Bike Lane on Black Mtn Rd to create a safer bike network	Active Transportation	Miramar	City of San Diego	\$0.5	December 2018 Workshop Miramar
L-164	I-8	I-5 to East County	Managed or High-Occupancy Tolling Lanes on I-8 from I-5 to East County	Freeway and Highway	NBPL, Miramar, Broadway, Naval Medical Center, NBSD, Coast Guard, NBC	City of San Diego, La Mesa, Lemon Grove, El Cajon, San Diego County, Coronado	\$10	December 2018 Workshop NBPL MCRD CG Table
L-40	I-15	I-8 to SR 163	Add two managed lanes (Existing 8 freeway lanes + 2 managed lanes with improvements) to create an alternative freeway option and increase vehicle throughput	Freeway and Highway	Miramar, NBSD, NBC	City of San Diego, Coronado	\$34	2019 Federal RTP



PID	Facility	Project Extents	Project Description	Project Type	Relevant Military Stakeholder	Relevant Jurisdiction Stakeholder	Cost (\$2019); Millions	Source
P-72	I-15	Miramar Way Exit on I-15	Add High Occupancy Vehicle (HOV) lane exit into Miramar with potential of adding express lane access for HOV traffic and reversible gates to match peak direction to increase vehicle throughput and create an alternative freeway option	Freeway and Highway	Miramar	City of San Diego	\$9	December 2018 Workshop Miramar Table
L-100	Route 28	Point Loma to Kearny Mesa via Old Town, Linda Vista	Provide a transit connection from Point Loma to Kearny Mesa via Old Town, Linda Vista	Transit	NBPL, MCRD, Miramar	City of San Diego, Port of San Diego	144	2019 Federal RTP
Southern Projects								
L-146	8th Street	Harbor Drive to D Avenue	Urban trail	Active Transportation	NBSD	National City, Port of San Diego	\$4.5	National City Downtown Specific Plan (2017)
L-199	SR 75	SR 75 in Imperial Beach to 3rd Street in Coronado	Widen SR 75 Bike Lane (Serves Commuter and Recreational Purposes)	Active Transportation	NBC, SSTC, NOLF	Imperial Beach, Coronado	\$3.5	May 2019 Military Working Group
L-167	Rosecrans St	I-5 to Lytton St	Add class I bikeway (separated and dedicated for bicycles) as shown in the Midtown Community Plan Update	Active Transportation	NBPL	City of San Diego	\$1.8	December 2018 Workshop NBPL MCRD CG Table
L-200	SR 75	SR 75 Palm Ave from I-5 to NOLF and Coastal Campus	Carpool/BRT Lane on SR 75 Palm to NOLF or Coastal Campus	Freeway and Highway	NOLF, SSTC	Imperial Beach, Coronado	\$0.4	May 2019 Military Working Group
L-74	SR 94	I-5 to I-805	Add two managed lanes (Existing 8 freeway lanes to 8 freeway lanes + 2 managed lanes with improvements) to increase vehicle throughput and provide an alternative freeway option	Freeway and Highway	Naval Medical Center, Broadway, NBSD, NBC	City of San Diego, National City, Coronado	\$728	2019 Federal RTP



PID	Facility	Project Extents	Project Description	Project Type	Relevant Military Stakeholder	Relevant Jurisdiction Stakeholder	Cost (\$2019); Millions	Source
L-181	Over Silver Strand Blvd	Connecting Ocean and Bay sides of NAB	Bridge connecting Ocean and Bay side of NAB	Active Transportation	NBC	Coronado, Port of San Diego	\$18	December 2018 Workshop NBC Table; May 2019 Military Working Group
L-133	Vesta Street	Over Harbor Drive	Install a bridge over Harbor Drive to enhance flow of traffic on Naval Base San Diego, reduce congestion on Harbor Dr, and close the network-gap in the active transportation system	Active Transportation	NBSD	National City, Port of San Diego	\$102.2	Caltrans District System Management Plan (DSMP) (2015)
L-111	Harbor Drive	Tenth Avenue Marine Terminal in San Diego and the National City Marine Terminal	Harbor Drive Multimodal Corridor Improvements, including but not limited to: improvements at 32nd Street and Vesta Street; pedestrian crossings and bridges; various truck improvements; bikeway accommodations; street scape, safety, and parking improvements	Local Street / Road	NBSD	National City, Port of San Diego	\$371.0	2019 Federal RTP
L-168	Rosecrans St	I-5 to NBPL Gate	Synchronize traffic signals to improve traffic flow and speed. Add Signal Priority for transit vehicles to improve public transit efficiency from the I-5 to the Naval Base Point Loma Gate	Local Street / Road	NBPL, MCRD	City of San Diego, Port of San Diego	\$0.5	December 2018 Workshop NBPL MCRD CG Table
L-83	Route 510	Palomar St to 12th & Imperial	Phase I: Blue Line frequency enhancements to improve convenience and reliability and rail grade separations at 28th St, 32nd St, E St, H St Palomar St, and Blue/Orange Track Connection at 12th/Imperial to improve nearby traffic flow	Transit	NBPL, MCRD, Coast Guard, Broadway, NBSD	National City, Chula Vista, City of San Diego, Port of San Diego	\$279	2019 Federal RTP





PID	Facility	Project Extents	Project Description	Project Type	Relevant Military Stakeholder	Relevant Jurisdiction Stakeholder	Cost (\$2019); Millions	Source
Region-wide								
ML-1 <sup>1</sup>	I-5	Vandegrift Blvd to SR 905	<p>Create an alternative freeway option and increase vehicle throughput by adding managed lanes to the I-5.</p> <ul style="list-style-type: none"> <li>• (L-52, L-53) SR 78 to Vandegrift Blvd: Add four managed lanes to existing 8 freeway lanes</li> <li>• (L-51) Phase II: Manchester Ave to SR 78: Add two managed lanes to 8 existing freeway lanes and 2 managed lanes</li> <li>• (L-49) SR 56 to Manchester Ave: Add two managed lanes to existing 8 freeway lanes and 2 managed lanes</li> <li>• (L-48) I-5/I-805 Merge to SR 56: Add two managed lanes to existing 8 freeway lanes/14 freeway lanes and 2 managed lanes</li> <li>• (L-47) La Jolla Village Dr. to I-5/805 Merge: Add two managed lanes existing 8 freeway lanes/14 freeway lanes</li> <li>• (L-46) I-8 to La Jolla Village Dr: Add two managed lanes existing 8 freeway lanes/10 freeway lanes</li> <li>• (L-43) I-15 to I-8: Add Operational Lanes to existing 8 freeway Lanes</li> <li>• (L-44) SR-54 to SR-15: Add 2 freeway lanes and 2 managed lanes to existing 8 freeway lanes</li> <li>• (L-120) SR-905 to SR-54: Add 2 Managed Lanes to existing 8 freeway lanes</li> </ul>	Freeway and Highway	Miramar, Camp Pendleton, NBPL, NBC, NBSD, Coast Guard, Naval Medical Center	Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, City of San Diego, Chula Vista, Imperial Beach, Port of San Diego	\$7,967	SANDAG Regional Plan (2015), 2019 Federal RTP

1 Projects in ML-1 were grouped together for the purpose of the Top Project list, however they are represented in Table 1 by the geographic area relevant to each individual project segment.

Figure 3. Strategy Top Projects





# Regional Strategies and Actions

Key strategies were identified to guide future decision making towards solutions that address the needs identified as part of the Military Multimodal Access Strategy. The strategies and actions presented below provide an outline for considering how the MWG can engage with stakeholders to support projects and decisions that address the military's priorities in the San Diego region. The strategies identified in this document are:

1. Support collaboration across jurisdictions and transit agencies to address military multimodal access challenges and ensure mission compatibility
2. Advocate for MWG priority projects with local, regional, state, and federal partners
3. Pursue funding sources that draw outside investment into the region
4. Maintain an accurate and comprehensive inventory of MWG transportation projects

These strategies are intended to provide a framework to achieving the MWG transportation goals, while supporting the military mission.

## Strategy #1: Support Agency Collaboration

The MWG should align the efforts of project supporters and problem solvers to address military multimodal access challenges in various sub-regions of San Diego. Proactive collaboration should provide a regional viewpoint to otherwise local projects and help bring neighboring jurisdictions to the table in order to expand any projects' impact across jurisdictional boundaries. Through deliberate collaboration, the MWG can act as a strong voice for widening the lens of local projects during project initiation, development, and public comment.

### Recommended Actions:

- Integrate military representatives into the project development teams and committees for local projects that may impact the military's multimodal access

Projects are consistently discussed and planned across the region. The MWG shall remind members to review annual capital improvement plans (CIPs) from local jurisdictions at the beginning of every fiscal year (July) for projects that may affect military mobility. Projects identified that may affect more than one stakeholder shall be collaboratively discussed and addressed during the quarterly MWG meeting or through formation of a subcommittee to assess adverse impacts and also allow for the synchronization of mobility measures. Those projects that may adversely impact the military mission shall be collaboratively discussed and addressed via a subcommittee or joint meeting such as with the Regional Planning Committee.

- Have a standing update agenda item on MWG meetings to inform the group of major planning document initiations

There are dozens of regular processes that are initiated every year that impact transportation related issues. While many of these could be used to advance the goals of the MWG, it can be difficult to track and develop a proactive approach to monitor these processes. MWG staff shall develop a shared calendar that identifies when major planning processes are initiated. This calendar shall be updated on a rolling basis as new opportunities and relevant activities are identified and discussed at each quarterly MWG meeting.

## Strategy #2: Advocate for MWG Projects

The MWG projects have transformational potential for base access and personnel mobility. Many of these projects are regional in nature and are often characterized by longer project development timelines due to the number of stakeholders involved in developing, approving, and permitting a project. As such, many of these projects fall into “long-term” improvement categories that are recognized as important but struggle to advance towards implementation.

### Recommended Actions:

- Regularly present MWG priorities to all levels of government including local councils, SANDAG Regional Planning Committee (RPC), and SANDAG Board of Directors

The MWG should regularly engage with stakeholders at all levels of government to communicate its goals and establish partnerships. One way this could be achieved is through the creation of an annual State of Military Mobility Report that can be presented to governing bodies. This report would restate the goals of the MWG, highlight the accomplishments of the previous year towards advancing transportation access, communicate the future transportation needs of military installations, and identify priority projects that the MWG would like stakeholders to consider partnering on.

- Advocate for MWG priority projects in each agency’s list of priorities

Every agency has a different methodology for prioritizing future improvements. By leveraging collaboration efforts, the MWG and representatives should learn how agencies evaluate projects and identify MWG priorities that align with those evaluation processes. By highlighting alignment with agency goals, MWG projects may be re-prioritized for implementation at an earlier time horizon.

## Strategy #3: Pursue Funding from Outside Sources

Funding is a major component of implementing MWG projects – often times local funding is supplemented by grants or funds from regional, state, and federal agencies. As a major economic engine in the region, the military commands attention when it raises the profile of an issue or project. The military has a strong local reputation given that its reach impacts almost every resident. By partnering to access external funding sources, the needed resources can be leveraged to bridge the gap between current funding priorities and MWG projects.

### Recommended Actions:

- Have a standing grant update agenda item on MWG meetings

Grants represent a large opportunity for military projects to receive funding from outside the region. A challenge with grants is that they sometimes have irregular cycles, short solicitation periods, and vague/complex requirements. The MWG shall have a standing agenda item to discuss grant opportunities due to their importance in the implementation of many of the priority projects and to ensure dialogue is initiated among potential partners. An initial listing of grant opportunities is identified in [Appendix G](#).

- Form subcommittee, as appropriate, with local partners to coordinate when there are grant opportunities for MWG priority projects

Grants sometimes require a significant amount of collaboration across stakeholders and often times need a public jurisdiction as a lead agency. Once a grant opportunity is identified for an MWG project, an ad-hoc subcommittee should be formed to work through the application process and prepare necessary grant documentation. This subcommittee will facilitate quick communication amongst stakeholders and allow for the division of labor as it relates to the completion of the application.

- Provide letters of support, as appropriate, for MWG transportation projects seeking grant funding



Most grant applications require or are enhanced with letters of support from stakeholders. MWG members should provide, as appropriate and permissible, support letters or letters of acknowledgment to projects that benefit military stakeholders.

## Strategy #4: Maintain Working Group Project Inventory

The MWG represents a broad cross-section of transportation stakeholders and as such, the project inventory is large and diverse. Maintaining quality project data is critical for the MWG to quickly respond to new opportunities as they arise. The initial top 20 projects shown in the Prioritization section of this report were developed by the MWG for reference and context.

### Recommended Actions:

- Assign an “inventory coordinator” from MWG to take responsibility for the Project List

Because the project inventory requires regular maintenance in a consistent format, a singular inventory coordinator should be assigned with adding, removing, and modifying projects in the inventory. SANDAG is well positioned as a major stakeholder due to its role on the MWG and its institutional technical expertise to fulfill the role of inventory coordinator.

- Update the list with new projects and remove completed projects annually

Having accurate data in the project inventory is important to keep it relevant as a resource into the future. Over time, projects will be completed or become non-applicable while new project needs will emerge. It would be important for the MWG members to periodically re-engage the methodology outlined in **Appendix D** to select new projects to focus on as projects from the initial Top 20 list are implemented. The inventory coordinator should coordinate with MWG representatives to document project inventory changes annually. For ease of completion and review, each MWG representative should receive the relevant list of projects and provide comments on how this smaller list should be altered. Edited lists will then be reassembled by the inventory coordinator and distributed to the full updated MWG membership list. This process should be completed prior to the budgetary process in the spring of every year.

- Create new Top Project list prior to every Regional Transportation Plan update

Because of the regional nature of many of the MWG priority projects, the compilation of SANDAG’s Regional Transportation Plan is a particularly relevant planning process to engage. Prior to the initiation of the RTP, the MWG should reapply the Prioritization Methodology detailed in **Appendix D** to the project inventory. This process will generate an updated list of MWG Top Projects that may be relevant to the RTP process. Using the updated priority list, the MWG can collaborate with stakeholders and advocate for the representation of military needs in the RTP.



## Look Ahead: The Military and the 5 Big Moves

The military presence in San Diego county has a profound economic benefit in the region. By implementing the strategies outlined in this document, stakeholders can continue to foster growth while minimizing transportation impacts. In 2019, SANDAG introduced “The 5 Big Moves” that highlight the region’s strategic priorities for the future transportation system in the county. These priorities have significant overlap with those identified by military stakeholders in the Strategy. The alignment between the 5 Big Moves and the Strategy are highlighted below.



### Complete Corridors

Most military installations are located in urbanized areas that have mature roadway networks. This urban maturity restricts the ability for the roadways to be widened for additional automobile travel without significant financial outlays and impacts to the community. The concept of complete corridors focuses on optimizing travel routes through enhanced technology, modal choice options, and increased focus on demand management. Complete Corridor components are highlighted throughout the Strategy’s project list and represent a significant collaborative opportunity between SANDAG and the MWG.

### Transit Leap

Because of the needs for secure base access and the dispersed internal movements on base, military bases are difficult to serve with transit that is useful to users and competitive with automotive travel. The concept of a Transit Leap is to provide public transportation services that are time competitive with, or faster than, driving alone. There are several transit improvements identified in the Strategy, from new micro-mobility service to dedicated bus lanes, that would incentivize some of the over 100,000 military related daily trips in the region to utilize transit. Strategic investments in the transit system stand to benefit military communities and the region at large.

### Mobility Hubs

Much of the barriers to military commuters using alternative modes of transportation is a difficult first/last mile connection. The concept of Mobility Hubs is to enhance the reach of transit by offering amenities, improved access via street improvements, and services to users. Strategic investments in hub improvements near military housing and facility access points can help to provide options for travelers to use alternative modes.

### Flexible Fleets

Due to the unique geography, secure access, and commute patterns of military facilities, conventional transit vehicles can find it difficult to serve the military community. The concept of Flexible Fleets aims to utilize multiple vehicle types to better serve the unique needs of users in the transportation system. Neighborhood electric vehicles, passenger vans, and microtransit shuttles all have particular characteristics that make providing transportation options to bases and on base more feasible and efficient.

### Next OS

Often it is difficult for users to know all the transportation options available to them. The large number of different services also present barriers to adopting and utilizing services without planning ahead. The Next OS concept will consolidate trip planning and payment systems into one mobile application that will provide a seamless experience for users to utilize any number of modes provided by any number of operators on a single trip.



# Appendix A

Briefing Book

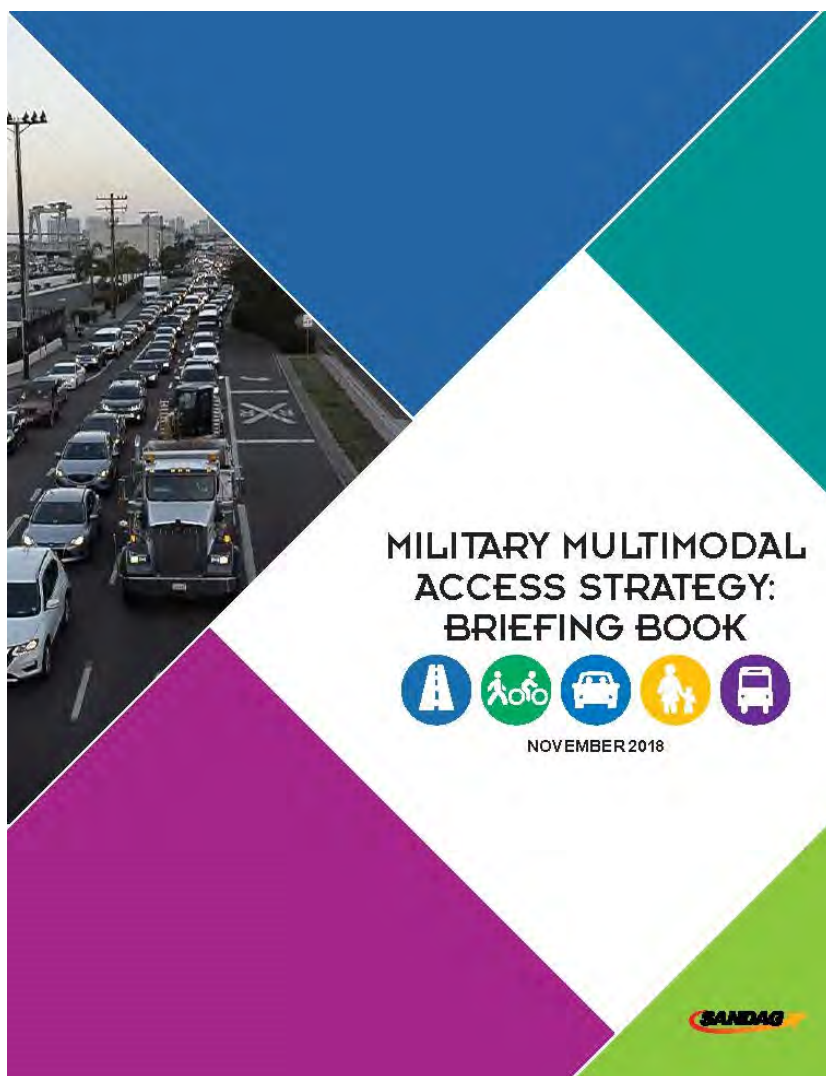
## Briefing Book

The Briefing Book was developed as a resource for the Military Multimodal Access Strategy and used to support a major stakeholder workshop. It synthesizes information from stakeholder interviews and research to document existing conditions for land use, transportation, and travel data for military installations and local jurisdictions within the project area. Examples of documented conditions include:

- Existing military partnerships
- Commuting patterns of military and civilian personnel
- Existing transportation options within the vicinity of regional military installations
- Challenges affecting mobility as it relates to regional military installations

The link to the full Briefing Book can be found here:

<https://www.sandag.org/index.asp?committeeid=104&fuseaction=committees.detail>





# Appendix B

Project Inventory

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-1 <sup>1</sup>	Park Blvd	Uptown– Hillcrest to Balboa Park	Bicycle Facilities	Active Transportation	Naval Medical Center	City of San Diego	3.0	4.1	4.8	SANDAG Regional Plan (2015)
L-2	Pershing Ave	Pershing and El Prado– North Park to Downtown San Diego	Bicycle Facilities	Active Transportation	Naval Medical Center	City of San Diego	7.0	7.0	8.0	2019 Federal RTP
L-3	Laurel St/ El Prado	Pershing and El Prado– Cross-Park	Bicycle Facilities	Active Transportation	Naval Medical Center	City of San Diego	6	1.0	1.0	2019 Federal RTP
L-4 <sup>1</sup>	Multiple (Palm Ave, Elm Ave, Iris Ave)	San Ysidro to Imperial Beach	Bayshore Bikeway Connection	Active Transportation	SSTC, NOLF	City of San Diego, Coronado, Imperial Beach	8.9	12.1	14.2	SANDAG Regional Plan (2015)
L-11	Imperial Blvd, Island Ave, Park Blvd	Downtown San Diego to Golden Hill	Downtown to Southeast connections	Active Transportation	Broadway, Naval Medical Center, NBSD	City of San Diego	3.0	3.6	6.0	2019 Federal RTP
L-14	Pacific Hwy	Pac Hwy (W Washington St to Laurel St)	Coastal Rail Trail San Diego	Active Transportation	MCRD, Coast Guard	City of San Diego	4.0	7.0	11.0	2019 Federal RTP
L-15	Pacific Hwy	Pac Hwy (Laurel St to Santa Fe Depot)	Coastal Rail Trail San Diego	Active Transportation	Coast Guard, Broadway	City of San Diego, Port of San Diego	8.0	13.9	21.0	2019 Federal RTP
L-16	Pacific Hwy	Pac Hwy (Taylor St to W Washington St)	Coastal Rail Trail San Diego	Active Transportation	NBPL, MCRD	City of San Diego	4.0	7.0	11.0	2019 Federal RTP
L-17	Harbor Drive	W Broadway to Park Blvd	Bayshore Bikeway	Active Transportation	Broadway	City of San Diego, Port of San Diego	19.0	25.0	39.0	2019 Federal RTP
L-27	Nimitz Blvd, Mission Bay Dr, Quivira Rd	Ocean Beach to Mission Bay	Bicycle Facilities	Active Transportation	NBPL, MCRD	City of San Diego, Port of San Diego	24.0	41.0	51.0	2019 Federal RTP
L-30	North of Sweetwater River	Sweetwater River Bikeway Ramps	Bicycle Facilities	Active Transportation	NBSD	National City, County of San Diego	9.0	15.7	24.0	2019 Federal RTP

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-35	Harbor Drive	Harbor Dr (Downtown to Ocean Beach)	Bicycle Facilities	Active Transportation	NBPL, Coast Guard, Broadway Complex	City of San Diego, Port of San Diego	7.0	12.2	18.0	2019 Federal RTP
L-36	I-15	I-15 Bikeway – Murphy Canyon Rd to Affinity Ct	Bicycle Facilities	Active Transportation	Miramar	City of San Diego	40.0	69.6	115.0	2019 Federal RTP
L-37	E J St	E J St from 2nd Ave to Paseo Del Rey	Bay to Ranch Bikeway	Active Transportation	NBSD	Chula Vista	12.0	20.9	36.0	2019 Federal RTP
L-38	I-15	I-5 to SR 94	Add two freeway lanes and two managed lanes (6F to 8F + 2ML)	Freeways and Highways	Naval Medical Center, Broadway, NBSD, NBC	City of San Diego, Coronado	136	185	391	2019 Federal RTP
L-40	I-15	I-8 to SR 163	Add two managed lanes (8F to 8F + 2ML)	Freeways and Highways	Miramar, NBSD, NBC	City of San Diego, Coronado	56	34	72	2019 Federal RTP
L-41	I-15	SR78 to Riverside County	Add four toll lanes (8F to 8F + 4T)	Freeways and Highways	Camp Pendleton, Miramar, NBSD, NBC	City of San Diego, Coronado, San Diego County	1,029	1,744	3,684	2019 Federal RTP
L-42	I-5	I-8 to La Jolla Village Drive	Add two managed lanes (8F/10F to 8/10 F + 2ML)	Freeways and Highways	NBPL, MCRD, Coast Guard, NBSD, NBC	City of San Diego, Coronado	556	978	2,067	2019 Federal RTP
L-43	I-5	SR 15 to I-8	Add Operational Lanes to 8 Freeway Lanes	Freeways and Highways	NBPL, MCRD, Coast Guard, NBSD, NBC	City of San Diego, Coronado	1,177	1,985	4,194	2019 Federal RTP
L-44	I-5	SR-54 to SR-15	Add two freeway lanes and two managed lanes (8F to 10F + 2ML)	Freeways and Highways	NBSD	City of San Diego, National City	343	467	540	2019 Federal RTP
L-46	I-5	I-8 to La Jolla Village Dr.	Add two managed lanes (8F/10F to 8F/10F + 2ML)	Freeways and Highways	Miramar, NBPL, MCRD, Coast Guard	City of San Diego	556	978	2,067	2019 Federal RTP



PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-47	I-5	La Jolla Village Dr. to I-5/805 Merge	Add two managed lanes (8F/14F to 8F/14F +2ML)	Freeways and Highways	Camp Pendleton, Miramar, NBPL, NBSD, NBC	Oceanside, City of San Diego	206	422	513	2019 Federal RTP
L-48 <sup>1</sup>	I-5	I-5/I-805 Merge to SR-56	Add two managed lanes (8F/14F+2ML to 8F/14F+4ML)	Freeways and Highways	Camp Pendleton, Miramar, NBPL, NBSD, NBC	Oceanside, City of San Diego	91	124	188	SANDAG Regional Plan (2015)
L-49 <sup>1</sup>	I-5	SR-56 to Manchester Ave	Add two managed lanes (8F + 2ML to 8F + 4ML)	Freeways and Highways	Camp Pendleton, Miramar, NBPL, NBSD, NBC	Oceanside, Solana Beach, Del Mar, City of San Diego, San Diego County	455	619	935	SANDAG Regional Plan (2015)
L-51	I-5	Manchester Ave to SR 78	Phase II: Add two managed lanes (8F + 2ML to 8F + 4ML)	Freeways and Highways	Camp Pendleton, Miramar, MCRD, Coast Guard, Naval Medical Center, NBSD, NBC	Oceanside, Carlsbad, Encinitas, City of San Diego	1,076	2,082	3,019	2019 Federal RTP
L-52	I-5	SR 78 to Vandegrift Blvd	Phase I: Add two managed lanes (8F to 8F + 2ML)	Freeways and Highways	Camp Pendleton, Miramar, MCRD, Coast Guard, Naval Medical Center, NBSD, NBC	Oceanside, Carlsbad, City of San Diego	76	116	131	2019 Federal RTP
L-53	I-5	SR 78 to Vandegrift Blvd	Phase II: Add two managed lanes (8F + 2ML to 8F + 4ML)	Freeways and Highways	Camp Pendleton, Miramar, MCRD, Coast Guard, Naval Medical Center, NBSD, NBC	Oceanside, Carlsbad, City of San Diego	606	632	1,336	2019 Federal RTP

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L-54	I-5	Vandegrift Blvd to Orange County	Add four toll lanes (8F to 8F + 4T)	Freeways and Highways	Camp Pendleton, Miramar, MCRD, Coast Guard, Naval Medical Center, NBSD, NBC	Oceanside, City of San Diego	1,813	3,165	6,687	2019 Federal RTP
L-55	I-5/SR-78	South to East and West to South	Freeway connector	Freeways and Highways	Camp Pendleton	Oceanside	273	371	487	2019 Federal RTP
L-57	I-8	I-5 to SR-125	Operational Improvements	Freeways and Highways	NBPL, MCRD, Coast Guard, NBSD, NBC	City of San Diego, La Mesa, Coronado	667	907	1,917	2019 Federal RTP
L-59	I-805	SR-905 to Palomar St	Add two managed lanes (8F to 8F + 2ML)	Freeways and Highways	NBSD, SSTC, NOLF	City of San Diego, Imperial Beach	343	235	316	2019 Federal RTP
L-60	I-805	SR 54 to SR 94	Add two managed lanes (8F + 2ML to 8F + 4ML)	Freeways and Highways	NBSD, SSTC, NOLF	City of San Diego, National City, Chula Vista	704	742	998	2019 Federal RTP
L-61	I-805	SR 94 to SR 15	Phase I: Add two managed lanes (8F to 8F + 2ML)	Freeways and Highways	Broadway, Naval Medical Center, NBSD, SSTC, NOLF	City of San Diego, Coronado	172	234	264	2019 Federal RTP
L-62	I-805	SR 94 to SR 15	Phase II: Add two managed lanes (8F + 2ML to 8F + 4ML)	Freeways and Highways	Broadway, Naval Medical Center, NBSD, SSTC, NOLF	City of San Diego, Coronado	61	83	175	2019 Federal RTP
L-63	I-805	SR 15 to SR 163	Add four managed lanes (8F/10F to 8F/10F + 4ML)	Freeways and Highways	Broadway, Naval Medical Center, NBSD, SSTC, NOLF	City of San Diego, Coronado	1,152	1,567	3,310	2019 Federal RTP
L-64 <sup>2</sup>	I-805	SR 163 to SR 52	Phase I: Add two managed lanes (8F to 8F + 2ML)	Freeways and Highways	Miramar	City of San Diego	229	195	269	2019 Federal RTP

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L-65	I-805	SR 163 to SR 52	Phase II: Add two managed lanes (8F + 2ML to 8F + 4ML)	Freeways and Highways	Miramar	City of San Diego	322	438	925	2019 Federal RTP
L-67	I-805	SR 52 to Carroll Canyon Rd	Phase II: Add two managed lanes (8F + 2ML to 8F + 4ML)	Freeways and Highways	Miramar	City of San Diego	394	778	996	2019 Federal RTP
L-71	SR 52	I-805 to I-15	Add two managed lanes (6F to 6F + 2ML)	Freeways and Highways	Miramar	City of San Diego	91	238	503	2019 Federal RTP
L-72	SR 52	I-15 to SR 125	Add two, reversible managed lanes (4F/6F to 4F/6F + 2ML (R))	Freeways and Highways	Miramar	City of San Diego, San Diego County	298	405	856	2019 Federal RTP
L-73	SR 54	I-5 to SR 125	Add two managed lanes (6F to 6F + 2ML)	Freeways and Highways	NBSD, SSTC, NOLF	National City, Chula Vista, San Diego County	111	151	319	2019 Federal RTP
L-74	SR 94	I-5 to I-805	Add two managed lanes (8F to 8F + 2ML)	Freeways and Highways	Naval Medical Center, Broadway, NBSD, NBC	City of San Diego, Coronado	535	728	955	2019 Federal RTP
L-75	Route 398	Oceanside Transit Center to Downtown San Diego	Double tracking (20-minute peak frequencies and 120-minute off-peak frequencies)	COASTER	Camp Pendleton, Broadway, NBPL, MCRD, Coast Guard, NBSD	Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, City of San Diego, Port of San Diego	445	609	693	2019 Federal RTP

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-76	Route 398	Oceanside Transit Center to Downtown San Diego	Double tracking (20-minute off-peak frequencies, grade separations at Leucadia Blvd, stations/platforms at Convention Center/Gaslamp Quarter and Del Mar Fairgrounds, and extension to Camp Pendleton)	COASTER	Camp Pendleton, Broadway, NBPL, MCRD, Coast Guard, NBSD	Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, City of San Diego, Port of San Diego	900	1,224	1,488	2019 Federal RTP
L-77	Route 398	Oceanside Transit Center to Downtown San Diego	Double tracking (completes double tracking; includes Del Mar Tunnel) plus 2 grade separations)	COASTER	Camp Pendleton, Broadway, NBPL, MCRD, Coast Guard, NBSD	Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, City of San Diego, Port of San Diego	1,365	3,921	8,258	2019 Federal RTP
L-78	Route 399	Oceanside to Escondido	SPRINTER efficiency improvements (20-minute frequencies by 2025); double tracking Oceanside to Escondido for 10-minute frequencies and six rail grade separations at El Camino Real, Melrose Dr, Vista Village Dr/Main St, North Dr, Civic Center, Auto Pkwy	SPRINTER	Camp Pendleton	Oceanside, Vista, San Marcos, Escondido, San Diego County	946	1,287	1,564	2019 Federal RTP
L-79	Route 399	Branch Extension to Westfield North County	Branch Extension to Westfield North County	SPRINTER	Camp Pendleton	Oceanside, Vista, San Marcos, Escondido, San Diego County	176	239	479	2019 Federal RTP

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L-80	Route 440	Carlsbad to Escondido Transit Center	Connection from Carlsbad to Escondido Transit Center via Palomar Airport Rd	<i>Rapid</i>	Camp Pendleton	Oceanside, Vista, San Marcos, Escondido, Carlsbad, San Diego County	51	140	234	2019 Federal RTP
L-81	Route 474	Oceanside to Vista	Connection from Oceanside to Vista via Mission Ave/Santa Fe Rd Corridor	<i>Rapid</i>	Camp Pendleton	Oceanside	50	99	202	2019 Federal RTP
L-82	Route 477	Camp Pendleton to Carlsbad Village	Connection from Camp Pendleton to Carlsbad Village via College Blvd, Plaza Camino Real	<i>Rapid</i>	Camp Pendleton	Oceanside, Carlsbad	80	109	181	2019 Federal RTP
L-83	Route 510	Palomar St to 12th & Imperial	Phase I– Blue Line Frequency Enhancements and rail grade separations at 28th St, 32nd St, E St, H St Palomar St, and Blue/Orange Track Connection at 12th/Imperial	Trolley	NBPL, MCRD, Coast Guard, Broadway, NBSD	City of San Diego, National City, Chula Vista, Port of San Diego	205	279	339	2019 Federal RTP
L-84	Route 520	East San Diego County to Downtown San Diego	Orange Line Frequency Enhancements and four rail grade separations at Euclid Ave, Broadway/Lemmon Grove Ave, Allision Ave/University Ave, Severin Dr	Trolley	Naval Medical Center, Broadway, NBSD	City of San Diego, El Cajon, La Mesa, Lemon Grove, San Diego County	267	363	453	2019 Federal RTP

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L-85 <sup>3</sup>	Route 520	East San Diego County to Downtown San Diego	Orange Line Frequency Enhancements	Trolley	Naval Medical Center, Broadway, NBSD	City of San Diego, El Cajon, La Mesa, Lemon Grove, San Diego County	-	-	-	2019 Federal RTP
L-86 <sup>3</sup>	Route 530	Green Line	Green Line Frequency Enhancements	Trolley	Naval Medical Center, Broadway, NBSD	City of San Diego, El Cajon, La Mesa, San Diego County, Port of San Diego	-	-	-	2019 Federal RTP
L-87	Route 554	Hillcrest, Balboa Park, Downtown San Diego	Loop between Hillcrest, Balboa Park, and Downtown San Diego	Streetcar/ Shuttle	Naval Medical Center	City of San Diego	29	39	45	2019 Federal RTP
L-88 <sup>2</sup>	Route 555	30th St to Downtown San Diego	Connection from 30th St to Downtown San Diego via North Park/Golden Hill	Streetcar/ Shuttle	Naval Medical Center, Broadway	City of San Diego	26	23	29	2019 Federal RTP
L-89	Route 562	San Ysidro to Kearny Mesa	Phase I- Connection from San Ysidro to Kearny Mesa via Chula Vista via Highland Ave/4th Ave, National City Southeast San Diego, Mid-City, and Mission Valley	Trolley	NBSD, SSTC, NOLF	City of San Diego, National City, Chula Vista	2,333	4,575	6,290	2019 Federal RTP
L-91	Route 637	North Park to 32nd St Trolley Station	Connection from North Park to 32nd St Trolley Station via Golden Hill	<i>Rapid</i>	NBSD	City of San Diego, Port of San Diego	33	60	101	2019 Federal RTP



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L-92	Route 650	Chula Vista to Palomar Airport Rd Business Park	Connection from Chula Vista to Palomar Airport Rd Business Park via I-805/I-5 (peak only)	<i>Rapid</i>	Miramar	Carlsbad, Encinitas, Solana Beach, Del Mar, City of San Diego, Chula Vista	82	112	186	2019 Federal RTP
L-93	Route 653	Mid-City to Palomar Airport Rd	Connection from Mid-City to Palomar Airport Rd via Kearny Mesa/I-805/I-5	<i>Rapid</i>	Miramar	Carlsbad, Encinitas, Solana Beach, Del Mar, City of San Diego,	10	14	22	2019 Federal RTP
L-94	Route 709	H St Trolley Station to Millennia	Connection from H St Trolley Station to Millennia via H St Corridor, Southwestern College	<i>Rapid</i>	NBSD, SSTC, NOLF	Chula Vista, Port of San Diego	37	89	101	2019 Federal RTP
L-95 <sup>2</sup>	Route 870	El Cajon to UTC via Santee, SR 52, I-805	Connection from El Cajon to UTC via Santee, SR 52, I-805	Transit	Miramar	City of San Diego, El Cajon, Santee	7	100	190	2019 Federal RTP
L-96	Route 890	El Cajon to Sorrento Mesa	Connection from El Cajon to Sorrento Mesa via SR 52, Kearny Mesa	Transit	Miramar	City of San Diego, El Cajon, Santee	12	16	31	2019 Federal RTP
L-97	Route 910	Coronado to Downtown San Diego	Connection from Coronado to Downtown San Diego	<i>Rapid</i>	Broadway, NBSD, NBC	City of San Diego, Coronado, Port of San Diego	26	54	65	2019 Federal RTP

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-98	Routes 688/689/690	San Ysidro to Sorrento Mesa	Route 688: San Ysidro to Sorrento Mesa via I-805/I-15SR 52 Corridors (peak only); Route 689: Otay Mesa Port of Entry to UTC/Torrey Pines via Otay Ranch/Millennia, I-805 Corridor (peak only); Route 690: Mid-City to Sorrento Mesa via I-805 Corridor (peak o	<i>Rapid</i>	Miramar	City of San Diego, National City, Chula Vista	458	623	757	2019 Federal RTP
L-99	Route 235	Escondido to Downtown Rapid (formerly Route 610)	Temecula (peak only) Extension of Escondido to Downtown Rapid (formerly Route 610)	<i>Rapid</i>	Miramar, MCRD, Broadway, NBSD, NBC	Oceanside, Vista, Escondido, City of San Diego	98	133	222	2019 Federal RTP
L-100	Route 28	Point Loma to Kearny Mesa via Old Town, Linda Vista	Connection from Point Loma to Kearny Mesa via Old Town, Linda Vista	<i>Rapid</i>	Miramar, NBPL, MCRD	City of San Diego, Port of San Diego	49	67	80	2019 Federal RTP
L-101	Route 588	Oceanside to Escondido	Sprinter Express	SPRINTER	Camp Pendleton	Oceanside, Vista, Escondido, San Diego County	244	332	545	2019 Federal RTP
L-102 <sup>4</sup>	Route 510	University City to Downtown San Diego	Blue line extension to University City providing public transportation in coastal San Diego County. Increased frequencies and front door access to Naval Base San Diego at 32nd St	Trolley	NBPL, MCRD, Coast Guard, Broadway, NBSD	City of San Diego, Port of San Diego	1,753	919	919	2019 Federal RTP

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L-103	Route 561	UTC to COASTER Connection	Trolley 561; UTC COASTER Connection (extension of Route 510)	Trolley	NBPL, MCRD, Coast Guard, Broadway, NBSD, SSTC, NOLF	City of San Diego, Coronado, National City, Chula Vista, Port of San Diego	343	467	581	2019 Federal RTP
L-104	Route 11	Spring Valley to SDSU	Connection from Spring Valley to SDSU via Southeast San Diego, Downtown, Hillcrest, Mid-City	Rapid	Broadway, NBSD	City of San Diego, San Diego County	113	154	199	2019 Federal RTP
L-105	Route 120	Kearny Mesa to Downtown San Diego	Connection from Kearny Mesa to Downtown San Diego via Mission Valley	Rapid	Broadway, NBSD	City of San Diego	78	127	145	2019 Federal RTP
L-106	Route 2	North Park to Downtown	Connection from North Park to Downtown San Diego via 30th St, Golden Hill	Rapid	Naval Medical Center, Broadway	City of San Diego	39	54	62	2019 Federal RTP
L-111	Harbor Drive	Tenth Avenue Marine Terminal (San Diego) to National City Marine Terminal	Harbor Drive Multimodal Corridor Improvements, including but not limited to: improvements at 32nd Street and Vesta Street; pedestrian crossings and bridges; various truck improvements; bikeway accommodations; street scape, safety, and parking improvements	Local Streets/Roads, Active Transportation	NBSD	City of San Diego, National City, Port of San Diego	273.0	371.0	unconstrained	2019 Federal RTP

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L-112	Route 510	Taylor St & Ash St	Phase II– Blue Line rail grade separations at Taylor St and Ash St	Trolley	NBPL, MCRD, Coast Guard	City of San Diego	226	307	505	2019 Federal RTP
L-113	Route 510	Mira Mesa to Border	Blue Line Rail Grade Separation	Trolley	NBPL, MCRD, Coast Guard, Broadway, NBSD, SSTC, NOLF	City of San Diego, Coronado, National City, Chula Vista, Port of San Diego	431	586	844	2019 Federal RTP
L-114	Route 540	Santa Fe to San Ysidro via downtown	Blue Line Express – Santa Fe Depot to San Ysidro via downtown	Trolley	NBPL, MCRD, Coast Guard, Broadway, NBSD, SSTC, NOLF	City of San Diego, Coronado, National City, Chula Vista, Port of San Diego	391	532	unconstrained	2019 Federal RTP
L-115	Route 562	Kearny Mesa to Carmel Valley	Phase II– Connection from Kearny Mesa to Carmel Valley	Trolley	Miramar	City of San Diego	633	2,191	4,389	2019 Federal RTP
L-116	Route 639	Otay to North Island	Connection from Otay Iris Trolley Station to North Island via Imperial Beach and Silver Strand, Coronado	Transit	NBC, SSTC, NOLF	City of San Diego, Coronado, Imperial Beach, Port of San Diego	54	73	unconstrained	2019 Federal RTP
L-120	I-5	SR-905 to SR-54	Add two Managed Lanes to eight Freeway Lanes (8F to 8F + 2ML)	Freeways and Highways	NBSD, SSTC, NOLF	City of San Diego, Imperial Beach, Chula Vista, Port of San Diego	308	542	627	2019 Federal RTP
L-121	SR 56	I-15 to I-5	Add general purpose lanes	Freeways and Highways	Miramar	City of San Diego	141	192	405	2019 Federal RTP
L-122	SR 78	I-5 to I-15	Add two managed lanes (6F to 6F + 2ML)	Freeways and Highways	Camp Pendleton	Oceanside, Carlsbad	1,192	1,621	2,127	2019 Federal RTP

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L-123	SR 94	I-805 to I-5	Add two managed lanes (8F to 8F + 2ML)	Freeways and Highways	Naval Medical Center, Broadway, NBSD, NBC	City of San Diego, Coronado	535	728	955	2019 Federal RTP
L-124	Routes 640A/640B	San Ysidro to Palomar	Route 640A: I-5– San Ysidro to Old Town Transit Center via City College; 640B: I-5 Iris Trolley/Palomar to Kearny Mesa via Chula Vista, National City and City College	<i>Rapid</i>	Naval Medical Center, Broadway, NBSD	City of San Diego, National City, Chula Vista, Port of San Diego	153	208	229	2019 Federal RTP
L-125	I-5/SR-94	North to East	Freeway connector	Freeways and Highways	Naval Medical Center	City of San Diego	131	178	390	Caltrans California Freight Mobility Plan (2014)
L-126	I-5/ I-8	East to North and South to West	Freeway connector	Freeways and Highways	NBPL, MCRD	City of San Diego	323	439	962	Caltrans California Freight Mobility Plan (2014)
L-127	I-15	Lake Hodges to SR-78	Add Two General Purpose Lanes	Freeways and Highways	Camp Pendleton, Miramar, MCRD, Coast Guard, Naval Medical Center, NBSD, NBC	Oceanside, City of San Diego, Coronado, San Diego County	232	316	691	Caltrans California Freight Mobility Plan (2014)
L-129	SR-905	I-5 to I-805	Add Four General Purpose Lanes	Freeways and Highways	SSTC	City of San Diego, Coronado	157	214	468	Caltrans California Freight Mobility Plan (2014)
L-130	I-8	Los Coches to Dunbar Road	Add Two General Purpose Lanes	Freeways and Highways	Naval Medical Center, Broadway, NBSD, NBC	City of San Diego, Coronado, San Diego County	131	178	390	Caltrans California Freight Mobility Plan (2014)



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L-131	I-5	I-5 to SR-54 West to South and North to East	Add High Occupancy Vehicle Connectors	Freeways and Highways	NBSD, NBC	City of San Diego, Coronado	121	145	319	Caltrans District System Management Plan (DSMP) (2015)
L-132	I-5	I-5 to SR-15 North to North and South to South.	Add High Occupancy Vehicle Connectors	Freeways and Highways	NBPL, MCRD, Coast Guard	City of San Diego	197	237	519	Caltrans District System Management Plan (DSMP) (2015)
L-133	Vesta Street	Over Harbor Drive	Install access enhancement bridge	Active Transportation	NBSD	City of San Diego, Port of San Diego	85.0	102.2	223.8	Caltrans District System Management Plan (DSMP) (2015)
L-134	Silver Strand Boulevard	Orange Avenue to Avenida Las Arenas	Class II bike lanes on southbound Silver Strand Boulevard with enhanced intersection crossings to connect to Silver Strand bike path.	Active Transportation	NBC	Coronado	0.03	0.04	0.1	City of Coronado Bike Plan / Bicycle Master Plan (2011)
L-135	Alameda Boulevard	Ocean Boulevard to First Street	Class II bike lanes along Alameda Boulevard with High Visibility Activated Crossings (HAWK) signals at the intersections at Third and Fourth Street	Active Transportation	NBC	Coronado	0.1	0.1	0.3	City of Coronado Bike Plan / Bicycle Master Plan (2011)

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L-136	H Avenue	Olive Avenue to First Street	Class II bike lanes along H Avenue with High Visibility Activated Crossings (HAWK) signals at the intersections at Third and Fourth Street	Active Transportation	NBC	Coronado	0.1	0.2	0.4	City of Coronado Bike Plan / Bicycle Master Plan (2011)
L-137	B Avenue	Ynez Place to First Street	Class II bike lanes along B Avenue with High Visibility Activated Crossings (HAWK) signals at the intersections at Third and Fourth Street	Active Transportation	NBC	Coronado	0.1	0.2	0.4	City of Coronado Bike Plan / Bicycle Master Plan (2011)
L-138	D Avenue	First Street to Tenth Street	Class III bike route along D Avenue with Shared Lane Bicycle Markings (Sharrows) and intersection improvements such as enhanced crosswalks at Third and Fourth Street	Active Transportation	NBC	Coronado	0.04	0.1	0.1	City of Coronado Bike Plan / Bicycle Master Plan (2011)
L-139	Silver Strand Bike Path	Tarawa Road & Tulagi Road	Bicycle signals	Active Transportation	NBC	Coronado, Port of San Diego	0.02	0.02	0.04	City of Coronado Bike Plan / Bicycle Master Plan (2011)
L-140	Silver Strand Bike Path	Tulagi Road	Bicycle signals	Active Transportation	NBC	Coronado, Port of San Diego	0.03	0.03	0.08	City of Coronado Bike Plan / Bicycle Master Plan (2011)

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L-141	Fourth Street	A Ave, C Ave and Pomona Street	Project includes bulb-outs at Fourth Street at A Avenue, C Avenue and Pomona Street (south side only). In design, set for construction FY 2017.	Local Streets/Roads	NBC	Coronado	0.2	0.3	0.6	City of Coronado Capital Improvement Program (CIP) (2016)
L-142	Chollas Creek	Dorothy Petway Park to Harbor Dr	The project will construct a multi-use path, traversing portions of two City of San Diego communities, Southeastern San Diego and Barrio Logan. The project runs from the Dorothy Petway Neighborhood Park at its eastern terminus to Harbor Drive	Active Transportation	NBSD	City of San Diego, Port of San Diego	-	3.2	7.1	City of San Diego Capital Improvement Program (CIP GIS Shapefile) (2017)
L-143	Miramar Road	I-805 Easterly Off Ramps to 300' east of Eastgate Mall	Widen Miramar Road to 8 lanes from I-805 easterly on and off-ramps to 300 feet east of Eastgate Mall. Includes dual left-turn lanes at Eastgate Mall.	Local Streets/Roads, Freeways and Highways	Miramar	City of San Diego	-	6.1	6.5	City of San Diego Capital Improvement Program (CIP GIS Shapefile) (2017)
L-144	13th Avenue	Bayshore Bike path to Tower Road/Iris Ave	Class II Bike lanes connecting the Bayshore Bikeway to the Imperial Beach airbase	Active Transportation	NOLF	None	-	0.002	0.004	Imperial Beach Capital Improvement Program (CIP) (2016)

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-145	Plaza Boulevard	Highland Avenue to Euclid Avenue	Widen Plaza Boulevard to construct a 6-lane regional arterial roadway.	Local Streets/Roads	NBSD	National City	7.2	7.2	7.7	National City Capital Improvement Program (CIP) (2017)
L-146	8th Street	Harbor Drive to D Avenue	Urban trail	Active Transportation	NBSD	National City, Port of San Diego	–	4.5	9.9	National City Downtown Specific Plan (2017)
L-147	8th Street	Harbor Drive to Roosevelt Avenue	Cycle Track on 8th Street between Harbor Drive and Roosevelt Avenue, connection with Bayshore Bikeway and NBSD	Active Transportation	NBSD	National City, Port of San Diego	–	0.2	0.4	National City Downtown Specific Plan (2017)
L-148	Harbor Drive	City Center Drive to Northern City Limits	Class I multi-use path on west side of Harbor Drive from Civic Center Drive to Northern City Limits and Class II bicycle lane on east side of Harbor Drive from Civic Center Drive to Northern City Limits	Active Transportation	NBSD	National City, Port of San Diego	–	1.4	3.2	National City Downtown Specific Plan (2017)
L-149	McKinley Ave	Civic Center Drive to 19th Street	Road diet to allow for widening of sidewalks and Class II bike lanes.	Active Transportation	NBSD	National City	–	0.5	1.1	National City SMART Foundations (2014)
L-150	Coastal Rail Trail	Oceanside Boulevard to Morse St.	Prepare an Environmental Impact Report for Coastal Rail Trail Project, a two-way pedestrian and bicycle path	Active Transportation	Camp Pendleton	Oceanside	0.2	0.2	0.2	Oceanside Capital Improvement Program (CIP) (2017)

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-151	Douglas Drive	Westport Drive to Festival Drive	Median Improvements	Local Streets/Roads	Camp Pendleton	Oceanside	0.1	0.1	0.1	Oceanside Capital Improvement Program (CIP) (2017)
L-152	North Embarcadero	West Broadway, from railroad to Harbor Drive, and Harbor Drive, from West Broadway to B Street	North Embarcadero Vision Plan	Active Transportation	Broadway	City of San Diego, Port of San Diego	31.0	35.3	37.8	Port Capital Improvement Program (CIP) (2014)
L-155	I-5	San Ysidro to Downtown San Diego	Add Pedestrian Over Crossing (POC) Americans with Disabilities Act (ADA) upgrades	Active Transportation	NBSD	City of San Diego, National City, Chula Vista, Port of San Diego	1.5	1.8	1.9	Caltrans District System Management Plan (DSMP) (2015)
L-156	Ocean Boulevard	NAS North Island to RD Dada Place	Class III bike route with Shared Lane Bicycle Markings (Sharrows)	Active Transportation	NBC	Coronado	–	0.1	0.3	City of Coronado Bike Plan / Bicycle Master Plan (2011)
L-157	Capistrano Dr	Capistrano Neighborhood	At the Del Mar Gate, commuter traffic into Pendleton spilling over into Capistrano Neighborhood. Consider improvements to gate security to maximize throughput and alleviate spillover traffic.	Local Streets/Roads, Gate	Camp Pendleton	Oceanside	–	1.8	3.9	December 2018 Workshop Camp Pendleton Table



PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-158	Coastline	North boundary of Camp Pendleton to south boundary	Class I bike path should be along the entire Coast within Camp Pendleton (west of I-5) open to the public. Bike path should be the extent of the base.	Active Transportation	Camp Pendleton	Oceanside	–	35.5	77.7	December 2018 Workshop Camp Pendleton Table
L-159	Mission Ave	Mission Avenue from Coast Hwy 101 to Canyon Dr	Mission Road identified as a readiness corridor. Readiness corridor is an agreement between Oceanside and Camp Pendleton to focus on improving congestion on this street to increase throughput.	Local Streets/Roads	Camp Pendleton	Oceanside	–	0.1	0.3	December 2018 Workshop Camp Pendleton Table
L-160	SR 76	I-5 to Melrose	SR 76 should be widened to 6 lanes from I-5 to Melrose	Freeways and Highways	Camp Pendleton	Oceanside	–	23	51	December 2018 Workshop Camp Pendleton Table
L-161	I-5	SR 78 to Harbor Drive	I-5 widening with new interchange direct access ramp HOV from SR 78 to Harbor Drive	Freeways and Highways	Camp Pendleton	Oceanside	–	59	128	December 2018 Workshop Camp Pendleton Table
L-163	I-5	Camp Pendleton to Downtown	ML/HOT Lanes on I-5 from Pendleton to Downtown	Freeways and Highways	Camp Pendleton, Miramar, NBPL, MCRD, Coast Guard, Naval Medical Center, NBSD, NBC	Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, City of San Diego, Coronado	–	14	31	December 2018 Workshop NBPL MCRD CG Table

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-164	I-8	I-5 to East County	ML/HOT Lanes on I-8 from I-5 to East County	Freeways and Highways	Miramar, NBPL, Coast Guard, Broadway, Naval Medical Center, NBSD, NBC	City of San Diego, La Mesa, Lemon Grove, El Cajon, Coronado, San Diego County	-	10	21	December 2018 Workshop NBPL MCRD CG Table
L-165	San Diego Bay	Bayside NBPL to Harbor Drive Annex, Downtown SD, Coronado, and NBSD	Water Taxi / Ferry connecting Bayside NBPL with Harbor Drive Annex, Downtown San Diego, Coronado, and NBSD	Transit	NBPL, Broadway, NBSD, NBC	City of San Diego, Coronado, Port of San Diego	-	71	155	December 2018 Workshop NBPL MCRD CG Map
L-166	Rosecrans St	I-5 to NBPL Gate	Time Limited Carpool Lane to improve peak period HOV lane on I-5	Freeways and Highways	NBPL, MCRD	City of San Diego, Port of San Diego	-	1	1	December 2018 Workshop NBPL MCRD CG Table
L-167	Rosecrans St	I-5 to Lytton St	Planned- Class I Bike (Shown in the Midtown Community Plan Update)	Active Transportation	NBPL	City of San Diego	-	1.8	4.0	December 2018 Workshop NBPL MCRD CG Table
L-168	Rosecrans St	I-5 to NBPL Gate	Synchronize signals and add TSP from I-5 to NBPL Gate	Local Streets/Roads	NBPL, MCRD	City of San Diego, Port of San Diego	-	0.5	1.0	December 2018 Workshop NBPL MCRD CG Table
L-169	Rosecrans St	Kellogg Street to Kerrick Road	Bus Connection (Transit)	Transit	NBPL	City of San Diego	-	1	3	December 2018 Workshop NBPL MCRD CG Table
L-170	Kellogg St	Rosecrans St to Catalina Blvd	Bus/shuttle service	Transit	NBPL	City of San Diego	-	6	12	December 2018 Workshop NBPL MCRD CG Table

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-172	TBD	I-5 to Sassafras St	New highway ramp/connection from I-5 to Sassafras St	Freeways and Highways	NBPL, MCRD, Coast Guard	City of San Diego	–	11	23	December 2018 Workshop NBPL MCRD CG Table
L-173	Within Airport	Trolley Station at W Palm Street to Airport Terminal	Monorail, LRT, or BRT connection from Trolley Station to Airport terminal; high-capacity transit connection	Transit	All	Region	–	4,320	9,461	December 2018 Workshop NBPL MCRD CG Table
L-174	Pacific Hwy, Barnet Ave	Witherby St to Tuscaloosa St	Add bike lanes and sidewalks/trails	Active Transportation	NBPL, MCRD	City of San Diego	–	2.0	4.5	December 2018 Workshop NBPL MCRD CG Table
L-176	Within Miramar	East side of Miramar	Increase in bike access to the base. Needs to continue or further develop the access proposed along Carroll Canyon with access to the base.	Active Transportation	Miramar	City of San Diego, Santee, County of San Diego	–	0.2	0.4	December 2018 Workshop Miramar
L-178	Across Harbor	NASNI to NBPL	Bridge connecting Point Loma peninsula to Coronado Island. Prefer wherever the shortest distance would be (lower capital cost if smaller bridge)	Local Streets/Roads	NBPL, NBC	City of San Diego, Coronado, Port of San Diego	–	2,400.0	5,256.1	December 2018 Workshop NBC Table
L-179	Across Harbor	NASNI to Embarcadero Marina	Ferry service or Bridge directly to NASNI from downtown to increase access to transit	Transit	Broadway, NBC	City of San Diego, Coronado, Port of San Diego	–	35	77	December 2018 Workshop NBC Table

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-180	Across Harbor	NASNI to Broadway	Bridge connecting downtown San Diego to Coronado Island. Prefer wherever the shortest distance would be (lower capital cost if smaller bridge)	Local Streets/Roads	Broadway, NBSD, NBC	City of San Diego, Coronado, Port of San Diego	–	3,000.0	6,570.1	December 2018 Workshop NBC Table
L-181	Over Silver Stand Blvd	Connecting Ocean and Bay sides of NAB	Pedestrian overpass to avoid crossing SR75 and to connect both sides of NAB since training is on one side and food is on the other side.	Active Transportation	NBC	Coronado, Port of San Diego	–	18.0	39.5	December 2018 Workshop NBC Table
L-182	SR 75	Northern boundary of NAB to northern boundary of SSTC	Bayshore Bikeway– wider shoulder for commuters, recreation, pedestrian	Active Transportation	NBC	Coronado, Port of San Diego	–	4.4	9.6	December 2018 Workshop NBC Table
L-183	SR 75	I-5 to SSTC gate via Palm Ave	Traffic signal synchronization to expedite SSTC from I-5	Local Streets/Roads	SSTC, NOLF	Coronado, Imperial Beach	–	0.4	0.8	December 2018 Workshop NBC Table
L-184	I-5	I-8 to Palm Ave	Need HOV Lane or Toll Lanes on I-5 south of I-8.	Freeways and Highways	NBPL, MCRD, Broadway, NBSD, NBC, SSTC, NOLF	City of San Diego, Coronado, Imperial Beach, National City, Chula Vista, Port of San Diego	–	8	18	December 2018 Workshop NBC Table
L-185	3rd St, 4th Ave	Glorietta Blvd to NBC Gates on 3rd & 4th	HOV Lane on 3rd St and 4th Ave	Local Streets/Roads	NBC	Coronado	–	0.2	0.4	December 2018 Workshop NBC Table

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-186	3rd St	Glorietta Blvd to NBC Gate on 3rd St	Signal synchronization along 3rd Street	Local Streets/Roads	NBC	Coronado	–	0.1	0.2	December 2018 Workshop NBC Table
L-187	Carroll Road	Camino Santa Fe to Miramar Rd	One-way class IV, both sides	Active Transportation	Miramar	City of San Diego	–	0.3	0.6	December 2018 Workshop Miramar
L-188	Carroll Rd	500 ft north of Miramar Rd to within Miramar	2-way class IV southside	Active Transportation	Miramar	City of San Diego	–	0.1	0.2	December 2018 Workshop Miramar
L-189	Miramar Road	I-15 to I-805	Protected Bike Lanes or Cycle Track on Southside, Turn Westbound bike lane into cycle track	Active Transportation	Miramar	City of San Diego	–	2.2	4.8	December 2018 Workshop Miramar
L-190	Black Mountain Road	Mira Mesa Blvd to Miramar Rd	Black Mtn Rd. Expansion of Bike lane	Active Transportation	Miramar	City of San Diego	–	0.5	1.0	December 2018 Workshop Miramar
L-191	SR 75	SR 75	SR 75 signal synchronization	Freeways and Highways	NBC, SSTC, NOLF	Coronado, Imperial Beach, Port of San Diego	–	0.4	1	December 2018 Workshop NBC Table
L-192	I-805	I-8 to SR 54	Need HOV Lane or Toll Lanes on I-805 south of I-8.	Freeways and Highways	NBSD, SSTC, NOLF	City of San Diego, National City, Chula Vista	–	5	11	December 2018 Workshop NBC Table



PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-193	Region-wide	Region-wide	Slug Line Optimization	Freeways and Highways	Camp Pendleton, Miramar, NBPL, MCRD, Coast Guard, Broadway, Naval Medical Center, NBSD, NBC, SSTC, NOLF	Region	–	0.3	1	December 2018 Workshop NBPL MCRD CG Table
L-194	4th St	End of bridge on island to B Ave	Allowing vehicles to turn left early, which alleviates queuing to Orange Avenue. Those trying to get to NAB don't need to travel up to Orange because they are southbound. This should be a point at the end of the bridge onto the first arterial.	Local Streets/Roads	NBC	Coronado	–	0.1	0.2	December 2018 Workshop NBC Table
L-195	Harbor Drive	From the intersection of Santa Fe Dr and Harbor Dr to south Harbor Dr	The westside sidewalk only connects to the bus stop at Harbor Drive. Need to extend sidewalk and potentially add crosswalks into the community to facilitate pedestrian access between the community and Del Mar Gate	Active Transportation	Camp Pendleton	Oceanside	–	0.2	0.4	December 2018 Workshop Camp Pendleton Table

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
L-196	Miramar Road	From I-15 to West Gate	Miramar Way is the primary access from I-15 and needs to be evaluated as congestion continues to increase.	Local Streets/Roads	Miramar	City of San Diego	-	0.3	0.7	December 2018 Workshop Miramar Table
L-197	Rail Alignment	From Santa Fe Depot to 32nd Street Station	Extend Coaster connection to NBSD	Transit	NBSD	City of San Diego, National City, Port of San Diego	-	14	31	December 2018 Workshop NBPL MCRD CG Table
L-198	Bay Marina Dr	From east of I-5 to gates on Terminal Ave	Provide an active transportation connection	Active Transportation	NBSD	National City, Port of San Diego	-	0.3	0.6	December 2018 Workshop NBSD Table
L-199	SR 75	SR 75 in Imperial Beach to 3rd Street in Coronado	Widen SR 75 Bike Lane (Serves Commuter and Recreational Purposes)	Active Transportation	NBC, SSTC, NOLF	Coronado, Imperial Beach	-	3.5	7.6	May 2019 Military Working Group
L-200	SR 75	SR 75 Palm Ave from I-5 to NOLF and Coastal Campus	Carpool/BRT Lane on SR 75 Palm to NOLF or Coastal Campus	Freeways and Highways	SSTC, NOLF	Coronado, Imperial Beach	-	0.4	1	May 2019 Military Working Group
P-2	National City	National City Marine Terminal	National City Marine Terminal (NCMT) Marine Cargo Staging and Handling Projects, including but not limited to: construct garages for additional roll-on/roll-off cargo storage, wharf extension to create two new berths, and improvements to facilitate "marine highway" cargo	Local Streets/Roads	NBSD	National City, Port of San Diego	95.0	129.0	unconstrained	2019 Federal RTP

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
P-3	National City	National City Marine Terminal	National City Marine Terminal Freight Rail Improvements, including but not limited to: additional rail storage facilities in the vicinity of the balloon track	Freight Rail	NBSD	National City, Port of San Diego	3	4	unconstrained	2019 Federal RTP
P-4	Tenth Avenue	Tenth Avenue Marine Terminal	Tenth Avenue Marine Terminal (TAMT) Marine Cargo Staging and Handling Projects, including but not limited to: enhanced open storage, k shed demolition, carbo handling infrastructure improvements, wharf reinforcements, additional crane, on-dock shorepower	Local Streets/Roads	NBSD	National City, Port of San Diego	88.0	120.0	unconstrained	2019 Federal RTP
P-5	Tenth Avenue	Tenth Avenue Marine Terminal	Tenth Avenue Marine Terminal Freight Rail Improvements: including but not limited to track upgrades and increased staging area for rail cargo and loading	Freight Rail	NBSD	National City, Port of San Diego	28	38	unconstrained	2019 Federal RTP
P-6	I-15	I-15 to Kinder Morgan MV Terminal	I-15 Access to Kinder Morgan MV Terminal	Freeways and Highways	NBSD	City of San Diego	-	-	unconstrained	2019 Federal RTP

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
P-9	Region-wide	Region-wide	Phase I: Vehicles, transit system rehabilitation, maintenance facilities, ITS, regulatory compliance, Park and Ride, transit center expansions to enhance the experience for commuting by improving efficiency and reliability of services	Transit	All	Region	632	721	798	2019 Federal RTP
P-10	Region-wide	Region-wide	Phase II: Vehicles, transit system rehabilitation, maintenance facilities, ITS, regulatory compliance, Park and Ride, transit center expansions to enhance the experience for commuting by improving efficiency and reliability of services	Transit	All	Region	2,519	2,872	3,843	2019 Federal RTP

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
P-11	Region-wide	Region-wide	Phase III: Vehicles, transit system rehabilitation, maintenance facilities, ITS, regulatory compliance, Park and Ride, transit center expansions to enhance the experience for commuting by improving efficiency and reliability of services	Transit	All	Region	3,266	3,724	6,839	2019 Federal RTP
P-12	TBD	Various Locations	Includes Safe Routes to Transit projects at new transit station areas, local bike projects, local pedestrian/safety/traffic calming projects, regional bicycle and pedestrian programs and Regional Safe Routes to School implementation.	Active Transportation	All	Region	857.3	857.0	1,179.0	2019 Federal RTP



PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
P-13	TBD	Various Locations	Includes Safe Routes to Transit projects at new transit station areas, local bike projects, local pedestrian/safety/traffic calming projects, regional bicycle and pedestrian programs and Regional Safe Routes to School implementation.	Active Transportation	All	Region	368.3	600.0	654.0	2019 Federal RTP
P-16	Coronado	Coronado	Wayfinding Sign Plan for Citywide active transportation programs	Active Transportation	NBC	Coronado	–	0.3	0.7	City of Coronado Capital Improvement Program (CIP) (2016)
P-17	10th Street	at Alameda Boulevard	Analyze geometric configurations of the irregular intersection of Tenth Street and Alameda Boulevard to determine if the intersection can be reconfigured to enhance pedestrian crossing and calm traffic speeds on Alameda Boulevard.	Active Transportation	NBC	Coronado	–	0.03	0.08	City of Coronado Capital Improvement Program (CIP) (2016)
P-18	Fourth Street	east of Orange Avenue	Speed table east of Orange Avenue on Fourth Street	Local Streets/Roads	NBC	Coronado	–	0.01	0.01	City of Coronado Capital Improvement Program (CIP) (2016)

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P-19	Fourth Street	at Alameda Boulevard	Traffic signal at intersection (exit to NAS North Island)	Local Streets/Roads	NBC	Coronado	–	0.7	1.6	City of Coronado Capital Improvement Program (CIP) (2016)
P-22	32nd Street	Norman Scott Rd	Install signal poles with longer mast arms; remove signal poles off medians; upgrade vehicle heads to 12" LED; install Polara APS	Local Streets/Roads	NBSD	City of San Diego, Port of San Diego	–	0.7	1.6	City of San Diego Capital Improvement Program (CIP GIS Shapefile) (2017)
P-23	Main St	Vesta St	Traffic signal improvements	Local Streets/Roads	NBSD	City of San Diego	–	0.7	1.6	City of San Diego Capital Improvement Program (CIP GIS Shapefile) (2017)
P-24	National City	National City	Traffic calming measures such as corner bulb-outs, pedestrian actuated flashing crossing signs and high intensity striping, new lighting and pedestrian curb ramps for ADA compliance to enhance safety and access at 14 existing crosswalks Citywide	Active Transportation	NBSD	National City	1.3	1.3	1.4	National City Capital Improvement Program (CIP) (2017)

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
P-25	National City	National City	Wayfinding Sign Plan for Citywide active transportation programs and a designated truck route	Active Transportation	NBSD	National City, Port of San Diego	1.1	1.2	1.2	National City Capital Improvement Program (CIP) (2017)
P-27	Harbor Drive	at 8th Street	Pedestrian and bicycle connections to NBSD gate	Active Transportation	NBSD	National City, Port of San Diego	–	2.9	6.4	National City Downtown Specific Plan (2017)
P-28	8th Street	at I-5 SB off-ramp	Signalize intersection and eliminate free right-turn	Local Streets/Roads	NBSD	National City	–	0.8	1.7	National City Downtown Specific Plan (2017)
P-29	8th Street	Hoover Avenue	Signalize intersection	Local Streets/Roads	NBSD	National City	–	0.8	1.7	National City Downtown Specific Plan (2017)
P-30	Cleveland Street	Pier View Way and Civic Center Drive	Construction of a mixed-use project with commercial, and up to 356 public parking spaces on Lot 23. The public parking structure could serve the Oceanside Transit Center	Transit, Land Use	Camp Pendleton	Oceanside	12	12	26	Oceanside Capital Improvement Program (CIP) (2017)

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
P-31	Douglas Drive	Old River to Pala	Douglas Bridge Seismic Retrofit: federally funded project to retrofit the bridge that carries Douglas Drive over San Luis Rey River. Caltrans will be partner agency, with financing through the Highway Bridge Rehabilitation and Replacement Program (HBRRP)	Local Streets/Roads	Camp Pendleton	Oceanside	0.4	0.4	0.4	Oceanside Capital Improvement Program (CIP) (2017)
P-32	National City	Throughout National City	National City Wayfinding Signage Project	Active Transportation	NBSD	National City	0.3	0.3	0.4	Port Capital Improvement Program (CIP) (2014)
P-33	32nd Street	Harbor Drive to I-5	Grade Separated Improvements: a partially raised tee intersection for turning movement from Harbor Drive to I-5	Local Streets/Roads	NBSD	City of San Diego, Port of San Diego	–	78.0	170.8	Port CIP Caltrans Trade Corridors Improvement Fund
P-35	Civic Center Drive	Civic Center Drive and I-5	Create a direct connection with Harbor Drive and Tidelands Avenue, Signalized Wilson Avenue at Civic Center Drive, add northbound lane on Wilson Avenue, widen Northbound 1-5 ramp	Freeways and Highways	NBSD	National City	–	114	250	Port CIP Caltrans Trade Corridors Improvement Fund
P-36	8th Street and Yama Street	Connections to NBSD	Electric shuttle system	Micromobility, Streetcar/Streetcar	NBSD	National City	–	3	7	National City Downtown Specific Plan (2017)

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P-38	Camp Pendleton Station	Camp Pendleton Station	Location confirmed. Significant development around this area. Camp Pendleton confirmed station is not being used. Reconsider using station for commuter access.	Rail	Camp Pendleton	Oceanside	–	5	10	December 2018 Workshop Camp Pendleton Table
P-39	Mission Road	Intersection of Mission Rd and E Vista Wy	Park and Ride at Mission Rd and East Vista Wy	Park & Ride	Camp Pendleton	Oceanside, San Diego County	–	1	3	December 2018 Workshop Camp Pendleton Table
P-40	Melrose Dr	From Melrose Dr to N River Rd	Bridge connecting Melrose Dr and N River Rd over existing river. Oceanside Planner noted that there would be no transit planned until a third bridge was built on Melrose	Local Streets/Roads	Camp Pendleton	Oceanside	–	10.0	21.9	December 2018 Workshop Camp Pendleton Table
P-41	TBD	TBD	Build more housing using public-private partnership	Land Use	NBPL, MCRD	City of San Diego	–	N/A	N/A	December 2018 Workshop NBPL MCRD CG Table
P-42	Pacific Highway	Intersection of Barnett Ave and Pacific Hwy	Pedestrian crossing upgrades (sidewalks, bulbous, etc.)	Local Streets/Roads	NBPL, MCRD	City of San Diego	–	0.4	0.9	December 2018 Workshop NBPL MCRD CG Table
P-43	Rosecrans St	Intersection of Rosecrans St and Sports Arena Blvd	Pedestrian crossing upgrades (sidewalks, bulbouts, etc.)	Local Streets/Roads	NBPL, MCRD	City of San Diego	–	0.4	0.9	December 2018 Workshop NBPL MCRD CG Table

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P-48	TBD	Miramar	Lot of unexploded ordinance which hasn't been cleared yet and that has made expansion of Miramar slow.	Land Use	Miramar	City of San Diego	–	N/A	N/A	December 2018 Workshop Miramar Table
P-51	Ocean Blvd	Gate	Move gates further in to extend queuing space	Gate	NBC	Coronado	–	0.8	1.7	December 2018 Workshop NBC Table
P-52	4th Street	Gate	Move gates further in to extend queuing space	Gate	NBC	Coronado	–	0.6	1.3	December 2018 Workshop NBC Table
P-53	1st Street	Gate	Move gates further in to extend queuing space	Gate	NBC	Coronado	–	1.9	4.2	December 2018 Workshop NBC Table
P-54	3rd Street	Gate	Expedite flow through gate with technology	Gate	NBC	Coronado	–	1.8	3.9	December 2018 Workshop NBC Table
P-55	East Side of Bay	NBC	Park and Ride on the east side of the bay with a direct service connection to the NBC bases	Park & Ride	NBSD, NBC	City of San Diego, Coronado	–	5	10	December 2018 Workshop NBC Table
P-57	NBC	East County San Diego to NASNI	Express bus from east county residential to NASNI	Transit	NBC	City of San Diego, Coronado	–	8	18	December 2018 Workshop NBC Table
P-58	NBC	Chula Vista to NASNI	Express bus from Chula Vista to North Island	Transit	NBC	Chula Vista, Port of San Diego	–	8	18	December 2018 Workshop NBC Table
P-59	NBC	TBD	MTS service onto base	Transit	NBC	None	–	88	192	December 2018 Workshop NBC Table



PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
P-61	Silver Stand Blvd	901 service route	Service improvements to bypass congestion for 901 route.	Transit	NBC	Coronado, Imperial Beach	–	1	2	December 2018 Workshop NBC Table
P-62	Imperial Beach Blvd	From Trolley Station to Imperial Beach	Consider microtransit to support first/last mile access to trolley. Specifically, for IB area.	Micromobility	NOLF	Imperial Beach	–	3	7	December 2018 Workshop NBC Table
P-63	South Bay	Service between naval facilities	Circulating shuttle connecting all Navy base facilities	Transit	NBPL, NBSD, NBC	City of San Diego, Coronado, Imperial Beach, National City	–	3	7	December 2018 Workshop NBC Table
P-64	Silver Stand Blvd	Gate	Signal at new gate on Silver Strand Training Complex	Gate	SSTC	Coronado, Imperial Beach	–	0.8	1.7	December 2018 Workshop NBC Table
P-66	Silver Strand	From Blue Line Trolley Station west of I-5 to bases in Imperial Beach	Trolley Station to IB	Transit	NBC	Imperial Beach	–	20	44	December 2018 Workshop NBC Table
P-67	Imperial Beach Blvd	From Trolley Station to Imperial Beach	Trolley Station to IB	Transit	SSTC, NOLF	Coronado, Imperial Beach	–	Currently being Planned	–	December 2018 Workshop NBC Table
P-70	City of San Diego	Mira Mesa	6,000 more housing units In Mira Mesa. Evaluate connection to Miramar	iCommute	Miramar	City of San Diego	–	N/A	N/A	December 2018 Workshop Miramar Table
P-71	TBD	TBD	Rezone to allow for affordable housing	Land Use	Miramar	City of San Diego	–	N/A	N/A	December 2018 Workshop Miramar Table

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
P-72	I-15	Miramar Way Exit on I-15	Add HOV exit into Miramar with potential of adding express lane access for HOV and reversible gates during peak direction	Freeways and Highways	Miramar	City of San Diego	–	9	20	December 2018 Workshop Miramar Table
P-73	I-15	TBD	Project is to incorporate mitigation measures on southbound I-15 to increase throughput (e.g. extended managed lanes) and address congestion	Freeways and Highways	Camp Pendleton, Miramar, MCRD, Coast Guard, Naval Medical Center, NBSD, NBC	Oceanside, City of San Diego, Coronado, San Diego County	–	3	7	December 2018 Workshop Camp Pendleton Table
P-74	I-15	I-15 to Fallbrook Gate on Campus Pendleton	This was part of a broader proposal to do a 'corridor study' for the I-15 to Fallbrook Gate and look at different solutions that could include a P&R among other ideas.	Freeways and Highways	Camp Pendleton	Oceanside, San Diego County	–	0.3	1	December 2018 Workshop Camp Pendleton Table
P-75	East Mission Road	East Mission Road	"corridor study" for East Mission Road to address this concern and identify recommended solutions for mitigation.	Local Streets/Roads	Camp Pendleton	Oceanside	–	0.3	0.7	December 2018 Workshop Camp Pendleton Table
P-76	East Mission Road	East Mission Road	One lane in each direction and needs to be widened.	Local Streets/Roads	Camp Pendleton	Oceanside	–	12.4	27.1	December 2018 Workshop Camp Pendleton Table

PID	Facility	Project Extents	Description	Project Type	Relevant Military Stakeholders	Relevant Jurisdiction Stakeholders	Cost (\$2014); millions	Cost (\$2019); millions	Cost (\$YOE); millions	Source
P-80	Miramar	Miramar parking areas	Shared parking "Mobility Hubs" on base	Micromobility	Miramar	None	–	3	7	December 2018 Workshop Miramar Table
P-81	TBD	TBD	Increase on-base housing	Land Use	Miramar	City of San Diego	–	N/A	N/A	December 2018 Workshop Miramar Table
P-82	Black Mountain Road	Miramar College and Sorrento Valley COASTER station to Miramar	Connect Miramar to Miramar College and Sorrento Valley COASTER station	Micromobility	Miramar	City of San Diego	–	3	7	May 2019 Military Working Group
P-83	Miramar	Miramar	NEV on base to provide internal circulation	Micromobility	Miramar	None	–	3	7	December 2018 Workshop Miramar Table

<sup>1</sup> Project update in Federal RTP; using 2015 RTP as project Base Year cost and escalated to Federal RTP phase year.

<sup>2</sup> Updated cost estimate in Federal RTP accounts for decrease in 2014 to 2019 cost.

<sup>3</sup> Operations not costed for service in Regional Plan

<sup>4</sup> 2019 cost decrease due to project being partially under construction.



# Appendix C

Developing the Project Inventory

# Developing the Project Inventory

The Strategy's Project Inventory represents a region-wide catalogue of multimodal transportation improvements (infrastructure and non-infrastructure projects) that could help address multimodal access needs to military installations and alleviate congestion on local roadways surrounding military installations. As future funding opportunities arise, the San Diego Regional Military Working Group (MWG) will be able to consult this consolidated list and use the associated Screening Tool ([Appendix E](#)) for efficient selection of applicable projects.

## The Process

In order to develop a comprehensive and usable list of projects relevant to potential funding opportunities, the Project Development Team (PDT) implemented extensive outreach. The Strategy's community outreach helped with identifying existing planned and new projects and programs for the Project Inventory ([Appendix B](#)). The development of the Project Inventory included stakeholder interviews; a thorough review of transportation improvement projects published in local planning documents such as CIPS, general plans, and the Regional plan; various agency project lists; a stakeholder workshop; and frequent updates and feedback from the MWG and PDT. The Project Inventory also includes new projects and programs developed by the MWG throughout the outreach process.

### Stakeholder Interviews

Stakeholder interviews were held with MWG members and agencies who contribute to the mobility of military personnel region-wide. The interviews were performed to help identify appropriate documents, transportation needs, and people that should be referenced while developing the Project Inventory. To help initiate the interviews, stakeholders were asked:

- The following documents are being reviewed as part of this data gathering to identify current planned projects and policies: (Insert responses). Are there any other documents we should be looking at?
- Are there any old projects, strategies, or ideas that have been tested, identified, or thought of in the past but did not work as intended or did not materialize as anticipated?
- Are there any new projects, strategies, or ideas that you have to address transportation issues?
- Are there regional transportation-related programs you have identified that you specifically support or do not support?
- Are there specific areas, either physical infrastructure programs or behavioral patterns, that you would like to note as part of this data gathering?

### Stakeholder Workshop and Continuous Check-Ins

Members of the MWG and stakeholders from various community groups, military installations, local jurisdictions, and agencies were invited to attend and participate in a stakeholder workshop in December 2018. The workshop was an opportunity for stakeholders to work collaboratively to identify military access needs. It was also an opportunity for stakeholders to add additional projects from published documents or new projects and strategies brainstormed during the workshop activities. Throughout the development of the Project Inventory, the MWG and PDT were given opportunities to review and provide feedback. [Appendix H](#) details the project's outreach strategy.

### Published Document Scan

To help develop the Project Inventory, published documents containing transportation infrastructure and non-infrastructure projects were reviewed to help identify projects that may impact military mobility in the regional transportation network. Many of the documents were referenced by MWG members and stakeholders during the stakeholder interviews and early PDT meetings.

## ***List of Published Documents Reviewed in the Development of the Project Inventory***

### ***Caltrans***

- DSMP District 11 Profile (2016)
- DSMP District 11 Strategic Initiatives (2016)
- DSMP District 11 Project List (2015)
- Transportation Concept Report SR-54 (2014)
- Transportation Concept Report SR-75 (2016)
- Transportation Concept Report SR-282 (2016)
- Transportation Concept Report SR-76 (2016)
- Transportation Concept Report SR-125 (2016)
- Transportation Concept Report I-5 (2017)
- Transportation Concept Report I-15 (2012)
- California Freight Mobility Plan (2014)
- State Highway Operation / Protection Program (2018)
- TCIF Port Access Improvement Projects: 32nd Street
- North Coast Corridor Program
- Central I-5 Corridor Study

### ***City of Coronado***

- City of Coronado Circulation Element
- City of Coronado Bicycle Plan
- City of Coronado FY 2016-17 to FY 2018-19 Capital Improvement Program

### ***City of Imperial Beach***

- City of Imperial Beach General Plan & Local Coastal Plan
- FY 2015-16 and 2016-17 CIP Implementation Plan Project List
- FY 2018 and FY 2019 CIP 2-year Implementation Plan

### ***Military***

- Navy Hospital Transportation Demand Management Plan
- The Future of Mobility: Lyft at Camp Pendleton presentation by Major Brandon Newell
- Final Navy TDM Study (2010)
- Naval Base San Diego Survey Data (2016)
- Naval Base Coronado Survey Data (2015)
- US Coast Guard Survey Data (2017)

### ***City of National City***

- National City General Plan
- FY 2018 Capital Improvement Projects
- National City Downtown Specific Plan
- National City SMART Foundation

### ***City of Oceanside***

- City of Oceanside Five Year Capital Improvement Program Budget FY 2017-18
- Regional Mobility Hub Implementation Strategy
- Oceanside General Plan Circulation Element
- Oceanside Bicycle Master Plan
- Oceanside Pedestrian Master Plan

### ***Port of San Diego***

- San Diego Port Master Plan Update Assessment Report
- Port of San Diego Port Master Plan
- Capital Improvement Program FY 2014 - FY 2018

### ***City of San Diego***

- City of San Diego General Plan Housing Element 2013-2020
- City of San Diego General Plan Mobility Element
- City of San Diego Climate Action Plan
- GIS Dataset for Capital Improvements Program

### ***County of San Diego***

- County of San Diego Department of Public Works Five-Year Capital Improvement Plan for FY 2017-18 to FY 2021-22
- County of San Diego Mobility Element General Plan





# Appendix D

## Project Prioritization Methodology

# Project Prioritization Methodology

The recommended prioritization methodology was developed by the Project Development Team (PDT) and San Diego Regional Military Working Group (MWG) to identify projects that most aligned with the MWG's Mission, Vision, and Values and provided greatest benefit to the MWG's stakeholders. The methodology was applied to the Project Inventory (**Appendix B**) and resulted in a Top Project List.

## Step 1: Identify Projects that Align with the San Diego Regional Military Working Group's Mission, Vision, and Values

### Proposed Definition of the Military Working Group's Mission, Vision, and Values

The PDT developed an MWG Mission, Vision, and Values (MVV) to help guide the prioritization process and provide initial screening criteria. Utilizing the MWG charter, Strategy Scope of Work, and Caltrans grant application, the following definition for MVV was developed:

#### ***Military Working Group's Mission, Vision, and Values***

The Strategy seeks to ***facilitate dialogue*** and ***find common ground*** between the military installations in San Diego County and adjacent local communities related to the region's transportation system.

Military bases need the transportation system to ***support mission readiness*** through the safe movement of personnel while also enhancing the quality of life of service members. Nearby local jurisdictions need to operate and maintain transportation facilities in a state of good repair that ***equitably serve the needs of all community members*** including residents, employees, and businesses. The MMAS contributes towards a transportation system that ***improves safety*** for all users while ***reducing travel times, vehicle miles travelled (VMT) and greenhouse gas (GHG) emissions*** as outlined in Caltrans Sustainable Community Grant requirements.

Three initial screening criteria were developed in order to identify projects that are likely to be the most impactful to MWG stakeholders and which align with the MVV. The resulting condensed inventory was passed through to a detailed evaluation phase outlined in Step 2. The MWG provided feedback throughout this process.

#### ***Proposed Screens:***

***Screen 1:*** Directly benefits at least two stakeholders, including one installation and one local jurisdiction

- Purpose of screen: to eliminate single-stakeholder improvements
- If a project passes this screen, it will move onto the next screen

***Screen 2:*** Improves multimodal travel

- Purpose of screen: to eliminate non-multimodal projects
- If a project passes this screen, it will move onto the next screen

***Screen 3:*** Project is adequately defined to proceed to detailed evaluation

- Purpose of screen: to identify projects with defined project scope & project extents that allow for detailed evaluation
- If a project passes this screen, it will move onto the next step

### **Validation of Screening by MWG:**

- “Are there any projects that were screened out that you wish to advance to detailed evaluation step?”

## **Step 2: Detailed Evaluation for Screened Projects List**

Projects which passed the initial screening underwent a secondary evaluation driven by additional criteria outlined below. To support this analysis, GIS and technical expertise were leveraged to determine each project's final score.

### **Detailed Evaluation: Secondary Screening Criteria**

#### **Congestion Relief (Max of 4 Points)**

A score of 0-2 applied to project based on heat map of congestion experienced. **GIS analysis of commute periods using Google maps or other readily available source.**

- 2 pts – High congestion area or an area with large anticipated near-term growth
- 1 pt – Moderate congestion area or an area with a moderate anticipated near-term growth
- 0 pts – Low congestion area or an area with a minimal anticipated near-term growth

A score of 0-2 applied to project based on the impact towards relieving congestion. **A PDT traffic engineer to recommend score.**

- 2 pts – High relief potential
- 1 pt – Medium relief potential
- 0 pts – Low relief potential

*Note: Leaning on technical expert to make judgement*

#### **Increases Safety (Max of 4 points)**

A score of 0-2 applied to project based on heat map of collisions. **GIS analysis of existing collision data from Transportation Injury Mapping (TIMS) to be used.**

- 2 pts – Located in an area whose number of collisions is significantly higher than the state's average
- 1 pt – Located in area whose number of collisions is around the state's average
- 0 pts – Located in an area whose number of collisions is below the state's average

A score of 0 or 2 applied to project based on whether a project is an FHWA approved safety countermeasure. **A PDT traffic engineer to recommend score.**

- 2 pts – Incorporates approved safety countermeasures
- 0 pts – Does not incorporate approved safety countermeasures

#### **Increases Transportation Options (Max of 4 points)**

A score of 0-1 applied to project based on the impact towards increasing viable and convenient transportation options. **A PDT transportation planner to determine score.**

- 1 pt for each qualifier met:
  - Incorporates approved safety countermeasures
  - Connects to high capacity transit or provides congestion relief on transit road
  - Improvement on a high throughput facility (freeway)
  - Facility or program is located within a smart growth opportunity area
  - Improvement adds a new option not previously available or improves existing transportation option

### Step 3: MWG Validation of Top Project List

The secondary screening resulted in a consolidated project list. A draft top 5 project list for each base was distributed to each MWG representative for validation of scoring and ranking, and, confirm or replace projects. Stakeholders were advised to consider whether a project was in an approved plan before elevating a previously screened out project to the condensed inventory. A validated inventory was brought to the MWG and finalized as the group's **Top Project List**.



# Appendix E

Screening Tool

# Screening Tool

## Project List Screening Tool

### Overview and Components

New funding opportunities and potential partnerships often emerge rapidly; however, competition for limited state and federal funding is fierce. The project screening tool will allow users to quickly identify projects that could be eligible for these emerging opportunities and focus more time on the application process and less on the project identification. The tool will continue to be updated and utilized by the San Diego Regional Military Working Group.

Key variables from the Project Inventory were selected as sorting components. This was useful in the development of the Strategy because projects could be grouped by common features such as:

- **Military Stakeholders** – This search criterion categorizes transportation improvement projects by the relevant military stakeholder. Projects can often be relevant to more than one military installation. The military stakeholders are as follows: Oceanside Recruiting Center, Marine Corps Base Camp Pendleton (Camp Pendleton), U.S. Coast Guard Station (Coast Guard), Marine Corps Recruit Depot San Diego (MCRD), Marine Corps Air Station Miramar (Miramar), Naval Base Coronado (NBC), Naval Base Point Loma (NBPL), Naval Base San Diego (NBSD), Navy Broadway Complex (Broadway), Naval Medical Center, Naval Outlying Landing Field Imperial Beach (NOLF), and Silver Strand Training Complex (SSTC).
- **Project Type** – This search criterion categorizes transportation improvement projects based on the project type. The project types are as follows: Active Transportation, COASTER, Freeways and Highways, Freight Rail, Gate, iCommute, Intermodal Transit Center, Land Use, Local Streets/Roads, Micromobility, Park & Ride, *Rapid*, SPRINTER, Streetcar/Shuttle, Transit, and Trolley.
- **Project Cost** – This search criterion categorizes transportation improvement projects into cost categories such as less than 100k, \$100k-\$1m, \$1m-\$10m, \$10m-\$100m, and more than \$100m.
- **Project Source** – This search criterion categorizes transportation improvement projects based on project source.
- **Relevant Jurisdiction** – This search criterion categorizes transportation improvement projects based on the jurisdiction the project is located within. The relevant jurisdictions are as follows: City of San Diego, Port of San Diego, Oceanside, Vista, San Diego county, Escondido, Chula Vista, National City, Coronado, Imperial Beach, Carlsbad, Encinitas, Solana Beach, Del Mar, La Mesa, Lemon Grove, El Cajon, Santee, and San Marcos.
- **Project Location** – Projects can be sorted by project location using the military stakeholders and/or relevant jurisdiction search criteria.



## User Experience

The image below depicts the user interface of the Screening Tool. Users can select and add different search criteria to find relevant projects that match the selected criteria from the project lists.

Project Filter ×

Find projects based on the predominant military stakeholder, the project type, the project cost, and the project source.  
Please select only one category for each "Search Criteria".

Search Criteria

Military Stakeholder

Project Type

Project Cost

Project Source

Relevant Jurisdiction

- Active Transportation
- Coaster
- Freeways and Highways
- Freight Rail
- Gate
- iCommute
- Intermodal Transit Center
- Land Use
- Local Streets/Roads
- Micromobility
- Park & Ride

Check/Uncheck All



# Appendix F

Costing Methodology

# Costing Methodology

This information summarizes the cost estimating process used in developing planning level cost estimates for the strategy Project Inventory. Projects that are already in-service or significantly in construction (noted in the Federal RTP “No-Build” Table) were removed from the Project Inventory. A list of those projects can be found in **Appendix B**.

## Implementation and Current Year Costing

The Military Multimodal Access Strategy (Strategy) Project Inventory (**Appendix B**) was compiled through review of local planning documents and an extensive outreach process. Base year (2014) planning level costs were developed for new projects or taken from published documents (**Table F-1**). These were then escalated to current year (2019) and Year of Execution (YOE) dollars (**Table F-2 and Table F-3**).

**Table F-1.** Methodology for obtaining base and current year costing

Source	Base Year (2014) Source	Current Year (2019) Source
SANDAG Published Documents <sup>1</sup>	2015 Regional Plan	2019 Federal RTP
Non SANDAG Published Planning Documents <sup>2</sup>	Original source document	See <b>Table F-2</b> and <b>Table F-3</b>
Stakeholder Workshop (New Project) <sup>3</sup>	Planning level costs developed by consultant	See <b>Table F-2</b> and <b>Table F-3</b>
<p>1. The Federal RTP was used for all projects whose descriptions remained consistent from the 2015 Regional Plan. In order to maintain consistency with the inventory that was presented to the San Diego Regional Military Working Group, the 2019 Federal RTP was not used for the handful of projects that experienced description/element changes from the 2015 Regional Plan. These projects were escalated using the “NON SANDAG Projects” methodology into Current Year and YOE dollars and sourced as “2015 Regional Plan.”</p> <p>2. See <b>Appendix C</b> for a comprehensive list of published documents used to compile this inventory</p> <p>3. See <b>Appendix H</b> to review the Strategy’s outreach process</p>		

## Cost Inflation Methodology

The following methodology was developed to stay consistent with SANDAG planning level costing practices.

**Table F-2** and **Table F-3** indicate the escalation rates used to determine Base, Current, and YOE costs. If a previously costed project did not have an associated implementation year from its source, an implementation year of 2050 was assumed. Program and Capital projects were escalated at different rates, but all project escalation rates were generalized to assume an 8-year implementation schedule. Projects that are currently in service were not costed.

**Table F-2. Escalation Rates for Capital Projects**

Escalating to <b>Present Day</b> <sup>1</sup>		
Year	Rate	Note
2011 to 2018	35.55%	2.9% 2011-2014, 32.65% 2014-2018
2014 to 2018	32.65%	
2015 to 2018	17.23%	
2016 to 2018	9.87%	
2017 to 2018	-2.67%	Negative escalation in that CCI index quarter
2018 to 2019	2.54%	
Escalating into <b>Future</b> <sup>2</sup>		
Year	Rate <sup>3</sup>	Note
2019 to 2022	4.35% + 2.54%	
2019 to 2025	14.10%+2.54%	
2019 to 2035	47.26%+ 2.54%	
2019 to 2050	113.58%+ 2.54%	
1. Caltrans Construction Cost Index (CCI) rates by Index Quarter 2. Rate developed based on 2.54% Engineering News-Record (ENR) escalation of an 8-year generalized implementation schedule		

**Table F-3. Escalation Rates for Programs**

Escalating to <b>Present Day</b> <sup>1</sup>		
Year	Rate	Note
2011 to 2018	14.1	2.9% 2011-2014, 11.2% 2014-2018
2014 to 2018	11.2	
2015 to 2018	7.62	
2016 to 2018	5.08	
2017 to 2018	2.54	
2018 to 2019	2.54	
Escalating into <b>Future</b> <sup>2</sup>		
Year	Rate	Note
2019 to 2022	4.35%+ 2.54%	
2019 to 2025	14.10%+2.54%	
2019 to 2035	47.26%+ 2.54%	
2019 to 2050	113.58%+ 2.54%	
1. Rates consistent with 2015 Regional Plan methodology and ENR rates 2. Rate developed based on 2.54% ENR escalation of an 8-year generalized implementation schedule		

## Non-Costed / New Project Costing

For projects whose source did not provide a cost estimate (such as new projects suggested at Stakeholder workshops), the following steps were taken to develop the current cost in 2019 dollars and the YOY cost:

Planning level estimates for non-costed projects were developed using assumed project elements based on the project's description at the time the cost estimating process was performed. When possible, measurements of quantities such as project lengths were utilized. Project lengths were calculated using ArcMap in feet and miles.

Cost data available from previous projects, with necessary adjustments, such as typical costs for project elements (i.e., striping, curb ramps, bulb-outs) were utilized to develop the estimates for non-costed projects. Once the current costs in 2019 dollars were developed, these costs were then escalated to the project's implementation year using the escalation rates in **Table F-2** and **Table F-3**.

The total planning level estimate includes direct construction cost, design contingency and soft cost. Mobility projects, where the scope needs only to provide shuttles / buses with operators, NO mark-ups, design contingency, and soft cost were included.



# Appendix F.2

## Caltrans Construction Cost Index

EXHIBIT A

**Price Index for Selected  
Highway Construction Items  
2007 = 100, Fisher formula**

YEAR	INDEX
1972	11.3
1973	11.4
1974	17.2
1975	17.2
1976	16.5
1977	19.8
1978	22.6
1979	29.3
1980	30.1
1981	34.4
1982	30.9
1983	31.0
1984	36.2
1985	36.0
1986	37.3
1987	39.7
1988	40.5
1989	43.9
1990	44.1
1991	40.4
1992	40.4
1993	42.2
1994	46.2
1995	45.0
1996	45.6
1997	47.6
1998	49.9
1999	52.9
2000	53.5
2001	58.7
2002	53.1
2003	56.6
2004	79.1
2005	98.1
2006	104.1
<b>2007</b>	<b>100.0</b>
2008	95.0
2009	78.4
2010	76.8
2011	84.0

2011

EXHIBIT A

**Price Index for Selected  
Highway Construction Items  
2007 = 100, Fisher formula**

YEAR			Quarterly Index	Last 12 Months' Index
2012	(1st Quarter)	.....	81.1	82.9
2012	(2nd Quarter)	.....	84.6	81.3
2012	(3rd Quarter)	.....	76.4	79.3
<b>2012</b>	<b>(4th Quarter)</b>	.....	<b>82.8</b>	<b>79.2</b>
2013	(1st Quarter)	.....	117.9	80.7
2013	(2nd Quarter)	.....	134.9	82.5
2013	(3rd Quarter)	.....	81.6	85.7
<b>2013</b>	<b>(4th Quarter)</b>	.....	<b>106.2</b>	<b>2014</b> 97.1
2014	(1st Quarter)	.....	135.3	96.88
2014	(2nd Quarter)	.....	109.11	104.56
2014	(3rd Quarter)	.....	110.39	107.37
<b>2014</b>	<b>(4th Quarter)</b>	.....	<b>120.17</b>	<b>2015</b> 108.32
2015	(1st Quarter)	.....	138.22	107.88
2015	(2nd Quarter)	.....	110.93	109.91
2015	(3rd Quarter)	.....	117.91	119.69
<b>2015</b>	<b>(4th Quarter)</b>	.....	<b>128.21</b>	<b>2016</b> 122.02
2016	(1st Quarter)	.....	127.93	124.29
2016	(2nd Quarter)	.....	130.75	128.71
2016	(3rd Quarter)	.....	145.73	138.13
<b>2016</b>	<b>(4th Quarter)</b>	.....	<b>144.73</b>	<b>2017</b> 140.75
2017	(2nd Quarter)	.....	153.06	145.33
2017	(2nd Quarter)	.....	166.59	148.09
2017	(3rd Quarter)	.....	149.96	152
<b>2017</b>	<b>(4th Quarter)</b>	.....	<b>140.87</b>	<b>2018</b> 145.08
2018	(1st Quarter)	.....	152.38	145.10
2018	(2nd Quarter)	.....	170.53	146.60
2018	(3rd Quarter)	.....	191.47	153.52
<b>2018</b>	<b>(4th Quarter)</b>	.....	<b>170.37</b>	<b>163.38</b>
2019	(1st Quarter)	.....	144.19	156.40



# Appendix G

Key Funding Sources

## Typical Grant Objectives

Grant funding programs can be obtained through various departments at a regional, state and federal level. Below is a list of typical grant objectives and respective applicable projects. Use the table below to provide guidance in identifying potential grant opportunities.

**Table G-1** Typical Grant Objectives

Typical Grant Objectives	Description of Objective	Applicable Projects to Consider
<p><b>Sustainability</b></p>	<p>Preserves the livability of California's communities and meets the States GHG emission reduction standards by promoting efficient mobility for people, goods, and services.</p>	<ul style="list-style-type: none"> <li>• Complete Streets Projects</li> <li>• Smart Mobility Projects</li> <li>• Climate Ready Transportation</li> <li>• Environmental Justice and Disadvantaged Community outreach</li> <li>• Planning for housing</li> <li>• Projects implementing modal plans per California Transportation Plan (CTP 2040)               <ul style="list-style-type: none"> <li>- Interregional Transportation Strategic Plan (ITSP)</li> <li>- California Freight Mobility Plan (CFMP)</li> <li>- California State Rail Plan</li> <li>- California State Bicycle and Pedestrian Plan</li> <li>- California High-Speed Rail Business Plan</li> <li>- Statewide Transit Strategic Plan</li> <li>- California Aviation System Plan</li> </ul> </li> </ul>

Typical Grant Objectives	Description of Objective	Applicable Projects to Consider
<b>Safety</b>	Implements safety measures for all modes of transportation. Increases safety / security of the transportation system for motorized and active transportation users.	<ul style="list-style-type: none"> <li>• Roadside Design Improvement at Curves</li> <li>• Reduced Left-Turn Conflict Intersections</li> <li>• Low Cost Countermeasures at Stop-Controlled Intersections</li> <li>• Leading Pedestrian Interval</li> <li>• Local Road Safety Plan</li> <li>• USLIMITS2 (Establish safe speed limits)</li> <li>• Enhanced Delineation and Friction for Horizontal Curves</li> <li>• Longitudinal Rumble Strips and Stripes on Two-Lane Roads</li> <li>• Median Barrier</li> <li>• Safety Edge</li> <li>• Backplates with Retroreflective Borders</li> <li>• Corridor Access Management</li> <li>• Dedicated Left- and Right-Turn Lanes at Intersections</li> <li>• Roundabouts</li> <li>• Yellow Change Intervals</li> <li>• Medians and Pedestrian Crossing Islands in Urban and Suburban Areas</li> <li>• Pedestrian Hybrid Beacon</li> <li>• Road Diet</li> <li>• Walkways</li> <li>• Road Safety Audit</li> </ul>
<b>Mobility</b>	Increases alternative commuting options for people to travel to places of work, education, recreation, and play without being in a single occupancy vehicle (e.g. biking, walking, transit, microtransit, rideshare). Promotes active lifestyles, which contributes to physical and mental well-being	<ul style="list-style-type: none"> <li>• Transit Project or Program</li> <li>• TDM and Share Mobility Project or Program</li> <li>• Active Transportation Project or Program</li> </ul>
<b>Preservation</b>	Protect / enhance the transportation system and the environment by: <ul style="list-style-type: none"> <li>• Improving the quality of life</li> <li>• Promoting consistency between transportation planning improvements and growth and economic patterns</li> </ul>	<ul style="list-style-type: none"> <li>• San Diego Forward identified project</li> <li>• Freight Project</li> <li>• Freeway/Highway Capacity Project</li> <li>• Capital Improvement Projects</li> </ul>

Typical Grant Objectives	Description of Objective	Applicable Projects to Consider
<b>Innovation</b>	Promote the use of technology and innovative designs to improve the performance and social equity of our transportation system and provide sustainable transportation options.	<ul style="list-style-type: none"> <li>• Transit Project or Program</li> <li>• TDM Project or Program</li> <li>• Active Transportation Project or Program</li> <li>• Electric Vehicle Charging</li> <li>• Planning for autonomous vehicles</li> <li>• Smart Cities initiatives</li> <li>• Shared mobility service planning</li> </ul>
<b>Economy</b>	Support the economic vitality of the area (i.e. enables global competitiveness, enables increased productivity, improves efficiency, increases economic equity by enabling robust economic opportunities for individuals with barriers to employment and for Disadvantaged Business Enterprises (DBEs), etc.).	<ul style="list-style-type: none"> <li>• Commute trip reduction project</li> <li>• Park and Ride lots</li> <li>• Strategic planning for transit ridership</li> </ul>
<b>Health</b>	Decrease exposure to local pollution sources, reduce serious injuries and fatalities on the transportation system, and promote physical activity especially through transportation means.	<ul style="list-style-type: none"> <li>• Safe Routes to School Projects</li> <li>• Public Transit Projects</li> <li>• Traffic Calming and safety Enhancement Plans</li> </ul>
<b>Social Equity</b>	Promote transportation solutions that focus on and prioritize the needs of communities most affected by poverty, air pollution and climate change, and promote solutions that integrate community values with transportation safety and performance while encouraging greater than average public involvement in the transportation decision making process.	<ul style="list-style-type: none"> <li>• Long Range Development Plans</li> <li>• Affordable Housing Projects</li> <li>• Transportation modeling studies that address active transportation, emerging technology, public health, VMT and other impacts</li> </ul>



## Potential Funding Sources

This section identifies potential funding sources applicable to prospective projects pursued under the Military Multimodal Access Strategy. Submitted funding applications compete with other agencies and other project types. To provide competitive applications, it is important to discuss project reach beyond military jurisdiction. Coordination with local jurisdictions, transportation agencies, the private sector, and other stakeholders can help potential applicants identify a strong nexus of benefits to the military and surrounding communities.

### Public Sources

**Table G-2** Potential Public Funding Sources

Program Name	Agency	Description	Eligible Projects
<b>Federal Lands Access Program (FLAP)</b>	FLAP, FHWA	Provides funds for projects on federal lands like access transportation facilities that are located on or adjacent to, or that provide access to, federal lands.	<ul style="list-style-type: none"> <li>• Transportation planning, research, engineering, preventive maintenance rehabilitation, restoration, construction, and reconstruction of federal lands access transportation facilities</li> <li>• Operation and maintenance of transit facilities</li> <li>• Any transportation project eligible under title 23 of the United States Code that is within or adjacent to, or that provides access to, federal lands open to the public</li> </ul>
<b>Federal Lands Transportation Program (FLTP)</b>	FHWA	The FLTP funds projects that improve access within the federal estate (national forests, national parks, national wildlife refuges, national recreation areas, and other federal public lands) on transportation facilities in the national federal lands transportation inventory and owned and maintained by the federal government.	<ul style="list-style-type: none"> <li>• Program administration, transportation planning, research, preventive maintenance, engineering, rehabilitation, restoration, construction, and reconstruction of federal lands transportation facilities</li> <li>• Operations and maintenance of transit facilities</li> <li>• Any transportation project eligible under title 23 of the United States Code that is within or adjacent to, or that provides access to, federal lands open to the public</li> </ul>

Program Name	Agency	Description	Eligible Projects
<b>Highway Safety Improvement Program (HSIP)</b>	FHWA	The HSIP is a core federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads, including non-state-owned public roads and roads on tribal lands.	<p>Any project on a public road, trail, or path that is consistent with the state's Strategic Highway Safety Plan and corrects a safety problem is eligible for HSIP funding. Eligible projects include:</p> <ul style="list-style-type: none"> <li>• Intersection improvements</li> <li>• Construction of shoulders</li> <li>• Traffic calming</li> <li>• Improvements for bicyclists, pedestrians, and individuals with disabilities</li> <li>• Minimum standards of retro-reflectivity of traffic signs and pavement markings</li> </ul>

Program Name	Agency	Description	Eligible Projects
<b>National Highway Performance Program (NHPP)</b>	FHWA	<p>The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a state's asset management plan for the NHS</p>	<ul style="list-style-type: none"> <li>• Construction, reconstruction, resurfacing, restoration, rehabilitation, preservation, or operational improvements of NHS roadways and bridges</li> <li>• Bridge and tunnel inspection and evaluation</li> <li>• A project to reduce the risk of failure of critical NHS infrastructure</li> <li>• Construction, reconstruction, resurfacing, restoration, rehabilitation, and preservation of, and operational improvements for a federal aid highway or bridge not on the NHS, if the project is in the same corridor and in proximity to a fully access-controlled NHS route</li> <li>• Construction of a transit project eligible for assistance</li> <li>• Bicycle transportation and pedestrian walkways</li> <li>• Highway safety improvements</li> <li>• Capital and operating costs for traffic and traveler information, monitoring, management, and control facilities and programs</li> <li>• Infrastructure-based Intelligent Transportation Systems (ITS) capital improvements</li> <li>• Environmental restoration and pollution abatement</li> <li>• Control of noxious weeds and establishment of native species</li> <li>• Environmental mitigation related to NHPP projects</li> <li>• Construction of publicly owned intracity or intercity bus terminals</li> </ul>

Program Name	Agency	Description	Eligible Projects
<b>Bus and Bus Facilities Program (Section 5339)</b>	Federal Transit Administration (FTA)/Caltrans Division of Rail and Mass Transportation	The Grants for Buses and Bus Facilities program makes federal resources available to states and direct recipients to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. Eligible recipients include direct recipients that operate fixed route bus service or that allocate funding to fixed route bus operators; state or local governmental entities; and federally- recognized Indian tribes that operate fixed route bus service.	<ul style="list-style-type: none"> <li>Capital projects to replace, rehabilitate, and purchase buses, vans, and related equipment, and to construct bus-related facilities, including technological changes or innovations to modify low or no emission vehicles or facilities.</li> </ul>
<b>Rural Public Transportation Program (Section 5311)</b>	FTA/Caltrans Division of Rail and Mass Transportation	This program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations less than 50,000, where many residents often rely on public transit to reach their destinations. Funds may be used for public transit services operating: within small urban and rural communities, among small urban and rural communities, or between small urban and rural communities and urbanized areas (cities of 50,000 or more).	<ul style="list-style-type: none"> <li>An eligible recipient may use the funding for capital, operating, and administrative expenses for public transportation projects that meet the needs of rural communities. Examples of eligible activities include capital projects; operating costs of equipment and facilities for use in public transportation; and the acquisition of public transportation services, including service agreements with private providers of public transportation services.</li> </ul>

Program Name	Agency	Description	Eligible Projects
<b>Rural Transit Assistance Program (RTAP)</b>	FTA/Cal ACT	The RTAP provides a source of funding to assist in the design and implementation of training and technical assistance projects and other support services tailored to meet the needs of transit operators in nonurbanized areas. Eligible recipients include states, local governments, and providers of rural transit services.	<ul style="list-style-type: none"> <li>• An eligible recipient may use the funding for capital, operating, and administrative expenses for public transportation projects that meet the needs of rural communities. Examples of eligible activities include capital projects; operating costs of equipment and facilities for use in public transportation; and the acquisition of public transportation services, including service agreements with private providers of public transportation services.</li> </ul>
<b>Surface Transportation Block Grant Program</b>	FHWA/Caltrans	The STBGP provides flexible funding that may be used by states and localities for projects to preserve and improve the conditions and performance on any federal aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.	<ul style="list-style-type: none"> <li>• States and metropolitan regions may use these funds for highway, bridge, transit (including intercity bus terminals), and pedestrian and bicycle infrastructure projects.</li> <li>• Eligible projects include: <ul style="list-style-type: none"> <li>○ Construction, reconstruction, rehabilitation, resurfacing, restoration, preservation, or operational improvements for highways, bridges, and tunnels on any public roadway</li> <li>○ Construction of new bridges and tunnels on a federal-aid highway</li> <li>○ Inspection and evaluation of bridges, tunnels, and other highway assets as well as training for bridge and tunnel inspectors</li> <li>○ Transit capital projects</li> <li>○ Bicycle, pedestrian, and recreational trails</li> <li>○ Environmental mitigation efforts</li> </ul> </li> </ul>

Program Name	Agency	Description	Eligible Projects
<b>Transportation Investment Generating Economic Recovery (TIGER) grants</b>	U.S. DOT	The TIGER Discretionary Grant program provides a unique opportunity for the DOT to invest in road, rail, transit, and port projects that promise to achieve national objectives	Eligible applicants for TIGER Discretionary Grants are state, local, and tribal governments, including US territories, transit agencies, port authorities, MPOs, and other political subdivisions of state or local governments. Funding is eligible for: <ul style="list-style-type: none"> <li>• Highway or bridge projects eligible under title 23, United States Code</li> <li>• Public transportation projects eligible under chapter 53 of title 49, United States Code</li> <li>• Freight rail projects</li> <li>• High speed and intercity passenger rail projects</li> <li>• Port infrastructure investments</li> </ul>
<b>Partnerships to Improve Community Health (PICH)</b>	Centers for Disease Control and Prevention (CDC)	PICH is a three-year initiative that supports implementation of evidence-based strategies to improve the health of communities and reduce the prevalence of chronic disease. Awardees will address, in their communities, chronic conditions in tobacco use and exposure, poor nutrition, physical inactivity, and lack of access to opportunities for chronic disease prevention, risk reduction, and disease management.	Eligible transportation-related improvements include projects that improve community designs to make streets safe for pedestrians, bicyclists, and public transit users (e.g., neighborhood slow zones, community-wide traffic calming).

Program Name	Agency	Description	Eligible Projects
<b>Transportation Alternatives Program (TAP)</b>	FHWA	FAST Act replaced the TAP program with a set-aside of fund under the STBGP. The TA set-aside encompasses a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity.	<ul style="list-style-type: none"> <li>• Bicycle and pedestrian facilities</li> <li>• Safe routes projects for non-drivers</li> <li>• Construction of turnouts and overlooks</li> <li>• Community improvement activities including vegetation management and historic preservation</li> <li>• Environmental mitigation activity</li> </ul>
<b>Caltrans Sustainable Transportation Planning Grant Program</b>	Caltrans	New grant funding through Senate Bill 1	<p>Funds transportation planning studies of interregional and statewide significance, in partnership with Caltrans. Sustainable Communities Project Types:</p> <ul style="list-style-type: none"> <li>• Active transportation plans</li> <li>• Studies that advance a community's effort to reduce transportation related greenhouse gases</li> <li>• Complete Streets Plans</li> <li>• First Mile / Last Mile project development planning</li> <li>• Jobs and affordable housing proximity studies</li> <li>• Studies that evaluate accessibility and connectivity of the multimodal transportation network</li> </ul>



Program Name	Agency	Description	Eligible Projects
<b>Urbanized Area Formula Grants – Section 5307</b>	FTA	Federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning	<ul style="list-style-type: none"> <li>• Planning, engineering, design and evaluation of transit projects and other technical transportation-related studies</li> <li>• Capital investments in bus and bus-related activities (e.g., replacement, overhaul and rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities)</li> <li>• Capital investments in new and existing fixed guideway systems (e.g., rolling stock, overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software)</li> <li>• Associated transit improvements and certain expenses associated with mobility management programs are eligible under the program</li> </ul>

Program Name	Agency	Description	Eligible Projects
<p><b>Port Infrastructure Development Program</b></p>	<p>Department of Transportation</p>	<p>The Consolidated Appropriations Act, 2019 (“FY 2019 Appropriations Act”), appropriated \$292,730,000 for the Port Infrastructure Development Program to make grants to improve port facilities at coastal seaports. The Act directed that \$92,730,000 of the appropriated funds shall be for grants to the 15 coastal seaports that handled the greatest number of loaded foreign and domestic twenty-foot equivalent units of containerized cargo in 2016, as identified by the U.S. Army Corps of Engineers. Funds for the Port Infrastructure Development Program are to be awarded as discretionary grants on a competitive basis for projects that will improve the safety, efficiency, or reliability of the movement of goods into, out of, around, or within a coastal seaport, as well as the unloading and loading of cargo at a coastal seaport. All Port Infrastructure Development Program funding grant recipients must meet all applicable Federal requirements, including the Buy American Act.</p>	<p>For the purposes of these grants, a “coastal seaport” is a seaport capable of receiving deep-draft vessels (drafting greater or equal to 20 feet) from a foreign or domestic port.</p> <p>Department seeks projects that will: (1) advance technology-supported safety and design efficiency improvements; (2) bring facilities to a state of good repair and improve resiliency; (3) promote efficient trade in energy resources; (4) promote exports of manufacturing, agriculture, or other goods; and (5) for only the top 15 coastal ports, support the safe flow of agricultural and food products, free of pests and disease, domestically and internationally. Accordingly, the Department expects to award at least one project that advances each of the aforementioned project outcomes, but a project does not need to address one or more of these outcomes to be awarded.</p>

Program Name	Agency	Description	Eligible Projects
<b>Capital Investment Grants – Section 5309</b>	FTA	Funds transit capital investments, including heavy rail, commuter rail, light rail, streetcars and bus rapid transit	<ul style="list-style-type: none"> <li>• Bus and Bus-related Facilities               <ul style="list-style-type: none"> <li>○ Buses and other rolling stock, ferry boats, ancillary equipment, and the construction of bus facilities (e.g., maintenance facilities, garages, storage areas, waiting facilities and terminals, transit malls and centers, and transfer facilities and intermodal facilities)</li> <li>○ Bus rehabilitation and leasing, Park &amp; Ride facilities, parking lots associated with transit facilities, bus passenger shelters, and intercity bus stations and terminals</li> </ul> </li> <li>• Modernization of Fixed Guideway Systems               <ul style="list-style-type: none"> <li>○ Infrastructure improvements such as track and right-of-way rehabilitation, modernization of stations and maintenance facilities, rolling stock purchase and rehabilitation, and signal and power modernization</li> </ul> </li> <li>• New Fixed Guideway Capital Projects (New Starts and Small Starts)               <ul style="list-style-type: none"> <li>○ Preliminary engineering (PE), acquisition of real property (including relocation costs), final design and construction, and initial acquisition of rolling stock for the system</li> </ul> </li> <li>• Corridor bus projects that either operate in a separate right-of-way during peak hours or contain significant investment in corridor-based bus improvements               <ul style="list-style-type: none"> <li>○ Corridors to Support New Fixed Guideway Projects</li> <li>○ Protecting rights-of-way through acquisition</li> <li>○ Construction of dedicated bus and high occupancy vehicle (HOV) lanes</li> <li>○ Park &amp; Ride lot</li> </ul> </li> </ul>

Program Name	Agency	Description	Eligible Projects
			<ul style="list-style-type: none"> <li>○ “Nonvehicular” capital improvements that will increase transit use in the corridor (e.g., additional safety features that would encourage riders to use transit, walkways and pathways that make transit more readily available, bus shelters, and joint development projects that would improve the livability of a community and increase the benefits transit offers)</li> </ul>
<b>Community Development Block Grants</b>	HUD	Flexible program that provides communities with resources to address a wide range of unique community development needs	Urban redevelopment, but Park & Ride lot projects in urban redevelopment areas will be considered

Program Name	Agency	Description	Eligible Projects
<b>State Transportation Improvement Program (STIP)</b>	CTC	<p>STIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the Transportation Investment Fund and other funding sources. STIP programming generally occurs every two years.</p>	<ul style="list-style-type: none"> <li>• Interregional Improvement Program               <ul style="list-style-type: none"> <li>○ State highway, intercity passenger rail, mass transit guideway, or grade separation projects. Non-capital costs for transportation system management or transportation demand management may be included where Caltrans finds the project to be a cost-effective substitute for capital expenditures</li> <li>○ Intercity rail projects (including interregional commuter rail and grade separation projects) and to improvements outside urbanized areas on interregional road system routes</li> </ul> </li> <li>• Regional Improvement Program               <ul style="list-style-type: none"> <li>○ Capital projects (including project development costs) needed to improve transportation in the region</li> <li>○ Improving State highways, local roads, public transit (including buses), intercity rail, pedestrian and bicycle facilities, grade separations, transportation system management, transportation demand management, sound walls, intermodal facilities, and safety</li> <li>○ Non-capital costs for transportation system management or transportation demand management may be included where the regional agency finds the project to be a cost-effective substitute for capital expenditures. Other non-capital projects (e.g. road and transit maintenance) are not eligible</li> </ul> </li> </ul>

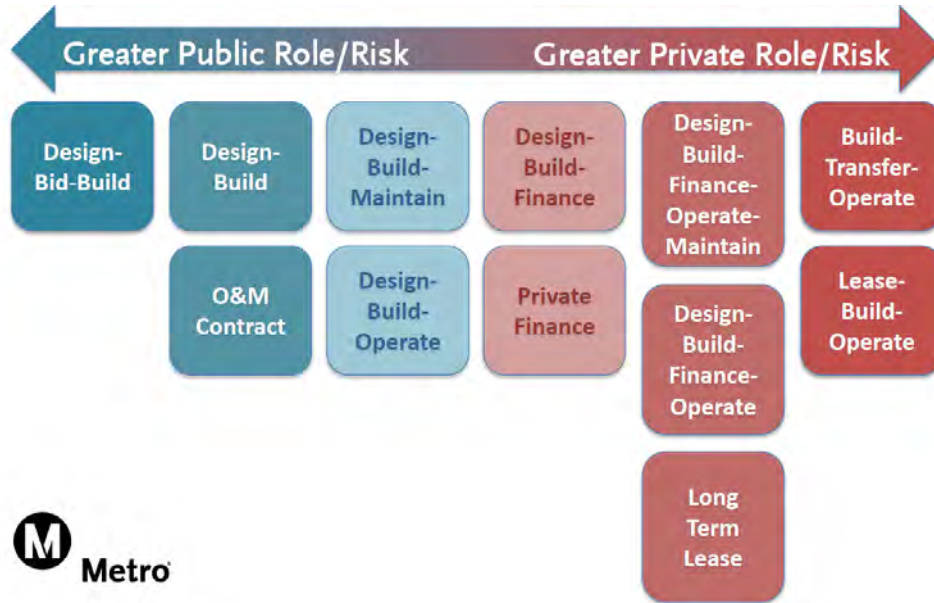
Program Name	Agency	Description	Eligible Projects
<b>Defense Community Infrastructure Program</b>	Department of Defense	The program would provide critical funding for off-base community infrastructure projects that support mission readiness and resilience, including transportation, schools, hospitals, police, fire, emergency response, water, wastewater, telecommunications, electric, gas, or other utility infrastructure that is owned by a state or local government.	<ul style="list-style-type: none"> <li>• Waiting for approval by both chambers.</li> </ul>

### Public-Private Partnerships (P3)

In addition to pursuing funding from public sources, the private sector is an increasingly willing partner on transportation improvement projects. Public stakeholders can engage the private sector on one or more components of project delivery including planning, design, construction, finance, operations, and maintenance. The benefits and challenges of P3s for public stakeholders include:

Benefits	Challenges
<ul style="list-style-type: none"> <li>• Reduced financial risk</li> <li>• Condensed project delivery timelines</li> <li>• Quality assurances</li> <li>• Lower ongoing costs</li> <li>• Innovation</li> <li>• Greater access to financial resources</li> </ul>	<ul style="list-style-type: none"> <li>• Complex contracting</li> <li>• Matching expertise with project scope</li> <li>• Management and oversight</li> <li>• Partner financial stability</li> </ul>

Figure G-1 - Different P3 Models (LA METRO)







# Appendix H

Outreach Summary

# Outreach Summary

The project team conducted public outreach throughout the project schedule to inform the development of deliverables and the direction of the strategy.

## Stakeholders

### Project Development Team

A project development team (PDT) was formed to lead the project. The PDT includes representatives from SANDAG, San Diego Regional Military Working Group, Caltrans, and the consultant team. The purpose of the PDT was to provide a regular point of contact with primary stakeholders to guide the development of the following deliverables:

- Briefing Book – documents existing conditions and challenges surrounding military installations
- Project Inventory Tool – documents and sort projects of importance to the MWG
- Final Strategy Report – documents project process, methodologies, and strategies moving forward

The PDT generally met bimonthly and played a key role in the review of all project deliverables.

### San Diego Regional Military Working Group

The San Diego Regional Military Working Group (MWG) includes representatives from all military branches with installations in the San Diego region, local jurisdictions adjacent to military installations, as well as SANDAG staff and the Port of San Diego (**Table H-1**). The MWG, which regularly convened every two months, was consulted for feedback on project deliverables and policy level decision making.

**Table H-1**

<b>Military Working Group Members</b>
Marine Corps Installation West
Navy Region Southwest
Navy Facilities Engineering Command
Marine Corps Recruitment Depot
U.S. Coast Guard San Diego Sector
City of Oceanside
City of San Diego
City of Coronado
City of National City
City of Imperial Beach
County of San Diego
Metropolitan Transportation System (MTS)
North County Transit District (NCTD)
Port of San Diego
SANDAG

As part of the initial phase of the project, SANDAG staff and the consultant team met and interviewed representatives of the MWG in addition to the region’s transit agencies and Caltrans District 11 staff to understand existing challenges to accessing military installations.

## Outreach Process

### Stakeholder Interviews

Stakeholder interviews were held with Working Group members and other agencies who may impact military mobility. The interviews provided the PDT with reliable first hand information about the existing conditions and challenges impacting mobility to and from military installations in San Diego County. Each stakeholder contacted was provided a list of standardized questions about military mobility as a baseline for information gathering. Stakeholders were encouraged to identify additional resources which could support the development of the Project List (see **Appendix B**) and Briefing Book (**Appendix A**).

**Table H-2**

Organizations Contacted for Stakeholder Interviews	
Organization	Received Response
Marine Corps Base Camp Pendleton	Y
Marine Corps Recruit Depot	Y
Marine Corps Miramar Air Station	N
Naval Base Point Loma	N
Naval Base San Diego	Y
Naval Base Coronado	Y
US Coast Guard	Y
City of Coronado	Y
City of Imperial Beach	Y
City of National City	Y
City of Oceanside	Y
City of San Diego	Y
County of San Diego	Y
Port of San Diego	Y
Airport	N
Caltrans	Y
MTS	Y
NCTD	Y

Below is the list of questions provided to the stakeholder to help spur conversation during the interview:

- How do you see military traffic influencing the San Diego region?
- What is your priority for the transportation network?
- What are the challenges you face to improve transportation conditions?
- The following documents are being reviewed as part of this data gathering to identify current planned projects and policies:
  - Are there any other documents we should be looking at?
- Are there any old projects, strategies, or ideas that have been tested, identified, or thought of in the past but did not work as intended or did not materialize as anticipated?
- Are there any new projects, strategies, or ideas that you must address transportation issues?
- Are there regional transportation-related programs you have identified that you specifically support or do not support?
- Are there specific areas, either physical infrastructure programs or behavioral patterns, that you would like to note as part of this data gathering?
- Is there anyone else you think we should be talking to?

### Fall 2018 Workshop

On behalf of SANDAG and the MWG, a workshop was held on December 3, 2018 to discuss potential transportation projects that can improve travel options to military bases in the San Diego region. The workshop included more than 75 participants representing the region's military installations, adjacent local governments, transportation agencies, SANDAG staff, non-profits, and the general public.



Participants of the workshop were broken into five tables which each focused on one or multiple military installations in the San Diego region. **Table H-3** shows how the military installations were grouped for discussion.

**Table H-3.** Military Installation Groupings at Fall 2018 Workshop

Table	Military Installations Discussed
Table #1	Marine Corps Base Camp Pendleton
Table #2	Marine Corps Air Station Miramar
Table #3	Naval Base San Diego
Table #4	Naval Base Coronado
Table #5	Naval Base Point Loma, Marine Corps Recruit Depot, and US Coast Guard

At each group, participants were provided the following materials catered towards the military installations the group focused on:

- Project matrix of existing planned projects
- Map of the existing planned projects
- Mobility report cards describing the existing conditions of various travel modes
- Summary of existing challenges

Each group performed a mapping exercise for their respective military installation grouping. Using the above material, participants at each table discussed the list of existing planned projects to see if there were any missing on the list and if there were any that should not be considered as a priority for the MWG. Participant comments and feedback were documented to aid the development of the final list of projects for the MWG to consider. After the mapping exercise, representatives from each group presented the top key findings that their group had.

Based on the workshop discussion, several key themes and highlights were documented including the following:

- Develop mobility options that help military personnel not only get to a military base but help move them once inside
- Look at first and last mile solutions that help get military personnel from key transit centers surrounding military bases
- Look at opportunities to reconfigure the space on roadways adjacent to military bases to help meet demand
- Find innovative ways to identify potential revenue for high priority projects

The feedback provided by participants allowed the project team to assemble and prioritize the MWG's list of transportation projects and programs.

## Meetings Summary

**Table H-4.** *Project Meetings*

Meeting Date	Time and Location	Topics Discussed
6/19/2017	9 to 10:30 a.m. SANDAG – Conf. Rm. 7	Meeting to inform the MWG that Caltrans awarded SANDAG a grant to develop the Strategy and to discuss next steps in bringing a consultant onboard.
9/18/2017	9 to 10:30 a.m. SANDAG – Conf. Rm. 7	Meeting with the MWG to discuss key issues for various installations and jurisdictions for consideration during the project.
12/11/2017	9 to 10:30 a.m. SANDAG – Conf. Rm. 7	Meeting with the MWG to introduce the consultants (Kimley Horn & Associates).
12/04/2017	3:30 to 5 p.m. SANDAG – Conf. Rm. 10B	Meeting to discuss project overview, roles and responsibilities and draft a schedule.
1/23/2018	4 to 5 p.m. SANDAG – Conf. Rm. 8B	Project updates regarding interviews with military and jurisdictional POCs. Discussing schedule of future meetings.
2/26/2018	2:30 to 4 p.m. SANDAG -Conf. Rm. 8B	Primarily provided feedback on the RTP Draft document. Meeting identified the need for document to take a regional and local perspective. Methodology and criteria were also discussed to determine project accessibility and multimodal perspectives.
3/5/2018 - MWG	9 to 10:30 a.m. SANDAG – Conf. Rm. 7	Update on stakeholder interviews and discussion on potential San Diego Forward: The Regional Plan projects that impact military installations.
4/30/2018	1 to 2:30 p.m. SANDAG – Conf. Rm. 8B	This meeting focused on stakeholder feedback from interviews, how RTP Projects could discuss the feedback, and discussing the Data Briefing Book which captures existing setting of the region.
6/18/2018	10 to 11:30 a.m. SANDAG – Conf. Rm. 8A	Discussed the approach and structure of the Existing Conditions Report. Established objectives and agenda for the workshop as well as project list and methodology for prioritizing projects.

Meeting Date	Time and Location	Topics Discussed
6/25/2018	9 to 11 a.m. SANDAG – Conf. Rm. 7	Informed the MWG of key steps in developing the Strategy and to provide input on specific activities.
9/10/2018	9 to 11 a.m. SANDAG – Conf. Rm. 8B	Discussed feedback from Existing Conditions Report. Sorting tool for Project List Development was demonstrated. Draft list of Criteria was also presented.
10/15/2018	9 to 10:30 a.m. SANDAG – Conf. Rm. 7	Project update, request for MWG to review Briefing Book, and discussion on project evaluation criteria.
12/3/2018	9 to 10:30 a.m. Admiral Baker Club	Workshop to discuss current challenges, highlight projects of interest, and identify projects that should be considered for the final project inventory.
2/11/2019	9 to 10:30 a.m. SANDAG – Conf. Rm. 7	Summary of workshop discussions and request for MWG feedback on approach for prioritizing projects and developing cost estimates.
3/4/2019	10 a.m. to 12 p.m. SANDAG – Conf. Rm. 8A	Project update and discussion of feedback to date. Determined schedule for Military Working Group Meeting and Borders Committee Update.
3/25/2019	9 to 10:30 a.m. SANDAG – Conf. Rm. 7	Discussion with the MWG on the mission, vision, and values that inform the Strategy and the methodology to identify projects for each geographic focus.
5/2/2019	1 to 3 p.m. SANDAG – Conf. Rm. 8B	General project updates and project recap focused on Criteria Methodology for Prioritization.
5/13/2019	9 to 11 a.m. SANDAG – Conf. Rm. 7	Workshop with the MWG to review ten projects and select the top five for each installation.
6/10/2019	9 to 11 a.m. SANDAG – Conf. Rm. 7	Workshop with the MWG to discuss a strategic framework and strategic actions for championing projects in the Strategy.



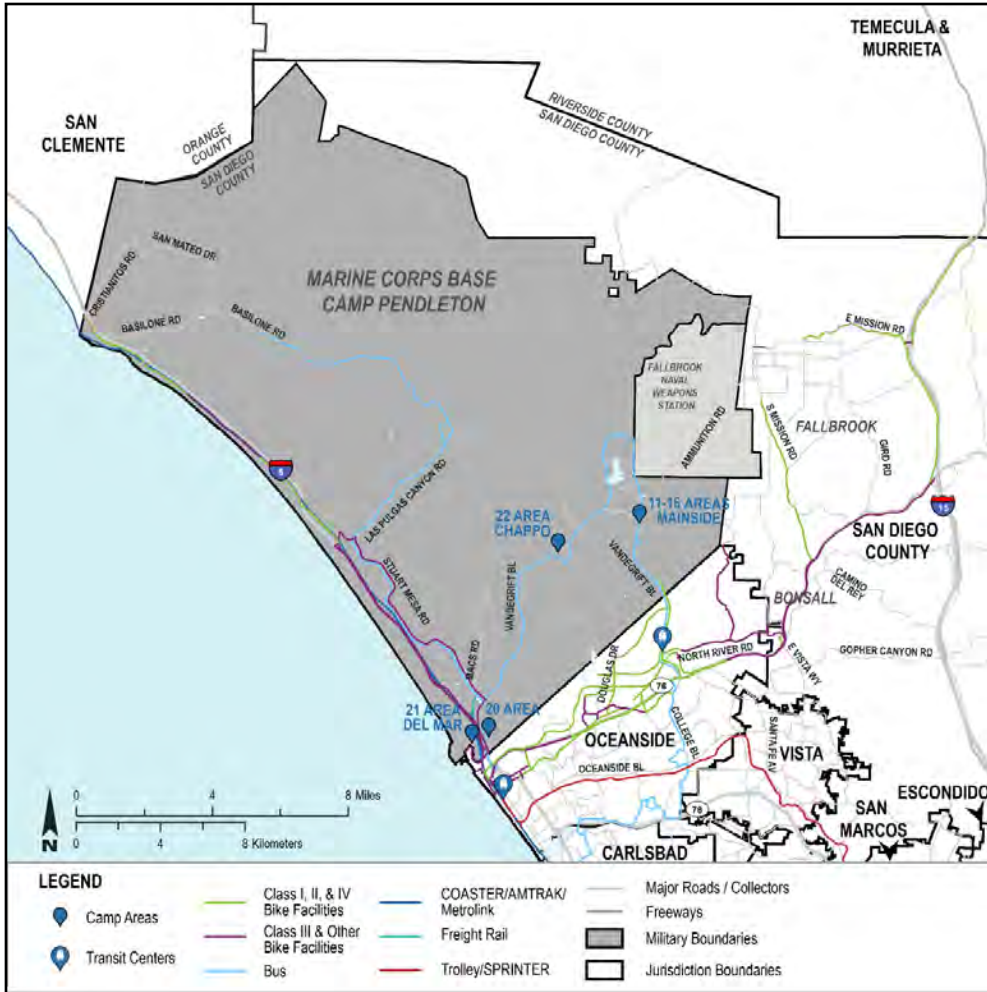


# Appendix I

Military Installation One-Page Profiles

# Marine Corps Base Camp Pendleton

Marine Corps Base Camp Pendleton (Camp Pendleton) is located in North San Diego County, neighbored by the City of Oceanside to the South, the community of Fallbrook to the east, and Orange County to the north. Camp Pendleton experiences an average daytime population of 70,000 employees, military family members, and visitors. There are two north-south corridors, the Interstate 5 and 15, and one major east-west facility, State Route 76, that provide access to Camp Pendleton via driving, carpooling, and vanpooling. The installation is located two miles north of the Oceanside Transit Center (OTC) where commuters can utilize the Amtrak, Metrolink, NCTD COASTER, and NCTD SPRINTER.



Camp Pendleton – Existing Connectivity

## Commuting Patterns

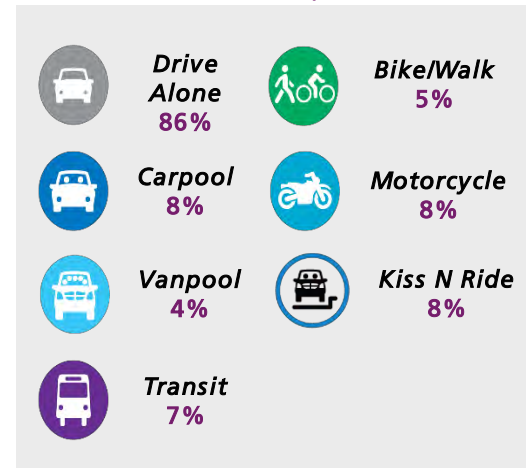
- More than 38,000 personnel and families housed on base
- Most individuals living on base use cars to get to their desired destinations on and off base
- Average of 2 vehicles per military family living on base
- Over 60% of people living in barracks use personal vehicles
- Primary commute mode for personnel living off base is driving alone
- Only one-quarter of base residents have used transit services

## Commute Origin of Camp Pendleton

Commute Origin	Percent of Commuters
North San Diego County	60%
Riverside County	24%
City of San Diego	7%
Orange County	4%
Other	5%
<b>Total Responses</b>	<b>324</b>

Source: NCTD Survey, March 2012

## Commute Mode to Camp Pendleton



Source: NCTD Survey, March 2012

## Top Challenges for Camp Pendleton

### Traffic and Regional Connectivity











- SR 76 experiences heavy traffic causing delays for commuters
- Cut-through traffic on the local roadway network in Capistrano neighborhood near Main Gate; San Rafael Road is used to bypass the queue between I-5 and Main Gate

### Mobility

- Camp Pendleton is geographically large, contains steep slopes, and has camp areas spread out throughout the base, which constrains access options
- Shuttle system for internal trips difficult to justify as internal trips are often about moving goods, not people

Additional challenges can be found in the [Briefing Book \(Appendix A\)](#)

## Mobility Report Card Marine Corps Camp Pendleton

Mobility Options	Supportive Programs/Infrastructure	
	On Base	City of Oceanside
 <b>Walking/ Biking</b>	<ul style="list-style-type: none"> <li>• Walkable within camp areas; not between camp areas</li> <li>• No existing bike network connecting camp areas</li> <li>• Steep terrain</li> </ul>	<ul style="list-style-type: none"> <li>• Substantial sidewalks and low speed limits in Downtown Class II bike lanes on Vandegrift Blvd. (50 mph) to access San Luis Rey Gate</li> <li>• Mix of Class I, II, and III bike facilities on Old Pacific Hwy</li> <li>• Class III bike facilities on Las Pulgas Rd. &amp; Stuart Mesa Rd.</li> </ul>
 <b>Public Transit</b>	<ul style="list-style-type: none"> <li>• NCTD BREEZE Route 315</li> <li>• No passenger rail access on base</li> </ul>	<ul style="list-style-type: none"> <li>• NCTD BREEZE Route 315</li> <li>• Amtrak, Metrolink, COASTER, and SPRINTER services at Oceanside Transit Center</li> </ul>
 <b>Microtransit</b>	<ul style="list-style-type: none"> <li>• NCTD FLEX Routes 392 and 395</li> <li>• Internal shuttle mostly used for goods movement</li> </ul>	<ul style="list-style-type: none"> <li>• NCTD FLEX Routes 392 and 395</li> </ul>
 <b>Carpool &amp; Vanpool</b>	<ul style="list-style-type: none"> <li>• Vanpool subsidy with TIPS</li> <li>• SANDAG iCommute Vanpool Program</li> <li>• No designated parking spaces for carpool or vanpool</li> </ul>	<ul style="list-style-type: none"> <li>• No existing High Occupancy Vehicle lanes on I-5 North from SR-52 to Oceanside or on SR-78</li> </ul>
 <b>Carshare</b>	<ul style="list-style-type: none"> <li>• Limited government fleet</li> </ul>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>
 <b>On-Demand Rideshare</b>	<ul style="list-style-type: none"> <li>• Waze Carpool</li> <li>• Lyft with Security Clearance</li> </ul>	<ul style="list-style-type: none"> <li>• Waze Carpool</li> <li>• Uber, Lyft</li> </ul>
 <b>Bikeshare</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• No current programs</li> <li>• Bikeshare not permitted on NCTD buses</li> </ul>
 <b>Electric Bike &amp; Scootershare</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>
 <b>Neighborhood Electric Vehicle (NEV)</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>
 <b>Other</b>	<ul style="list-style-type: none"> <li>• High supply of parking on base</li> </ul>	<ul style="list-style-type: none"> <li>• Limited street parking close to base</li> <li>• Bluetooth Travel-time Origin and Destination (BlueTOAD) technology along Pacific Coast Hwy</li> <li>• Smart Growth Opportunity Area: Downtown Oceanside</li> </ul>

Data current as of December 2018

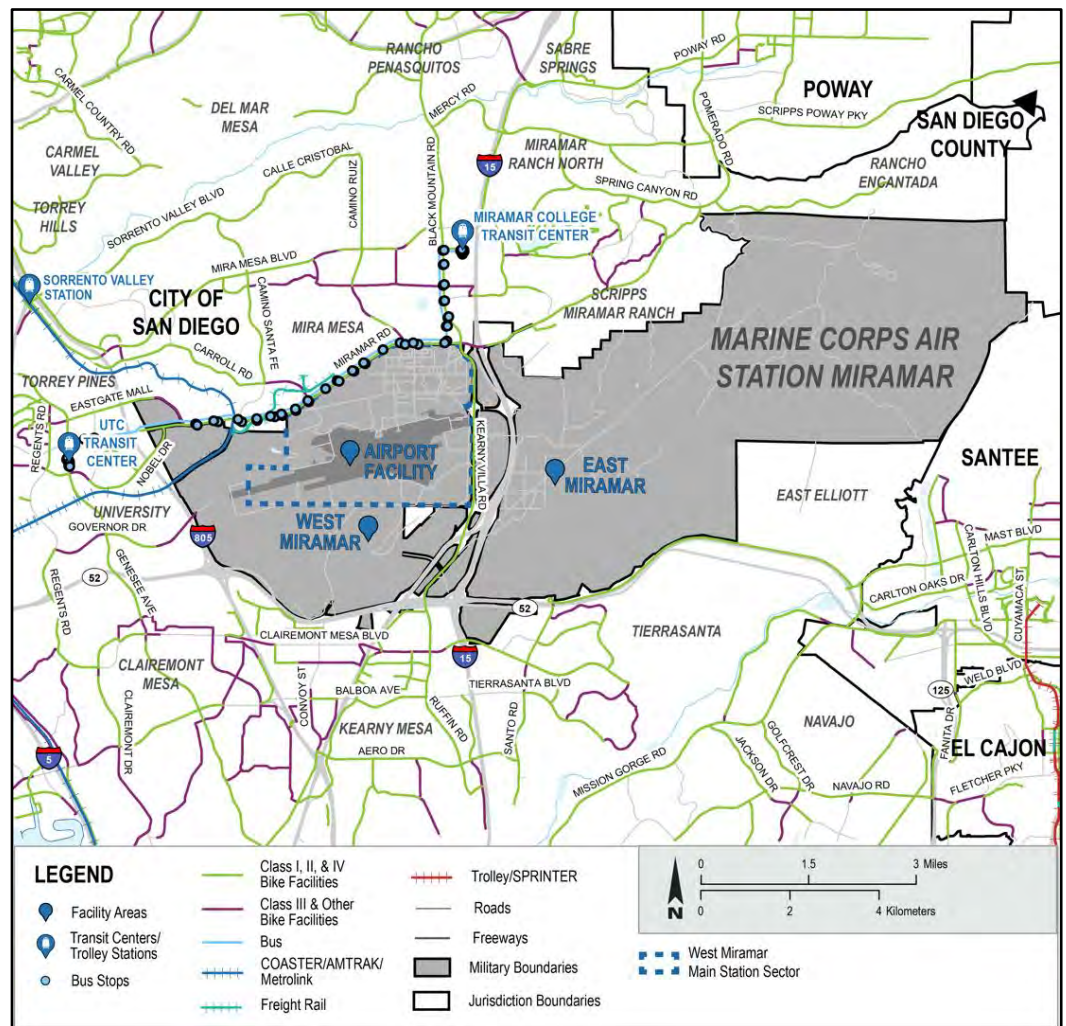
The detailed installation profile can be found in the [Briefing Book \(Appendix A\)](#).

# Marine Corps Air Station Miramar

Marine Corps Air Station Miramar (Miramar) is located in northeast San Diego and is surrounded by several communities and local jurisdictions. Mira Mesa immediately north of the base, University City to the west, Kearny Mesa to the south, Scripps Ranch to the north, City of Santee to the east, and Tierrasanta to the south. Miramar is the workplace for over 12,000 military personnel. There are three major north-south corridors, the Interstate 15 and 805, State Route 163 and one major east-west corridor, State Route 52 that provide access to Miramar via driving, carpooling, and vanpooling. The Interstate 15, Kearny Villa Road, and Miramar Road serve as the major corridors to and from the base. The installation is located two miles south of the Sorrento Valley Station where commuters can utilize the Amtrak or COASTER.

## Commuting Patterns

- More than 3,500 service members living in on-base housing and barracks
- Most military personnel seek housing in Riverside and San Diego County
- The majority of people living on base use their personal vehicles to complete trips within the base
- Approximately 7,500 service members, civilian employees, and government contractors commute to the base daily
- Miramar personnel are registered in 25 vanpools, primarily from Riverside County and the City of Chula Vista
- There are roughly 110 passenger non-tactical vehicles (NTVs) on Miramar that military personnel can access
- Limited transportation options on base other than personally owned vehicles



Marine Corps Air Station Miramar – Existing Connectivity

## Top Challenges for Miramar

### Traffic and Regional Connectivity

- Congestion on nearby roadways and interstates during peak hours delays commuters travelling to and from base
- Most off-base housing is not within a reasonable (one-mile) walking distance











### Other

- Military personnel often transport heavy equipment which limits the types of vehicles that are usable
- Transportation Network Companies (TNCs) can drop off riders on base but cannot pick up new passengers on base. TNC apps do not recognize or accept requests from passengers within the base due to security clearance requirements

Additional challenges can be found in the [Briefing Book \(Appendix A\)](#)



## Mobility Report Card Marine Corps Air Station Miramar

Mobility Options	Supportive Programs/Infrastructure	
	On Base	City of San Diego
 <b>Walking/ Biking</b>	<ul style="list-style-type: none"> <li>• Walkable within Main Station Sector on West Miramar; not between sectors or between East and West Miramar</li> <li>• Moderate to steep terrain</li> </ul>	<ul style="list-style-type: none"> <li>• Mix of Class II bike lanes and Class III bike route (sharrows) on Miramar Road (50mph), Pomerado Road (45mph), and Kearny Villa Road (65mph)</li> </ul>
 <b>Public Transit</b>	<ul style="list-style-type: none"> <li>• No transit services on base</li> <li>• No passenger rail access on base</li> </ul>	<ul style="list-style-type: none"> <li>• MTS Route 31</li> <li>• Multiple MTS routes serve transit centers near the base (UTC and Miramar College)</li> </ul>
 <b>Microtransit</b>	<ul style="list-style-type: none"> <li>• No current services</li> </ul>	<ul style="list-style-type: none"> <li>• No current services</li> </ul>
 <b>Carpool &amp; Vanpool</b>	<ul style="list-style-type: none"> <li>• Vanpool subsidy with TIPS</li> <li>• SANDAG iCommute Vanpool Program</li> <li>• Greencommuter Pilot</li> </ul>	<ul style="list-style-type: none"> <li>• High Occupancy Vehicle lanes on I-15</li> </ul>
 <b>Carshare</b>	<ul style="list-style-type: none"> <li>• Over 100 non-tactical government fleet vehicles</li> <li>• Greencommuter Pilot</li> </ul>	<ul style="list-style-type: none"> <li>• Zipcar</li> </ul>
 <b>On-Demand Rideshare</b>	<ul style="list-style-type: none"> <li>• Waze Carpool</li> <li>• Restricted Uber, Lyft access</li> </ul>	<ul style="list-style-type: none"> <li>• Waze Carpool</li> <li>• Uber, Lyft</li> </ul>
 <b>Bikeshare</b>	<ul style="list-style-type: none"> <li>• Lime pilot</li> </ul>	<ul style="list-style-type: none"> <li>• Lime, Discover Bike</li> </ul>
 <b>Electric Bike &amp; Scootershare</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• Electric bike: Lime, JUMP</li> <li>• Electric scooter: Lime, Bird, Razor, Wheels, Wind</li> </ul>
 <b>Neighborhood Electric Vehicle (NEV)</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>
 <b>Other</b>	<ul style="list-style-type: none"> <li>• High supply of parking on base</li> </ul>	<ul style="list-style-type: none"> <li>• Limited street parking close to base</li> <li>• Smart Growth Opportunity Areas: University City and Mira Mesa</li> </ul>

Data current as of December 2018

The detailed installation profile can be found in the [Briefing Book \(Appendix A\)](#).

# Marine Corps Recruit Depot

Marine Corps Recruit Depot (MCRD) is located in the City of San Diego in between Interstate 5 and the San Diego Bay and adjacent to the San Diego International Airport. One major north-south corridor, the Interstate 5, and one major east-west facility, the Interstate 8, connect to major roads that provide access to MCRD via driving, carpooling, and vanpooling. The facility is located less than two miles south of the Old Town Transit Center where commuters can utilize the Amtrak, COASTER, MTS Green Line Trolley, and several MTS bus routes. The Green Line Trolley also stops at the Washington Street Trolley Station, less than a mile away from MCRD.

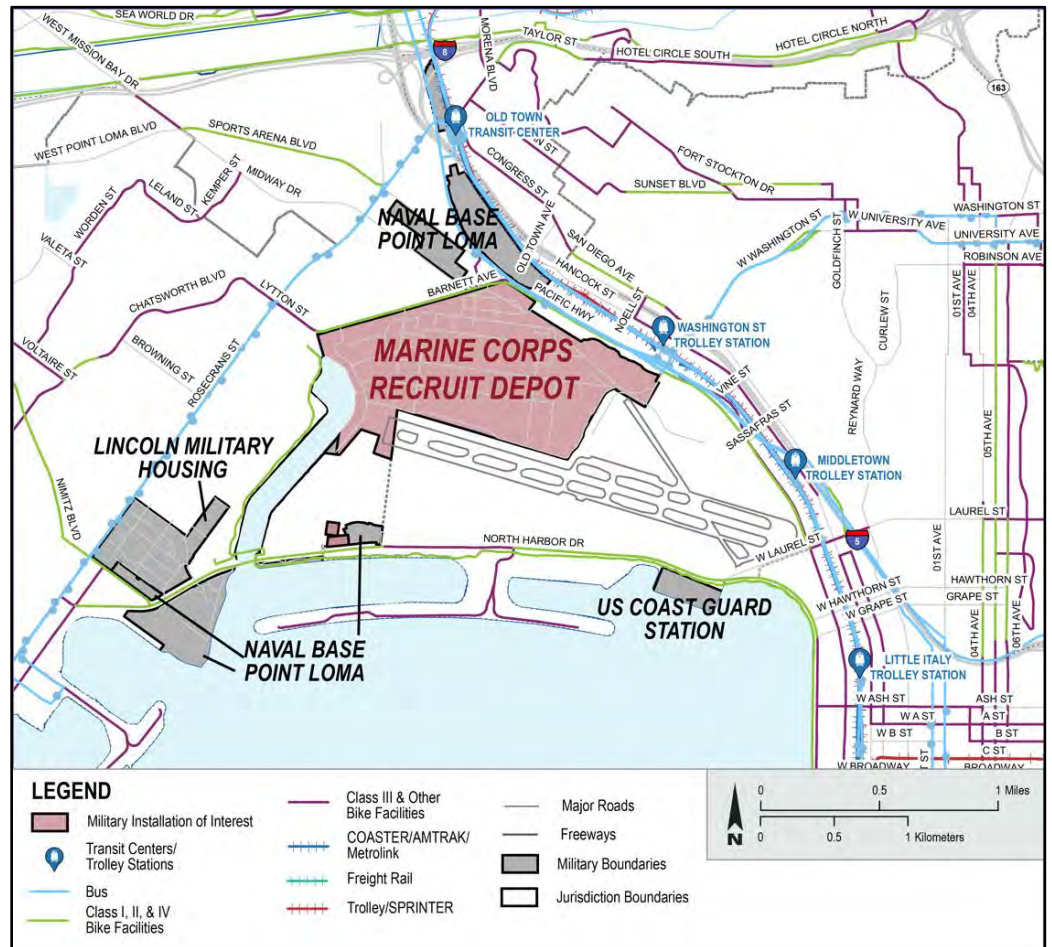
## Commute Origin of Marine Corps Recruit Depot

Commute Origin	Percent of Commuters
City of San Diego	30%
North San Diego County	17%
Riverside County	11%
Other*	10%
South San Diego County	10%
East San Diego County	10%
Orange County	5%
Los Angeles County	3%
San Bernardino County	3%
<b>Total Responses</b>	<b>142</b>

Source: MCRD provided zip code report data, March 2018.

## Commuting Patterns

- Military personnel commute from a community within the county, primarily the City of San Diego
- MCRD utilizes Transportation Demand Strategies to promote alternative commutes for personnel



Marine Corps Recruit Depot – Existing Connectivity

## Top Challenges for Marine Corps Recruit Depot

### Traffic and Regional Connectivity

- Community concerns about traffic resulting from proposed projects (additional rail line at-grade across Washington Street, the Airport Intermodal Transit Center, and the San Diego City Community Plan for the I-5/Pacific Highway)

### Mobility











- Despite close proximity to MTS trolley and bus stops, inconsistent or unfriendly bicycle and pedestrian network connections limit first mile/last miles access to MCRD

### Other

- Congestion between Washington Street Gate and I-5 causing delay for commuters

Additional challenges can be found in the [Briefing Book \(Appendix A\)](#)

## Mobility Report Card Marine Corps Recruit Depot

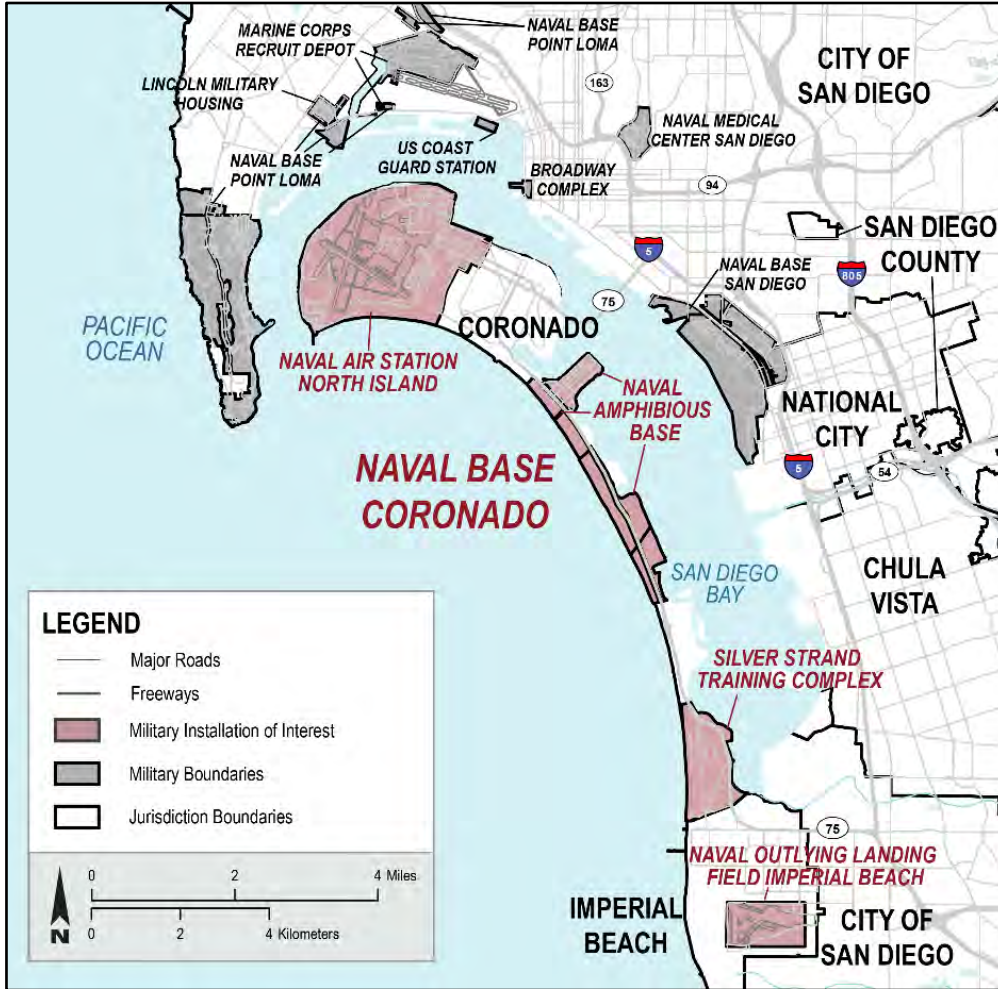
Mobility Options	Supportive Programs/Infrastructure	
	On Base	City of San Diego
 <b>Walking/ Biking</b>	<ul style="list-style-type: none"> <li>• Walkable</li> </ul>	<ul style="list-style-type: none"> <li>• Intermittent Class II bike lanes along Barnett Ave. (40 mph), disappears at Gate 2</li> <li>• Class III bike route along Pacific Highway</li> </ul>
 <b>Public Transit</b>	<ul style="list-style-type: none"> <li>• No public transportation on base</li> </ul>	<ul style="list-style-type: none"> <li>• MTS Route 10, 30, and 150</li> <li>• Green Line Trolley station (Washington Street) less than one mile from MCRD</li> <li>• Multiple transit services at Old Town Transit Center</li> </ul>
 <b>Microtransit</b>	<ul style="list-style-type: none"> <li>• No current services</li> </ul>	<ul style="list-style-type: none"> <li>• No current services</li> </ul>
 <b>Carpool &amp; Vanpool</b>	<ul style="list-style-type: none"> <li>• Vanpool subsidy with TIPS</li> <li>• SANDAG iCommute Vanpool Program</li> <li>• No designated parking spaces for carpool or vanpool</li> </ul>	<ul style="list-style-type: none"> <li>• No existing High Occupancy Vehicle lanes on I-5 and I-8</li> </ul>
 <b>Carshare</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• Zipcar</li> </ul>
 <b>On-Demand Rideshare</b>	<ul style="list-style-type: none"> <li>• Waze Carpool</li> </ul>	<ul style="list-style-type: none"> <li>• Waze Carpool</li> <li>• Uber, Lyft</li> </ul>
 <b>Bikeshare</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• Lime, Discover Bike</li> </ul>
 <b>Electric Bike &amp; Scootershare</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• Electric bike: Lime, JUMP</li> <li>• Electric scooter: Lime, Bird, Razor, Wheels, Wind</li> </ul>
 <b>Neighborhood Electric Vehicle (NEV)</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>
 <b>Other</b>	<ul style="list-style-type: none"> <li>• Limited parking on base</li> </ul>	<ul style="list-style-type: none"> <li>• Limited street parking close to base</li> <li>• Smart Growth Opportunity Areas: Midway-Pacific Highway and San Diego Peninsula in Point Loma</li> </ul>

Data current as of December 2018

The detailed installation profile can be found in the [Briefing Book \(Appendix A\)](#).

# Naval Base Coronado

Naval Base Coronado (NBC) is comprised of nine installations. More detailed information on the Naval Air Station North Island Coronado (NASNI), Naval Amphibious Base Coronado (NAB), Silver Strand Training Complex-South Coronado (SSTC), and Naval Outlying Landing Field, Imperial Beach (NOLF) can be found in the Briefing Book. The Navy provides on and off-base government housing options for military and civilian employees. Interstate 5 and State Route 75 are the major routes for NBC commuters.



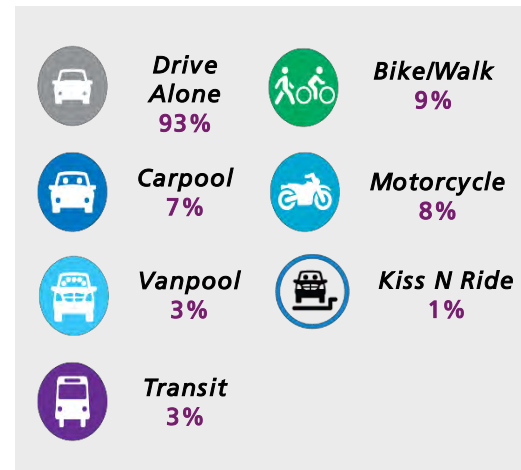
Individual NBC installation existing connectivity maps can be found in the [Briefing Book](#)

## Commute Origin of NBC

Commute Origin	Percent of Commuters
City of San Diego	47%
South San Diego County	32%
East San Diego County	12%
Riverside County	4%
North San Diego County	3%
Los Angeles County	1%
Other	2%
<b>Total Responses</b>	<b>1784</b>

Source: iCommute Survey Results, July 2016

## Commute Mode to NBC



Source: iCommute Survey Results, July 2016

## Commuting Patterns

- A majority of commuters to any of the NBC installations reside in the City of San Diego, followed by the City of Chula Vista, and the City of Coronado
- 86% of military personnel drive alone for a portion of their trip or their entire trip
- Commuters choose to drive alone due to the need for scheduling flexibility
- There are 58 registered iCommute vanpools that commute to NBC
- Very few commuters bike, walk, or take transit to work

## Top Challenges for Naval Base Coronado

### Traffic and Regional Connectivity

- SR 75 experiences traffic congestion from both the east (from I-5) and south (from Silver Strand) access corridors during peak hours
- Gate queuing onto local streets

### Mobility

- No shuttle between NAB and NASNI to accommodate trips between installations due to work tasks or military personnel living on one installation and working at the other
- No shuttle between NAB and NASNI
- No transit access to new SSTC gate











### Other

- Limited affordable housing options in nearby communities

Additional challenges can be found in the [Briefing Book \(Appendix A\)](#)



## Mobility Report Card Naval Base Coronado

Mobility Options	Supportive Programs/Infrastructure		
	On Base	City of Coronado	City of Imperial Beach
 <b>Walking/ Biking</b>	<ul style="list-style-type: none"> <li>NASNI - Activity centers (e.g. hangars) are far apart/spread out</li> <li>NAB, SSTC, NOLF - Activity centers are walkable/bikeable; however, gate access options are limited</li> </ul>	<ul style="list-style-type: none"> <li>Substantial sidewalks and low speed limits. No sidewalks on Silver Strand.</li> <li>Bayshore Bikeway</li> <li>Class II bike lanes on 1st St., 6th St., &amp; Glorietta Blvd.</li> <li>Class III bike route on Alameda St</li> </ul>	<ul style="list-style-type: none"> <li>Substantial sidewalks. No sidewalks on Silver Strand.</li> <li>Bayshore Bikeway</li> <li>Intermittent Class III bike routes along local streets</li> <li>Class II bike lanes on 13th St. and intermittent Class II bike lanes on Palm Avenue</li> </ul>
 <b>Public Transit</b>	<ul style="list-style-type: none"> <li>No transit services on base</li> </ul>	<ul style="list-style-type: none"> <li>MTS Route 901 and 904</li> <li>Ferry</li> </ul>	<ul style="list-style-type: none"> <li>MTS Blue Line Trolley</li> <li>MTS Routes 901, 933, and 934</li> </ul>
 <b>Microtransit</b>	<ul style="list-style-type: none"> <li>Internal shuttle on NASNI</li> </ul>	<ul style="list-style-type: none"> <li>No current service</li> </ul>	<ul style="list-style-type: none"> <li>No current service</li> </ul>
 <b>Carpool &amp; Vanpool</b>	<ul style="list-style-type: none"> <li>Vanpool subsidy with TIPS</li> <li>SANDAG iCommute Vanpool Program</li> <li>No designated parking spaces for carpool or vanpool</li> </ul>	<ul style="list-style-type: none"> <li>No existing High Occupancy Vehicle (HOV) lanes on SR 75</li> </ul>	<ul style="list-style-type: none"> <li>No existing High Occupancy Vehicle (HOV) lanes on SR 75</li> </ul>
 <b>Carshare</b>	<ul style="list-style-type: none"> <li>Limited government fleet</li> </ul>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>
 <b>On-Demand Rideshare</b>	<ul style="list-style-type: none"> <li>Waze Carpool</li> <li>Uber, Lyft with Security Clearance</li> </ul>	<ul style="list-style-type: none"> <li>Waze Carpool</li> <li>Uber, Lyft</li> </ul>	<ul style="list-style-type: none"> <li>Waze Carpool</li> <li>Uber, Lyft</li> </ul>
 <b>Bikeshare</b>	<ul style="list-style-type: none"> <li>Lime permitted on base</li> </ul>	<ul style="list-style-type: none"> <li>Prohibited per City policy</li> </ul>	<ul style="list-style-type: none"> <li>Lime</li> </ul>
 <b>Electric Bike &amp; Scootershare</b>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>	<ul style="list-style-type: none"> <li>Prohibited per City policy</li> </ul>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>
 <b>Neighborhood Electric Vehicle (NEV)</b>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>
 <b>Other</b>	<ul style="list-style-type: none"> <li>High supply of parking</li> <li>Limited Electric Vehicle charging infrastructure</li> <li>Some goods movement prohibited from using Coronado Bay Bridge and instead limited to Silver Strand access</li> </ul>	<ul style="list-style-type: none"> <li>Limited street parking close to base</li> <li>Smart Growth Opportunity Areas: Downtown Coronado and Ferry Landing</li> </ul>	<ul style="list-style-type: none"> <li>Traffic Signal Synchronization to base</li> <li>Smart Growth Opportunity Areas – Palm Avenue &amp; Seacoast Drive and Palm Avenue &amp; 9th St.</li> </ul>

Data current as of December 2018

The detailed installation profile can be found in the [Briefing Book \(Appendix A\)](#)

# Naval Base Point Loma

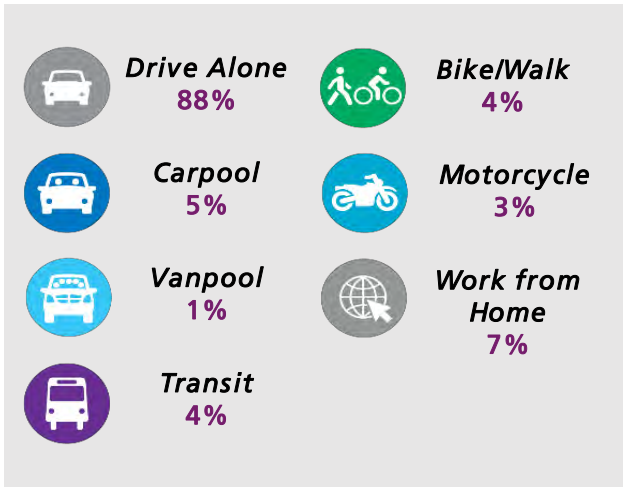
Naval Base Point Loma (NBPL) is located on the Point Loma peninsula within the City of San Diego. NBPL includes Naval Base Point Loma – Main Site/Submarine Base (Subbase), Harbor Drive Annex, Old Town Complex, Taylor Street Complex, and Lindbergh Field. NBPL Subbase is bordered by the community of Point Loma to the north, the San Diego Bay to the east, the Pacific Ocean to the west, and Cabrillo National Monument to the south. One major north-south corridor, the Interstate 5, and one major east-west facility, the Interstate 8, connect to major roads that provide access to the Coast Guard Station via driving, carpooling, and vanpooling. MTS Route 84 provides direct access to NBPL Subbase, once in the A.M. and once in the P.M.

## Commute Origin of NBPL

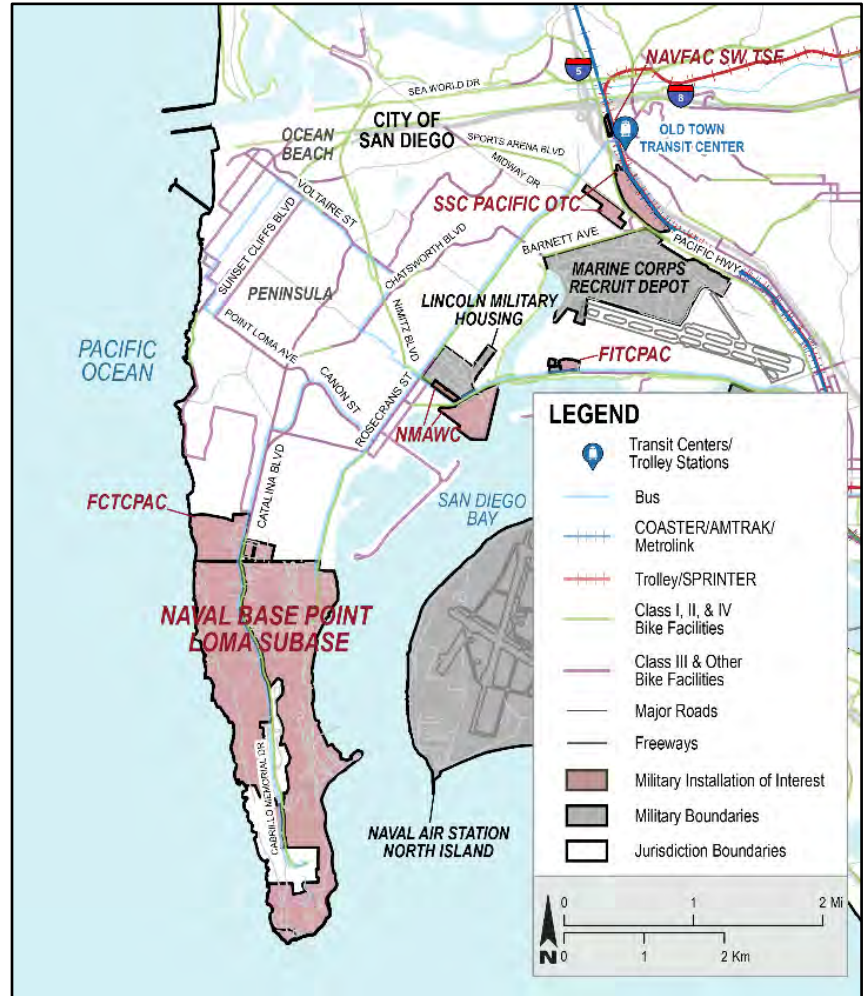
Commute Origin	Percent of Commuters
City of San Diego	52%
East San Diego County	19%
South San Diego County	13%
North San Diego County	10%
Riverside County	4%
Other	2%
<b>Total Responses</b>	<b>1,491</b>

Source: iCommute Survey Results, January 2018

## Commute Mode to NBPL



Source: iCommute Survey Results, January 2018



Naval Base Point Loma – Existing Connectivity

## Commuting Patterns

- Temporary lodging and bachelor units on NBPL and Harbor Drive Annex can accommodate up to 1,700 military and civilian employees
- A majority of commuters for NBPL reside in the City of San Diego
- The primary mode of commute for employees to NBPL is driving alone
- There are approximately 28 registered iCommute vanpools that go to NBPL
- The use of public transportation, biking, or walking as a commute mode to NBPL is minimal

MMAS: Appendix I

## Top Challenges for Naval Base Point Loma

### Traffic and Regional Connectivity











- Rosecrans Street traffic signals are not synchronized which creates significant queuing both on and off base
- Congestion on I-5, I-8, Rosecrans Street, and Harbor Drive delays commuters and goods movement
- Lack of affordable housing near the base

### Mobility

- Transit trips require multiple transfers between NBPL and the Annex
- Circulator shuttle was discontinued due to lack of funding & low ridership

Additional challenges can be found in the [Briefing Book \(Appendix A\)](#)

## Mobility Report Card Naval Base Point Loma

Mobility Options	Existing Supportive Programs/Infrastructure	
	On Base	City of San Diego
 <b>Walking/ Biking</b>	<ul style="list-style-type: none"> <li>• Walkable</li> </ul>	<ul style="list-style-type: none"> <li>• Bike facilities along Cabrillo Monument Dr. and Rosecrans St.</li> </ul>
 <b>Public Transit</b>	<ul style="list-style-type: none"> <li>• No public transportation on base</li> </ul>	<ul style="list-style-type: none"> <li>• MTS Route 84 and 923</li> </ul>
 <b>Microtransit</b>	<ul style="list-style-type: none"> <li>• No current services</li> </ul>	<ul style="list-style-type: none"> <li>• No current services</li> </ul>
 <b>Carpool &amp; Vanpool</b>	<ul style="list-style-type: none"> <li>• No designated carpool/vanpool spaces</li> </ul>	<ul style="list-style-type: none"> <li>• No existing High Occupancy Vehicle lanes on I-5 and I-8</li> </ul>
 <b>Carshare</b>	<ul style="list-style-type: none"> <li>• Limited government fleet</li> <li>• No current private carshare programs</li> </ul>	<ul style="list-style-type: none"> <li>• Zipcar</li> </ul>
 <b>On-Demand Rideshare</b>	<ul style="list-style-type: none"> <li>• Waze Carpool</li> <li>• Uber and Lyft with Security Clearance</li> </ul>	<ul style="list-style-type: none"> <li>• Waze Carpool</li> <li>• Uber, Lyft</li> </ul>
 <b>Bikeshare</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• Lime</li> </ul>
 <b>Electric Bike &amp; Scootershare</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• Bird</li> </ul>
 <b>Neighborhood Electric Vehicle (NEV)</b>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>
 <b>Other</b>	<ul style="list-style-type: none"> <li>• Ample parking on base</li> </ul>	<ul style="list-style-type: none"> <li>• Limited street parking close to base</li> <li>• Smart Growth Opportunity Area: Pacific Highway and San Diego Peninsula in Point Loma</li> </ul>

Data current as of December 2018

The detailed installation profile can be found in the [Briefing Book \(Appendix A\)](#).

# Naval Base San Diego – 32nd Street Facility

Naval Base San Diego (NBSD) is comprised of the following campuses: 32nd Street Facility Naval Base, Broadway Complex in Downtown San Diego, and the Naval Medical Center San Diego Complex near Balboa Park. The 32nd Street Facility is located along the San Diego Bay south of Downtown San Diego and the Barrio Logan community, and west of the City of National City. Interstate 5, Interstate 805, Interstate 15 are three major north-south corridors used to access the base via driving, carpooling, and vanpooling. State Route 54 is a major east-west connector south of the base that is also used to access the facility. The base is also accessible via the MTS Blue Line, a north-south Trolley service that runs parallel to Harbor Drive and has four stations within a mile of one or more of the base's access gates.



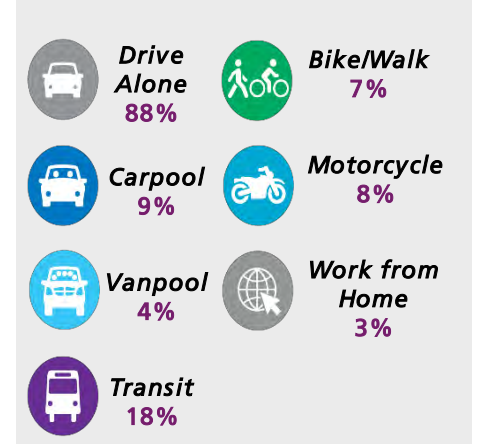
Naval Base San Diego-32<sup>nd</sup> Street Facility – Existing Connectivity

## Commute Origin of NBSD

Commute Origin	Percent of Commuters
City of San Diego	46%
South San Diego County	26%
East San Diego County	14%
North San Diego County	6%
Riverside County	6%
Other*	2%
<b>Total Responses</b>	<b>1,943</b>

Source: iCommute Survey Results, August 2018

## Commute Mode to NBSD



Source: iCommute Survey Results, August 2018

## Commuting Patterns

- There are over 4,600 bachelor housing units and 4,900 family housing units on base
- Personnel who live on base on the dry side do not have the option to drive which results in significant use of the pedestrian bridge south of 32nd Street
- 33 registered vanpools go to NBSD, accounting for 4% of commuter trips
- Personnel drive out of convenience and lack of transit service near their home
- Very few commuters bike, walk, or take transit to work due to proximity of off-base housing

## Top Challenges for Naval Base San Diego (32nd St)

### Traffic and Regional Connectivity

- Congestion along Harbor Drive and freeway ramps affects access to NBSD
- At-grade rail crossings at 28th Street and 32nd Street interrupt signal timing and coordination which contributes to congestion at adjacent intersections

### Mobility

- Limited connections between NBSD wet and dry sides
- Lack of transit service within NBSD to connect work locations and ship yards

### Other

- Congestion on Harbor Drive, especially at the intersection of 32nd Street and Harbor Drive, impedes goods movements and causes freight traffic to divert onto local roads

Additional challenges can be found in the [Briefing Book \(Appendix A\)](#)



## Mobility Report Card Naval Base San Diego – 32nd Street Complex

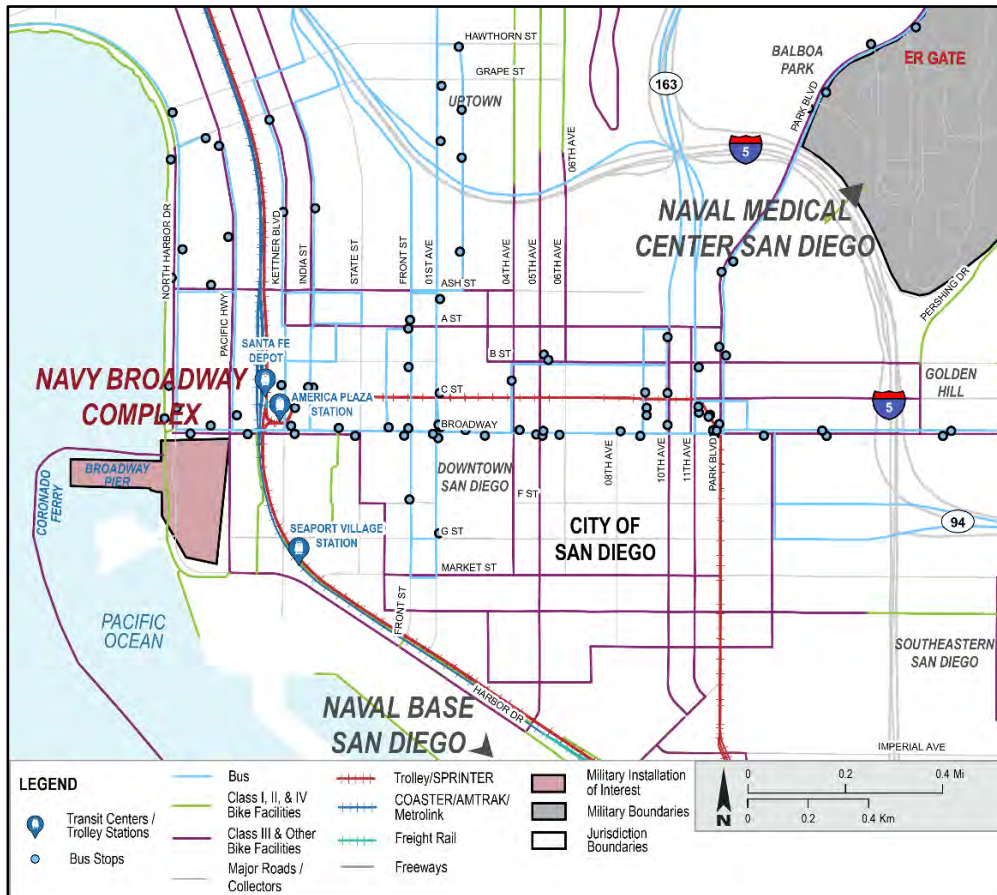
Mobility Options	Supportive Programs/Infrastructure		
	On base	City of Oceanside	City of National City
 <b>Walking/ Biking</b>	<ul style="list-style-type: none"> <li>Wet side is walkable</li> <li>Pedestrian bridges (external and internal) help people cross Harbor Drive</li> <li>Sharrows</li> </ul>	<ul style="list-style-type: none"> <li>Bayshore Bikeway along Harbor Drive</li> <li>Sidewalks on adjacent local roads</li> <li>Removing pedestrian bridges</li> </ul>	<ul style="list-style-type: none"> <li>Bayshore Bikeway along Harbor Drive</li> <li>Sidewalks on adjacent local roads</li> </ul>
 <b>Public Transit</b>	<ul style="list-style-type: none"> <li>No public transportation exists on base</li> </ul>	<ul style="list-style-type: none"> <li>Pacific Fleet Station - Trolley Only</li> <li>Harborside Station - Trolley Only</li> <li>MTS Route 929 provides direct access to base border</li> <li>MTS Routes 932, 955, 962, 963 travel through the city and stop at 8th Street Transit Center</li> </ul>	<ul style="list-style-type: none"> <li>24th Street Transit Center – Trolley &amp; local bus routes</li> <li>8th Street Transit Center - Trolley &amp; local bus routes</li> </ul>
 <b>Microtransit</b>	<ul style="list-style-type: none"> <li>AV Shuttle Pilot</li> <li>Internal Shuttle on wet side</li> </ul>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>
 <b>Carpool &amp; Vanpool</b>	<ul style="list-style-type: none"> <li>5% carpool, 8% vanpool</li> <li>Designated carpool and vanpool reserved parking spaces on-base</li> </ul>	<ul style="list-style-type: none"> <li>Limited parking at Trolley Stations/Transit Centers</li> <li>No HOV lanes on freeways leading to base</li> </ul>	<ul style="list-style-type: none"> <li>Limited parking at Trolley Stations/Transit Centers</li> <li>No HOV lanes on freeways leading to base</li> </ul>
 <b>Carshare</b>	<ul style="list-style-type: none"> <li>Limited government fleet</li> <li>No current carshare partnerships</li> </ul>	<ul style="list-style-type: none"> <li>Zipcar</li> </ul>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>
 <b>On-Demand Rideshare</b>	<ul style="list-style-type: none"> <li>Waze Carpool</li> <li>Uber and Lyft with Security Clearance</li> </ul>	<ul style="list-style-type: none"> <li>Waze Carpool, Uber, Lyft</li> </ul>	<ul style="list-style-type: none"> <li>Waze Carpool, Uber, Lyft</li> </ul>
 <b>Bikeshare</b>	<ul style="list-style-type: none"> <li>Lime Pilot</li> </ul>	<ul style="list-style-type: none"> <li>Lime, Discover Bike, JUMP</li> </ul>	<ul style="list-style-type: none"> <li>Lime</li> </ul>
 <b>Electric Bike &amp; Scootershare</b>	<ul style="list-style-type: none"> <li>Lime Pilot</li> </ul>	<ul style="list-style-type: none"> <li>Bird, Razor, Lime, Wheels, Wind</li> </ul>	<ul style="list-style-type: none"> <li>Lime</li> </ul>
 <b>Neighborhood Electric Vehicle (NEV)</b>	<ul style="list-style-type: none"> <li>No current partnerships</li> </ul>	<ul style="list-style-type: none"> <li>Circuit, formerly known as FRED</li> </ul>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>
 <b>Other</b>	<ul style="list-style-type: none"> <li>Removing parking on wet side for pier security clearance</li> <li>Parking lots on wet side repurposes to shipping workspace areas</li> <li>No parking for contractors on base</li> </ul>	<ul style="list-style-type: none"> <li>Limited street parking close to base</li> <li>Freight Signal Priority Pilot</li> <li>Smart Growth Opportunity Areas: Barrio Logan</li> </ul>	<ul style="list-style-type: none"> <li>Limited street parking close to base</li> <li>Limited parking at trolley stations</li> <li>Smart Growth Opportunity Areas: Downtown National City, Plaza Boulevard, and 8th Street</li> </ul>

Data current as of December 2018

The detailed installation profile can be found in the [Briefing Book \(Appendix A\)](#).

# Naval Base San Diego – Broadway Complex

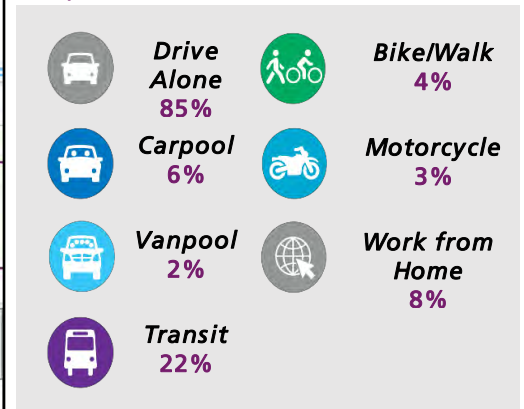
Naval Base San Diego (NBSD) is comprised of the following campuses: 32nd Street Facility Naval Base, Broadway Complex in Downtown San Diego, and the Naval Medical Center San Diego Complex near Balboa Park. The Broadway Complex is bordered by the San Diego Bay and Harbor Drive to the west, Broadway to the north, Pacific Highway to the east, and W Harbor Drive to the South. The Interstate 5, Interstate 15, and State Route 163 are three major north-south freeways and State Route 94 is a major east-west freeway for driving, carpooling, and vanpooling to the base. The Santa Fe Depot, located a half-mile from the facility, is served by Amtrak and NCTD’s COASTER. Additionally, there are several MTS bus stops and trolley stations that connect the facility to the region. The Broadway Complex benefits from the higher concentration of transit, micro-mobility, and supportive infrastructure (bike lanes, wide sidewalks) downtown.



Commuter Origin of NBSD – Broadway Complex

Commuter Origin	Percent of Commuters
City of San Diego	53%
South San Diego County	18%
East San Diego County	16%
North San Diego County	9%
Riverside County	2%
Total Responses	130

Commuter Mode to NBSD – Broadway Complex



Source: iCommute Survey Results, June 2016

Naval Base San Diego-Broadway Complex – Existing Connectivity

## Commuting Patterns

- Employees of Broadway Complex primarily live in the cities of San Diego and Chula Vista
- Small distribution of employees living in Riverside County and Orange County
- The primary mode of commute mode for employees is driving alone
- There are only seven registered vanpools that go to the Broadway Complex, and few travel by this option
- Many commuters bike, walk, take the train, or take transit to work
- The facility is successfully encouraging alternative commute options for employees due to the loss of on-facility parking areas

## Top Challenges for NBSD (Broadway Complex)

### Traffic and Regional Connectivity

- No carpool lanes on SR-163 or SR 94

### Mobility











- No designated carpool/vanpool spaces on base and these programs don’t align with variable work schedules

### Other

- Parking constraints on base due to construction of a new development

Additional challenges can be found in the [Briefing Book \(Appendix A\)](#)

## Mobility Report Card Naval Base San Diego Broadway Complex

Mobility Options	Supportive Programs/Infrastructure	
	On Base	City of San Diego
 <b>Walking/ Biking</b>	<ul style="list-style-type: none"> <li>• Base small and walkable</li> </ul>	<ul style="list-style-type: none"> <li>• Sidewalks on adjacent local roads</li> <li>• Bike facilities along Harbor Drive, Broadway, and Pacific Highway</li> <li>• Bayshore Bikeway adjacent to base</li> </ul>
 <b>Public Transit</b>	<ul style="list-style-type: none"> <li>• Multiple transit routes adjacent to the facility</li> </ul>	<ul style="list-style-type: none"> <li>• MTS Route 932, 992, 280, and 290</li> <li>• Seaport Village Trolley Station</li> <li>• America Plaza Trolley Station</li> <li>• Santa Fe Depot</li> <li>• Ferry Terminal located adjacent to base, connect Downtown San Diego to Coronado</li> </ul>
 <b>Microtransit</b>	<ul style="list-style-type: none"> <li>• No shuttle service within base</li> </ul>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>
 <b>Carpool &amp; Vanpool</b>	<ul style="list-style-type: none"> <li>• 6% carpool / 2% vanpool</li> <li>• No designated carpool / vanpool spaces</li> </ul>	<ul style="list-style-type: none"> <li>• No current programs</li> </ul>
 <b>Carshare</b>	<ul style="list-style-type: none"> <li>• Limited Government Fleet</li> <li>• No Current Private Carshare Programs</li> </ul>	<ul style="list-style-type: none"> <li>• Zipcar</li> </ul>
 <b>On-Demand Rideshare</b>	<ul style="list-style-type: none"> <li>• Waze Carpool</li> <li>• Uber and Lyft with Security Clearance</li> </ul>	<ul style="list-style-type: none"> <li>• Waze Carpool, Uber, UberPool, Lyft, LyftLine Express</li> </ul>
 <b>Bikeshare</b>	<ul style="list-style-type: none"> <li>• Lime Pilot</li> </ul>	<ul style="list-style-type: none"> <li>• Lime, Discover Bike, JUMP</li> </ul>
 <b>Electric Bike &amp; Scootershare</b>	<ul style="list-style-type: none"> <li>• Lime Pilot</li> </ul>	<ul style="list-style-type: none"> <li>• Bird, Razor, Lime, Wheels, Wind</li> </ul>
 <b>Neighborhood Electric Vehicle (NEV)</b>	<ul style="list-style-type: none"> <li>• No Current Partnerships</li> </ul>	<ul style="list-style-type: none"> <li>• Circuit, formerly known as FRED</li> </ul>
 <b>Other</b>	<ul style="list-style-type: none"> <li>• Removing parking on base, relocating parking to lot east of the 8th Transit Center</li> </ul>	<ul style="list-style-type: none"> <li>• Limited street parking close to base</li> <li>• Privately owned parking lots in Downtown</li> <li>• Smart Growth Opportunity Area: Centre City/Downtown</li> </ul>

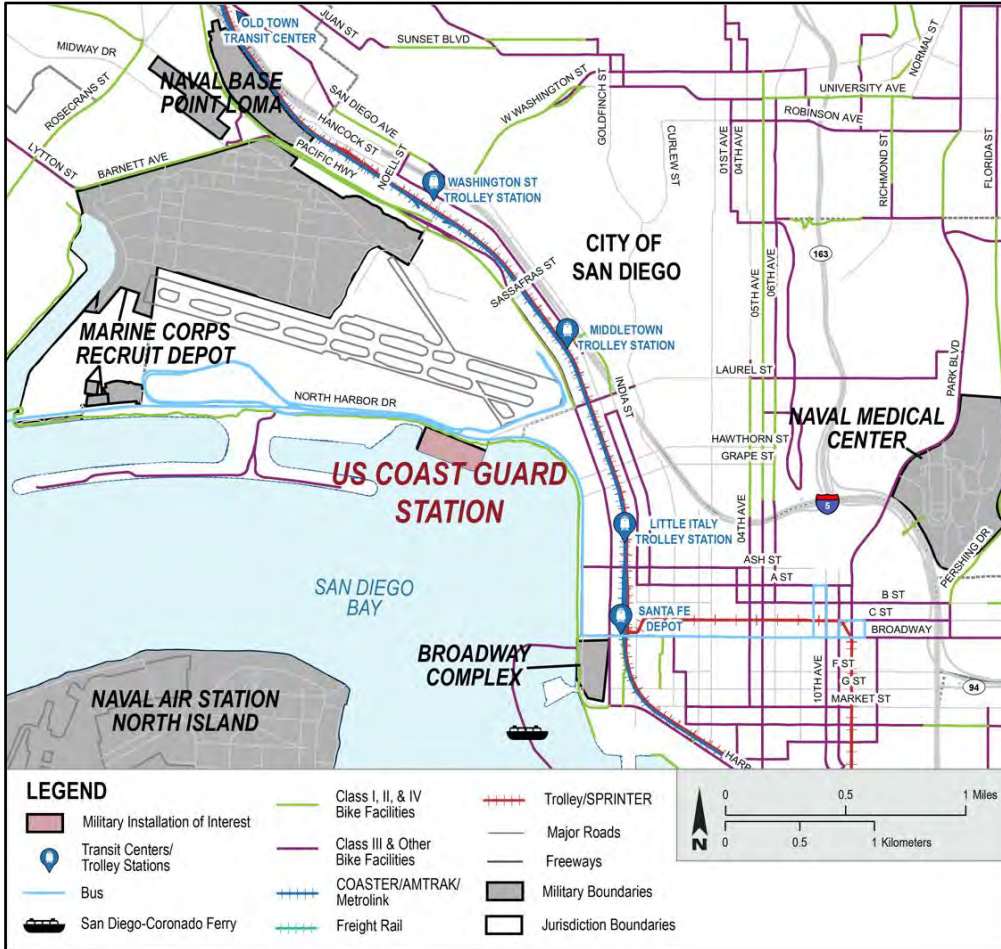
Data current as of December 2018

The detailed installation profile can be found in the [Briefing Book \(Appendix A\)](#).



# U.S. Coast Guard Station

The U.S. Coast Guard Station is located in the City of San Diego, along the San Diego Bay, adjacent to Harbor Drive and the San Diego International Airport. The facility is adjacent to the Downtown community, the Port of San Diego and San Diego Airport Authority Jurisdictions. One major north-south corridor, the Interstate 5, and one major east-west facility, the Interstate 8, connect to major roads that provide access to the Coast Guard Station via driving, carpooling, and vanpooling. The installation is located approximately one mile away from the Middletown Trolley Station and is accessible via MTS Routes 923 and 992 along North Harbor Drive.



U.S. Coast Guard Station – Existing Connectivity

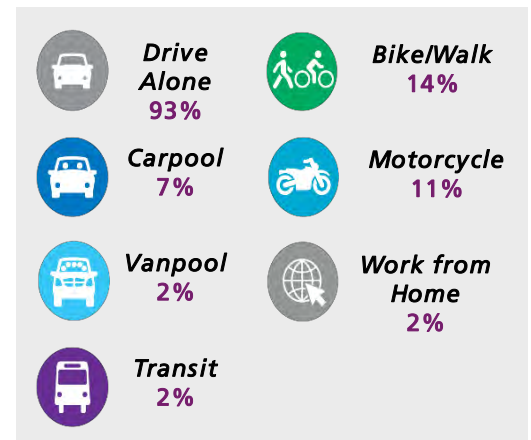
## Commuting Patterns

- Military personnel mostly commute from City of San Diego communities
- Junior personnel are commonly housed in the closer communities of Point Loma and Pacific Beach
- Coast Guard personnel commute from military housing communities throughout the region including Temecula, Alpine, and Chula Vista
- In 2017, 85% of Coast Guard personnel commuted by driving alone to work
- The Coast Guard facility is expected to double its workforce over the next 20 years

## Commute Origin of U.S. Coast Guard Station

Commute Origin	Percent of Commuters
City of San Diego	56%
South San Diego County	15%
East San Diego County	13%
North San Diego County	6%
Riverside County	6%
Other	2%
<b>Total Responses</b>	<b>142</b>

Source: iCommute Survey Results, January 2017



Source: iCommute Survey Results, January 2017

## Top Challenges for U.S. Coast Guard Station

### Traffic and Regional Connectivity

- Congestion along Harbor Drive associated with the San Diego International Airport and its planned expansion affects access to U.S. Coast Guard Station and delays freight movement through the corridor











### Other

- Lack of on-base housing
- Lack of easily accessible and nearby housing
- Multiple stakeholders and agencies share the Harbor Drive corridor and have invested interests for the proposed and planned projects

Additional challenges can be found in the [Briefing Book \(Appendix A\)](#)



## Mobility Report Card U.S. Coast Guard

Mobility Options	Supportive Programs/Infrastructure	
	On Base	City of San Diego
 <b>Walking/ Biking</b>	<ul style="list-style-type: none"> <li>Walkable</li> </ul>	<ul style="list-style-type: none"> <li>Class I multiuse path on North Harbor Dr.</li> <li>No westbound bike facilities on Laurel Street or North Harbor Dr.</li> <li>Mix of Class II and Class III bike facility networks in Uptown/Downtown communities</li> </ul>
 <b>Public Transit</b>	<ul style="list-style-type: none"> <li>No transit services on base</li> </ul>	<ul style="list-style-type: none"> <li>MTS Route 923 and 992</li> </ul>
 <b>Microtransit</b>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>	<ul style="list-style-type: none"> <li>No current services</li> </ul>
 <b>Carpool &amp; Vanpool</b>	<ul style="list-style-type: none"> <li>Vanpool subsidy with TIPS</li> <li>SANDAG iCommute Vanpool Program</li> </ul>	<ul style="list-style-type: none"> <li>No existing High Occupancy Vehicle lanes on I-5 and I-8</li> </ul>
 <b>Carshare</b>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>	<ul style="list-style-type: none"> <li>Zipcar</li> </ul>
 <b>On-Demand Rideshare</b>	<ul style="list-style-type: none"> <li>Waze Carpool Pilot</li> <li>Uber, Lyft</li> </ul>	<ul style="list-style-type: none"> <li>Waze Carpool</li> <li>Uber, Lyft</li> </ul>
 <b>Bikeshare</b>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>	<ul style="list-style-type: none"> <li>Lime, Discover Bike</li> </ul>
 <b>Electric Bike &amp; Scootershare</b>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>	<ul style="list-style-type: none"> <li>Electric bike: Lime, JUMP</li> <li>Electric scooter: Lime, Bird, Razor, Wheels, Wind</li> </ul>
 <b>Neighborhood Electric Vehicle (NEV)</b>	<ul style="list-style-type: none"> <li>No current programs</li> </ul>	<ul style="list-style-type: none"> <li>Circuit, formerly known as FRED</li> </ul>
 <b>Other</b>	<ul style="list-style-type: none"> <li>Limited parking on base</li> </ul>	<ul style="list-style-type: none"> <li>Limited street parking close to base</li> <li>Smart growth opportunity areas: Midway-Pacific Highway and San Diego Peninsula in Point Loma</li> </ul>

Data current as of December 2018

The detailed installation profile can be found in the [Briefing Book \(Appendix A\)](#).



# Appendix J

**Memorandum of Agreement between  
U.S. Department of Defense and  
the SANDAG Board of Directors (2017)**

**SAN DIEGO ASSOCIATION OF GOVERNMENTS (SANDAG)  
401 B. STREET, SUITE 800  
SAN DIEGO, CA, 92101**

**COMMANDER, NAVY REGION SOUTHWEST  
937 N. HARBOR DRIVE  
SAN DIEGO, CA 92132**

**COMMANDING GENERAL,  
MARINE CORPS INSTALLATIONS WEST  
MARINE CORPS BASE, CAMP PENDLETON  
MCIWEST-MCB CAMPEN G-7 GEA/REC  
PO BOX 555010  
CAMP PENDLETON, CA 92055**

**COMMANDING GENERAL,  
MARINE CORPS RECRUIT DEPOT/WESTERN RECRUITING REGION  
1600 HENDERSON AVENUE, SUITE 238  
SAN DIEGO, CA 92140**

**COMMANDER  
UNITED STATES COAST GUARD SECTOR SAN DIEGO  
2170 N HARBOR DRIVE  
SAN DIEGO, CA 92101**

**MEMORANDUM OF AGREEMENT (MOA)  
BETWEEN  
SAN DIEGO ASSOCIATION OF GOVERNMENTS (SANDAG)  
AND  
THE ARMED FORCES:**

**COMMANDER, NAVY REGION SOUTHWEST (CNRSW)  
AND  
MARINE CORPS INSTALLATION WEST-MARINE CORPS BASE, CAMP  
PENDLETON (MCIWEST-MCB CAMPEN)  
AND  
MARINE CORPS RECRUIT DEPOT/WESTERN RECRUITING REGION  
(MCRD/WRR)  
AND  
COMMANDER, UNITED STATES COAST GUARD SECTOR SAN DIEGO (USCG SD)**

**CNRSW  
SSIC 5760  
N00242-20161209-X02-MOA**

**Subj:** MOA to Define Roles and Responsibilities Between SANDAG and the Armed Forces to Facilitate Collaboration in Areas of Mutual Interest

**Ref:** (a) SANDAG and DoD MOA of June 1986  
(b) 2013 SD Regional Military Working Group Charter  
(c) 10 USC§101(a)(4)

1. **Purpose.** This MOA defines roles and responsibilities between SANDAG and the “Armed Forces,” as identified above, and facilitates collaboration in areas of mutual interest, including growth management, habitat, transportation, regional growth, housing, water, energy, and other topics that can help facilitate the parties’ missions.

2. **Background.** SANDAG and the Armed Forces have maintained a collaborative relationship for decades relying on an MOA first executed in 1980 and updated in 1986. See Ref (a). In 2013, in light of continued growth in the County of San Diego, SANDAG formed the San Diego Regional Military Working Group (MWG), which meets regularly to address issues of mutual interest. See Ref (b).

3. **Scope.** This MOA replaces the 1986 MOA to reflect MWG work and updates the military ex-officio liaison membership on the SANDAG Board of Directors. SANDAG and the Armed Services will coordinate via this MOA. “Armed Forces,” for the purposes of this MOA include the US Navy, US Marine Corps and US Coast Guard within the County of San Diego. See Ref (c).

#### 4. **Responsibilities**

4.1. SANDAG will support the MWG consistent with the MWG charter, Ref (b) as follows:

4.1.1 Review current activities and plans being implemented by the various Armed Forces within the County of San Diego.

4.1.2. Coordinate programs, address issues of concern, and determine the best ways in which SANDAG can support effective operations of the military.

4.1.3. Assist with the associated outreach to the military community on issues of regional significance, including development of the regional growth forecast and the Regional Plan.

4.2. CNRSW will:

4.2.1. Represent the Armed Forces as a Department of Defense liaison to SANDAG.

4.2.2. Designate primary and alternate liaisons to SANDAG, in writing, and advise the SANDAG Clerk of the Board, in writing, of any changes.

4.2.3. Support the MWG consistent with its charter, Ref (b).

Subj: MOA to Define Roles and Responsibilities Between SANDAG and the Armed Forces to Facilitate Collaboration in Areas of Mutual Interest

4.2.4. Support relevant SANDAG policy advisory committees.

4.3. The Commanding General, MCIWEST-MCB CAMPEN will:

4.3.1. Support the MWG consistent with its charter.

4.3.2. Support relevant SANDAG policy advisory committees.

4.4. The Commanding General, MCRD/MRR will:

4.4.1. Support the MWG consistent with its charter.

4.4.2. Support relevant SANDAG policy advisory committees.

4.5. The Sector Commander, USCG SD will:

4.5.1. Support the MWG consistent with its charter.

4.5.2. Support relevant SANDAG policy advisory committees.

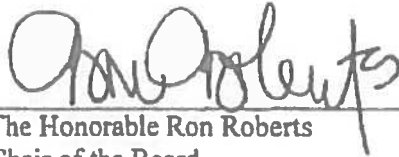
5. Points of Contact (POC). The Commander CNRSW POC is Executive Director, 619-532-2925, 937 N. Harbor Drive, SD, CA 92132. The SANDAG POC is Executive Director, 619-699-1990, 401 B Street, Suite 800, San Diego, CA 92101.

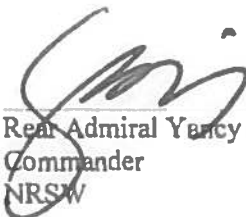
6. Other Provisions. Any obligation of funds by the Armed Forces is subject to the availability of funds. Nothing in this MOA shall be construed to obligate the United States or the Armed Forces to any expenditure of funds in advance of any congressional appropriation.

7. Changes. Changes/amendments to this MOA shall be made by mutual written consent of the signatories, and will be recorded and published as addenda to this MOA.

8. Termination/Expiration. This MOA supersedes reference (a). Any signatory may withdraw from this MOA after giving at least 60 days written notice to the other signatories. This MOA may also be terminated at any time upon the mutual written consent of all signatories. Unless otherwise terminated, this MOA will remain in effect for six years after its effective date and will be reviewed triennially by the MWG.

9. Effective Date. This MOA will become effective on the date of the last signature.


  
The Honorable Ron Roberts  
Chair of the Board  
SANDAG

  
Rear Admiral Yancy Lindsey  
Commander  
NRSW

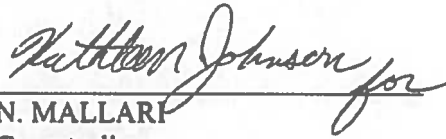
Subj: MOA to Define Roles and Responsibilities Between SANDAG and the Armed Forces to Facilitate Collaboration in Areas of Mutual Interest



K. J. KILLEA  
Brigadier General, U.S. Marine Corps  
Commanding General  
MCIWEST-MCB CAMPEN  
Date:



W. M. JURNEY  
Brigadier General, U.S. Marine Corps  
Commanding General  
MCRD/WRR  
Date: 27 JUN 2017



JOSEPH BUZZELLA  
CAPT, U.S. Coast Guard  
Commander  
USCG SD  
Date:

N. MALLARI  
Comptroller  
Navy Region Southwest  
Date: