

CENTRAL MOBILITY HUB AND CONNECTIONS COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

Appendix B: Existing and Future Conditions

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B. Existing and Future Conditions

This document includes data extracted from SANDAG's Data Viewer, which combines the most updated datasets on existing and projected demographic and travel trends in San Diego County. Land use, population, and employment play key roles in influencing travel behavior, and are described in more detail below.

B.1. Population and Employment

The most densely populated communities within the study area include Downtown San Diego, Midtown, Ocean Beach and portions of northern Point Loma. Moderately dense geographic areas include the communities of Mission Hills, the Midway District. The least densely populated areas within the study area are located along I-5 in Old Town, on the peninsula of Point Loma, and in the communities near Liberty Station and SDIA.

The total population within the San Diego region is expected to increase by approximately 13% from 3.3 million to 3.7 million by 2050, per the 2019 Federal RTP. The most significant growth will be located along major transportation corridors including I-5 and I-8, particularly near Sports Arena Boulevard. The greatest growth, however, is forecasted at the intersection of I-5 and I-8.

Figure B-1: Existing Population Density

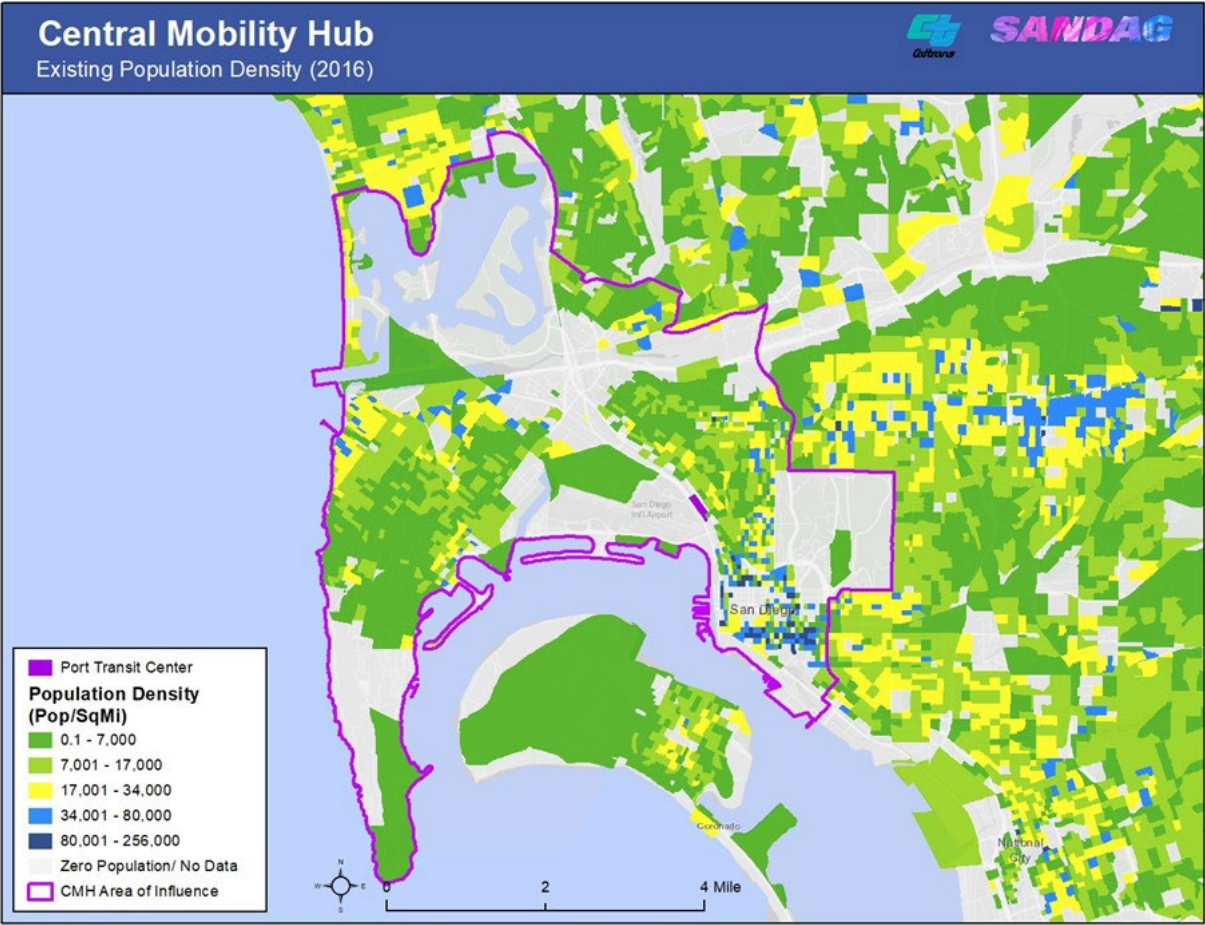
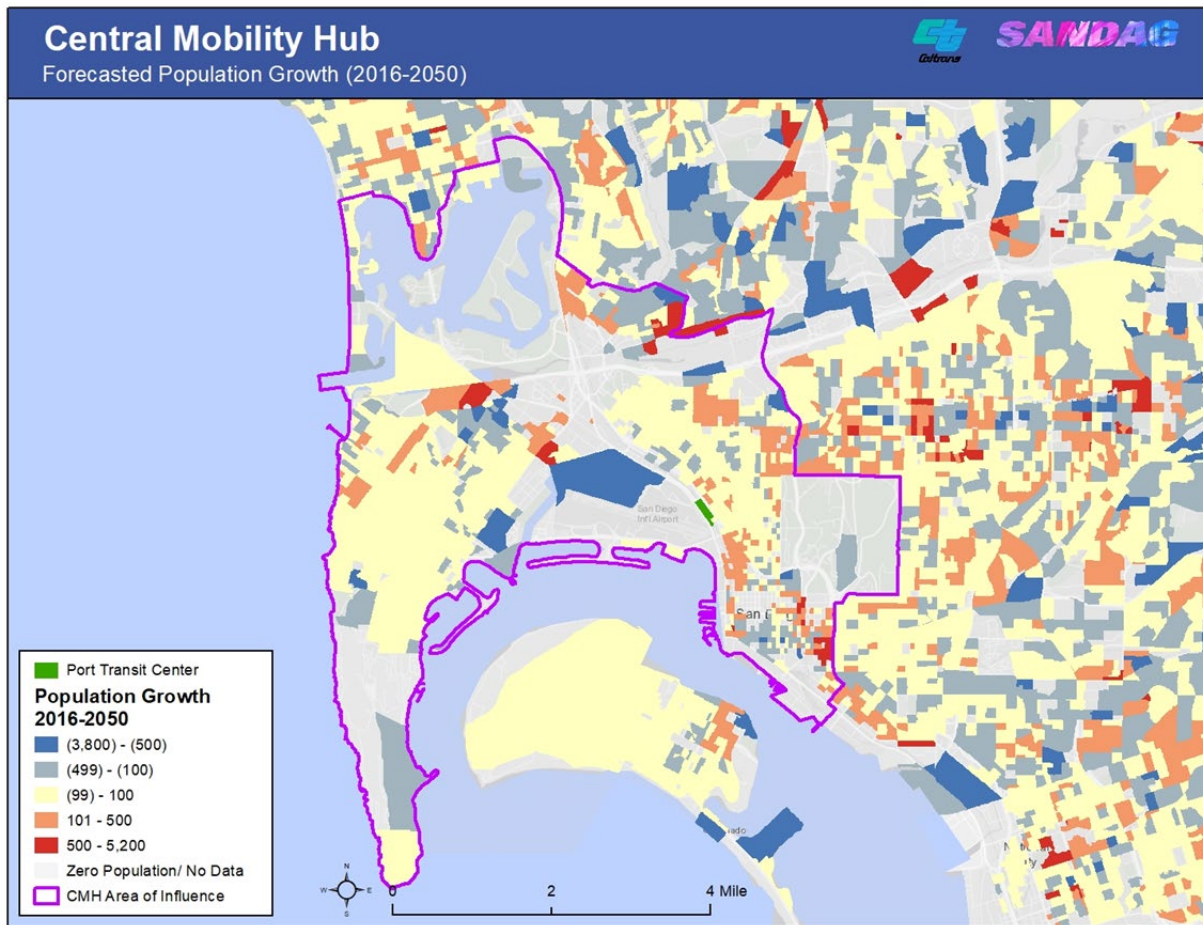
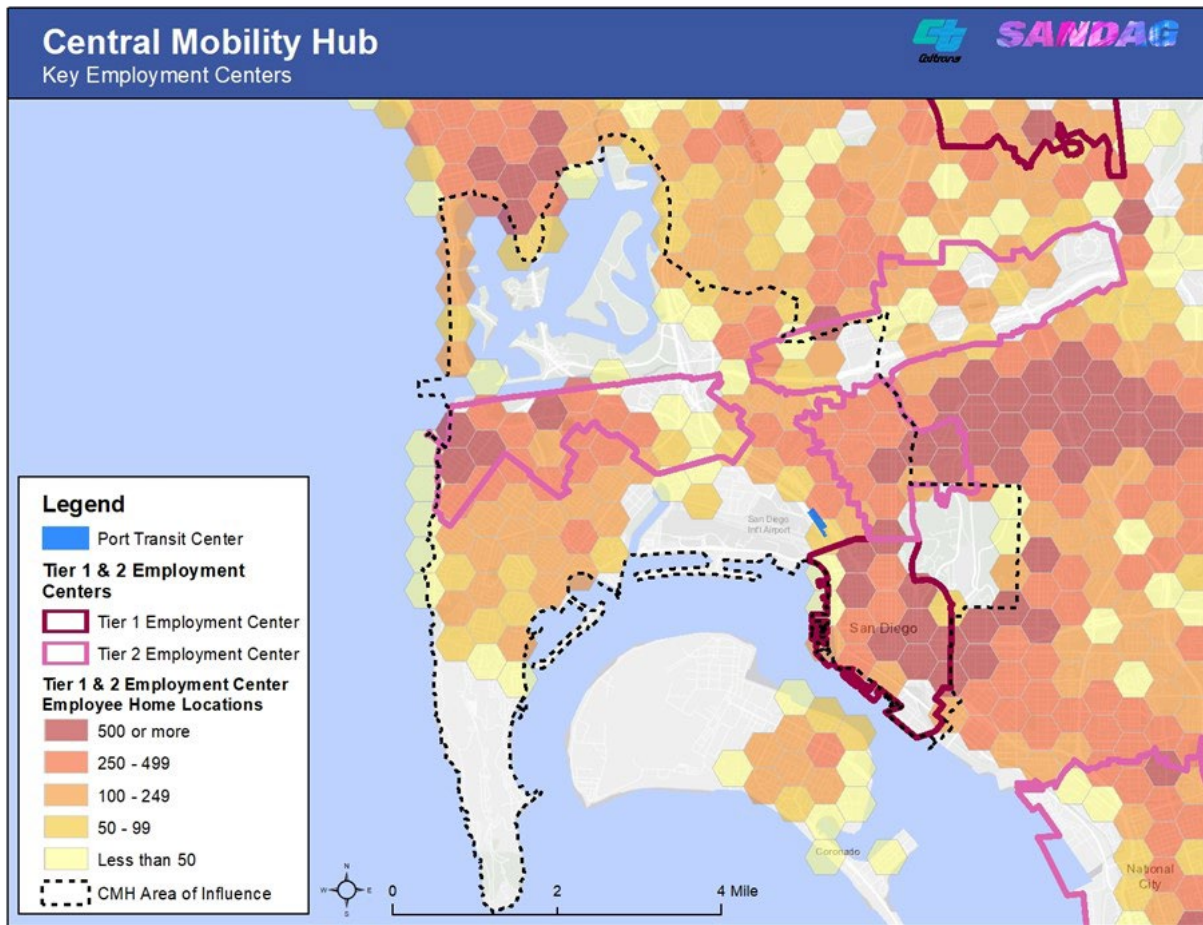


Figure B-2: Forecasted Population Growth (2016-2050)



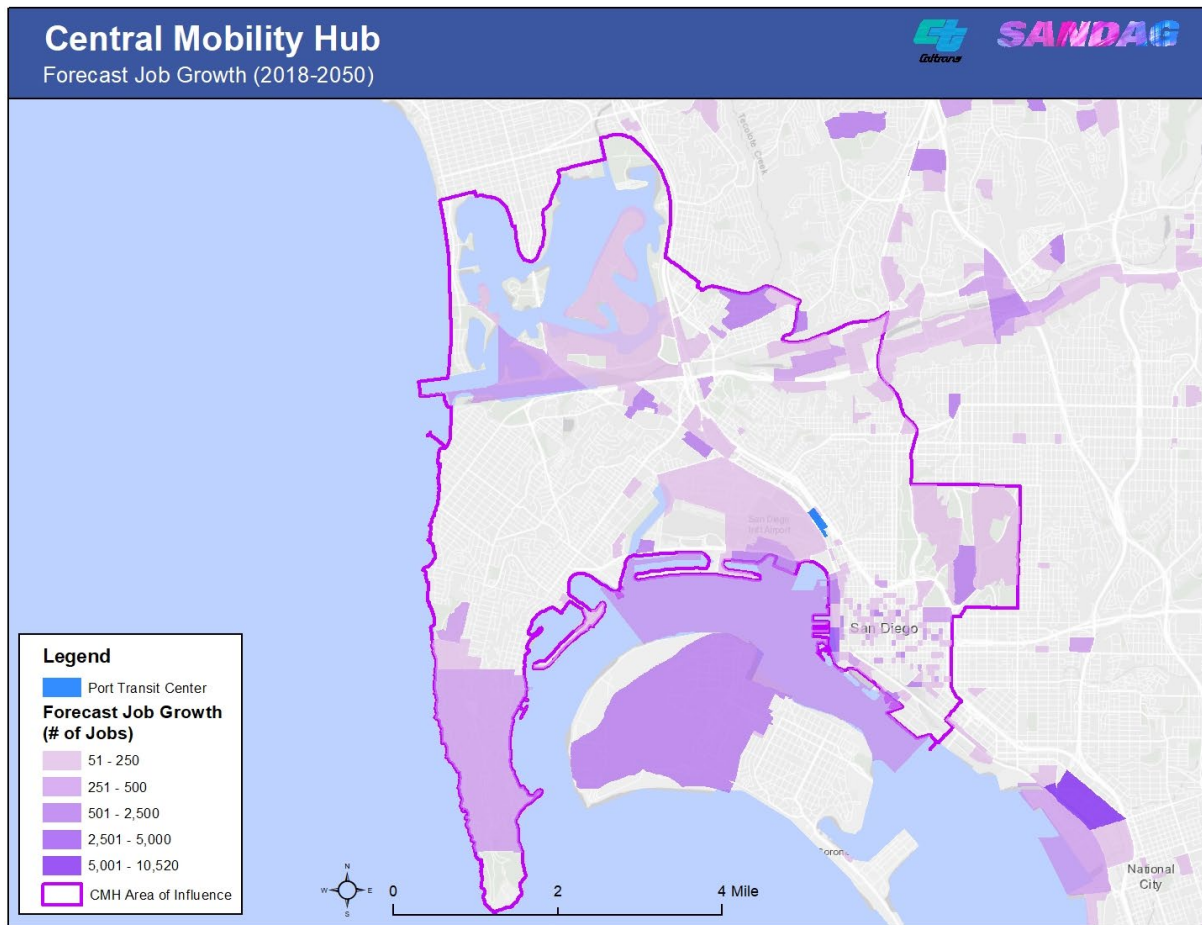
The key employment center within the study area is Downtown San Diego, which is a Tier 1 employment center. Other notable employment destinations include the Midway District, Midtown, and Uptown.

Figure B-3: Key Employment Centers



Employment within the region is projected to grow by approximately 27% by the year 2050. This is partially due to the military and naval facilities located within the region.

Figure B-4: Draft Forecast Job Growth (2018-2050)



B.2. Land Use

The study area reflects a variety of land uses within several different communities. Primary land uses within the study area include residential, commercial and office, recreational, transportation, and military.

The Midway community is predominantly characterized by industrial uses, with larger auto-oriented commercial uses located along “superblocks” found within the community. Existing land uses in the Old Town community include retail, hotel, restaurants, and professional office uses. Middletown includes a mix of single-family and multi-family housing, as well as commercial and entertainment. Land uses within Little Italy include single and multi-family housing, mixed-use development, mixed-commercial uses, and park/open spaces. Little Italy has increasingly become dominated by mixed-use development.

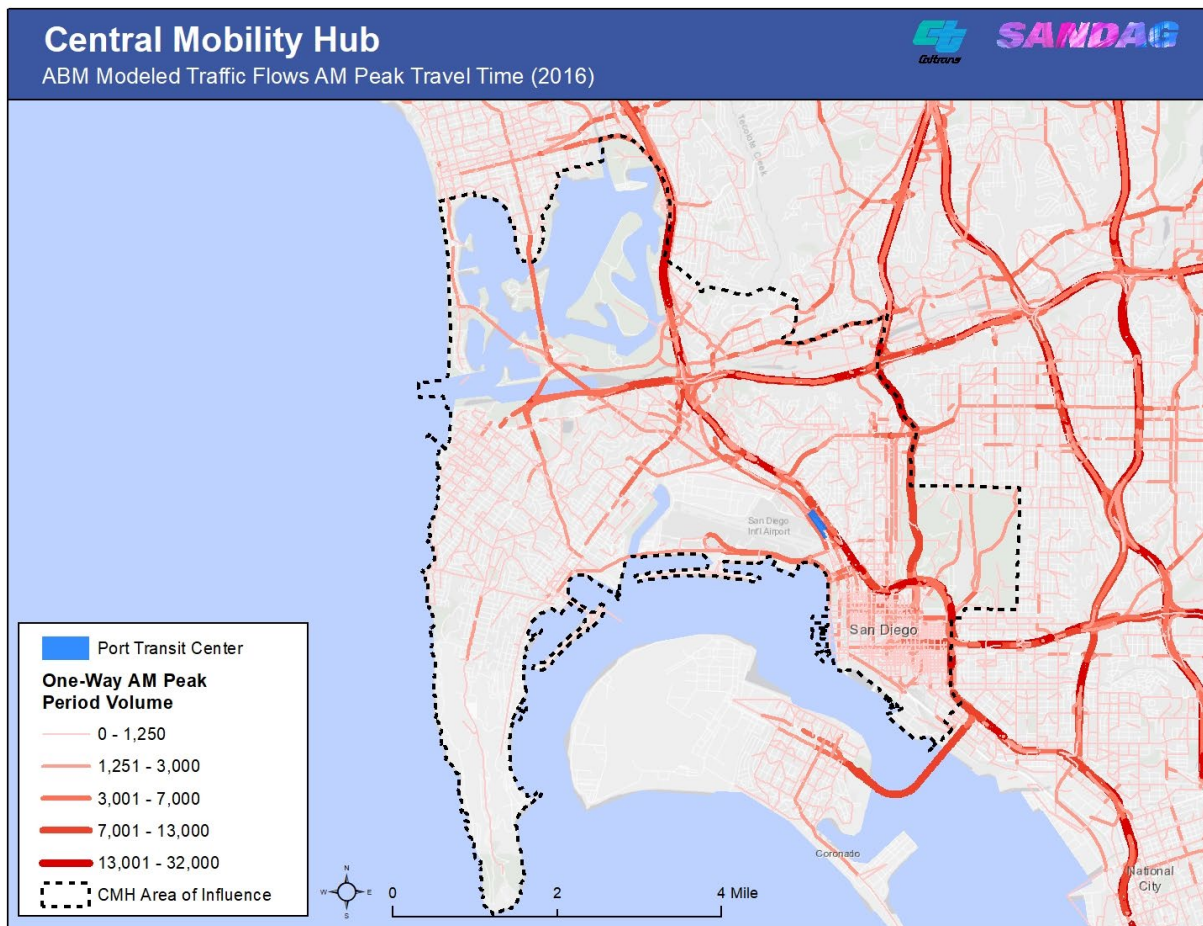
The corridor also includes several sensitive landscapes including parks, military land and waterfront areas. These areas present physical constraints for mobility, and increased susceptibility to natural impacts such as from flooding and wildfires.

B.3. Traffic Flows

During AM peak hours, associated with morning work commute trips, the heaviest traffic flows were identified along I-5 and along the eastern portion of I-8. Traffic flows along I-5 are generally higher in volume during PM peak hours, in the northbound direction, while traffic flows along I-8 are generally higher in the AM peak hours in the westbound direction.

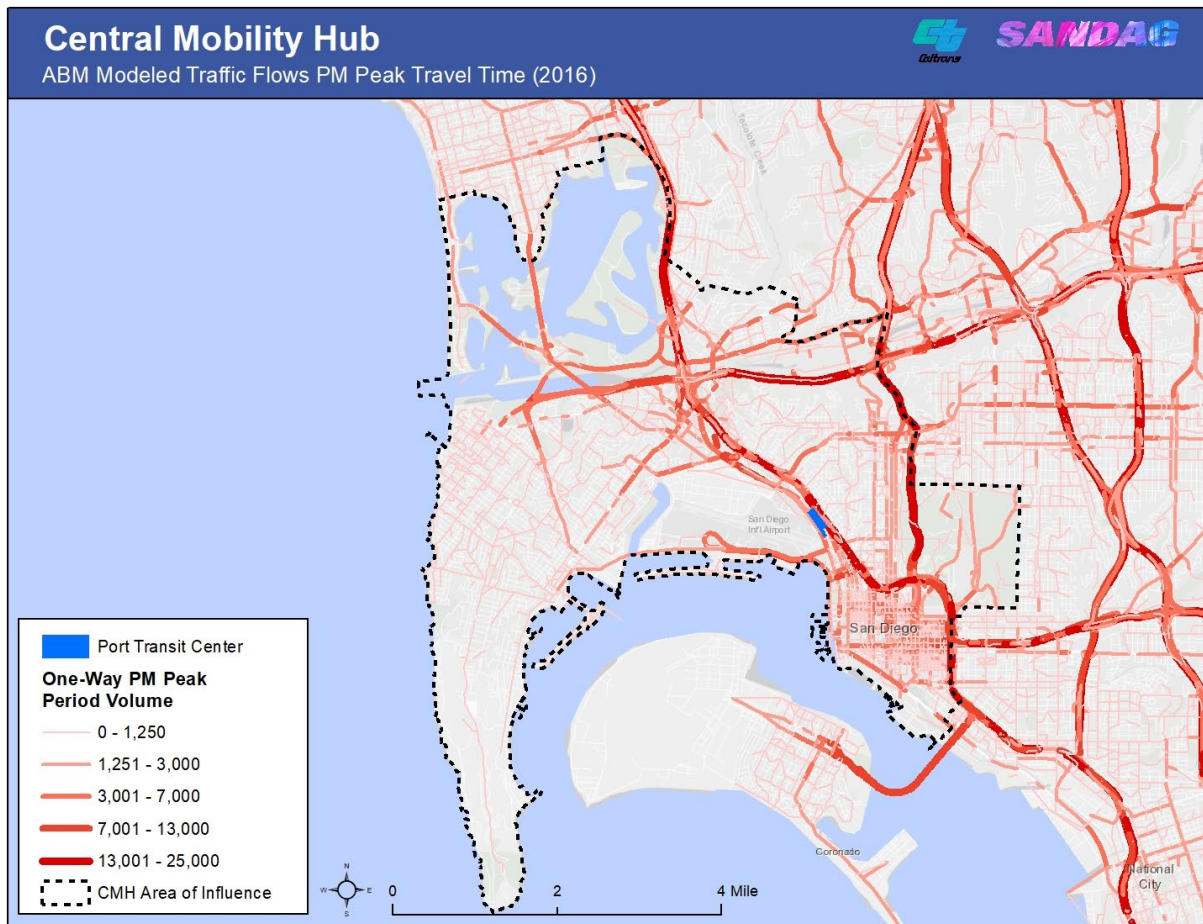
Other corridors identified to have significant travel flows during the AM peak travel hours include Rosecrans Street, Barnett Avenue, and W Washington Street.

Figure B-5: AM Peak Period Travel Flow



Traffic flows are generally higher during evening peak travel hours than during morning commutes. Like morning peak travel time flows, the corridors which reflect the heaviest traffic include I-5, I-15, and I-8. Additional major arterials which experience significant traffic during PM peak travel include Rosecrans Street, Barnett Avenue, and W. Washington Street. Traffic flows are higher during peak PM hours along Rosecrans Street when traveling in the northbound, eastbound, and westbound direction than during morning commute times. Similarly, traffic flows are higher during PM peak travel hours when traveling in the northbound and westbound direction, than during morning commutes.

Figure B-6: PM Peak Period Travel Flow



B.4. Transit

A variety of multimodal transit services are provided to residents and commuters within the CMH and Connections study area, as reflected in Figure 2-19. These services include commuter and intercity rail, light rail, and Rapid and local bus.



The COASTER, operated by North County Transit District (NCTD), provides commuter rail service to passengers traveling throughout the region. Within the CMH and Connections CMCP study area, the COASTER stops at the Old Town Transit Center and at Santa Fe Depot in Downtown. The COASTER operates seven days a week from 5 AM until 8 PM.



Pacific Surfliner, operated by Amtrak, provides intercity rail services from Santa Fe Depot from Santa Fe Depot and Old Town to destinations throughout Southern California, including Anaheim, Los Angeles, and Santa Barbara. The Pacific Surfliner operates daily, with 10 daily departures or arrivals to Santa Fe Depot between 4 AM and 9 PM northbound, and 9 AM to 1:15 AM southbound.



The San Diego Trolley, operated by San Diego Metropolitan Transit System (MTS), provides light rail service to passengers traveling shorter distances along three routes. The UC San Diego Blue Line provides north-south transit access across the study area, extending from University Town Center and UC San Diego to San Ysidro. The Blue Line departs every 7-8 minutes Monday through Friday from 4:30 AM until 1 AM and every 15 minutes on weekends from 5 AM until 1 AM.



The Sycuan Green Line runs parallel to I-8 in the eastern portion of the study area and extends along I-5 before reaching its southern terminus near Commercial Street in Downtown. The Green Line departs every 15 minutes Monday through Friday from 5 AM until 1 AM and departs every 15-30 minutes on Weekends from 5 AM until 1 AM.

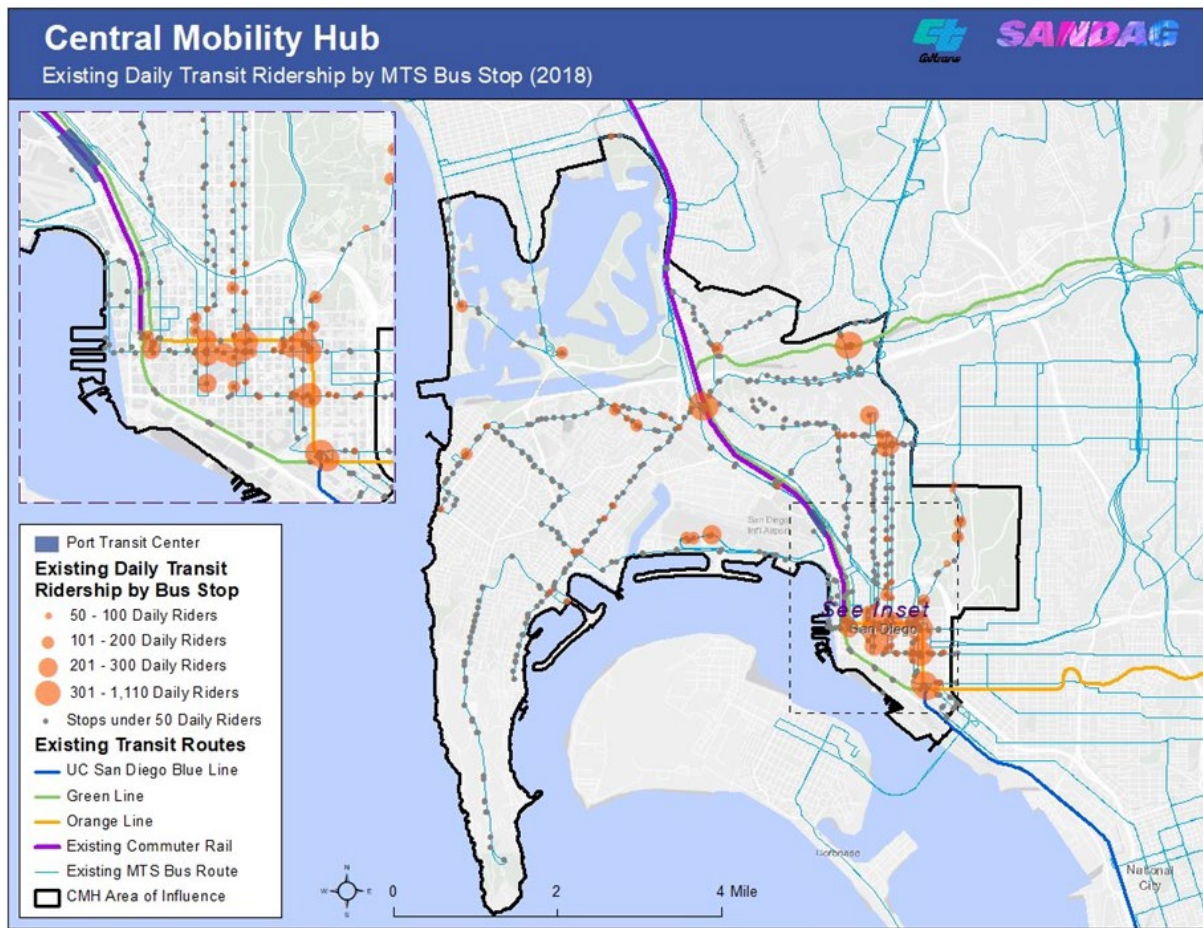


The Orange Line provides transit access within the southern portion of the study area, and extends into East County from Broadway, south along Park Blvd, and east along Commercial Street. The Orange Line departs every 15 minutes Monday through Friday from 5 AM until 1 AM, every 15 minutes on Saturdays from 5 AM until 12:30 PM, and every 15 minutes on Sundays from 5 AM until 11 PM.

The I-15 Rapid, operated by MTS, runs along I-15 along the eastern border of the CMH and Connections study area. MTS also operates four Rapid bus routes within the CMCP study area including routes 215, 235, 280, and 290. These routes provide access to Downtown San Diego before reaching their terminus at W. Grape Street and Pacific Highway in Little Italy.

Local bus service within the study area is operated by MTS and provides access primarily to the Midway District, Coronado, Uptown, Midtown, and Downtown. Local bus routes providing transit service within the study area include routes 7, 8, 10, 11, 20, 28, 30, 35, 50, 83, 84, 88, 110, 150, 215, 901, 923, and 992.

Figure B-7: Existing Transit Network



The table below reflects the estimated ridership numbers for San Diego light rail and commuter rail transit services as indicated by the SANDAG Passenger Counting Program for 2021¹.

The table below shows weekday ridership for local bus routes running through the CMH and Connections CMCP study area (pre-COVID)².

Table B-1: Daily MTS Ridership by Stop and Route (2018)

Daily MTS Ridership by Stop and Route			
Rank	MTS Stop	Route	Daily Boardings
1	11 th / Broadway	215	1,109
2	11 th / C	7	1,048
3	Old Town Transit Center	44	999
4	Broadway/ Park	235	945
5	Old Town Transit Center	35	876
6	Old Town Transit Center	10	854
7	12 th / Imperial Transit Center	12	837
8	12 th / Imperial Transit Center	929	786
9	Fashion Valley Transit Center	41	687
10	Old Town Transit Center	30	595
11	Old Town Transit Center	28	546
12	12 th / Imperial Transit Center	4	526
13	Market/ Park	5	516
14	Old Town Transit Center	8	512
15	Old Town Transit Center	150	489
16	Broadway/ Park	2	473
17	Market/ Park	3	473
18	Old Town Transit Center	9	432
19	Fashion Valley Transit Center	928	397
20	12 th / Imperial Transit Center	901	370
21	Fashion Valley Transit Center	6	364
22	11 th / C	20	345
23	Market/ Park	3	340
24	Old Town Transit Center	105	340
25	1 st / Broadway	150	336
26	5 th / C	120	285
27	Broadway/ 5 th	215	283
28	10 th / Broadway	5	276
29	Old Town Transit Center	30	274
30	Fashion Valley Transit Center	20	265
31	Front/ Arbor (UCSD)	3	264
32	4 th / University	3	248
33	Broadway/ Kettner	992	247
34	4 th / Broadway	3	245
35	University/ 5 th	10	244

¹ SANDAG State of the Commute Infobits, p. 6. <https://www.sandag.org/-/media/SANDAG/Documents/PDF/data-and-research/applied-research-and-performance-monitoring/performance-monitoring/infobits-2021-state-of-the-commute-report-2022-05-01.pdf>

² Ridership data derived from System and Service Evaluation (MTS) 2017

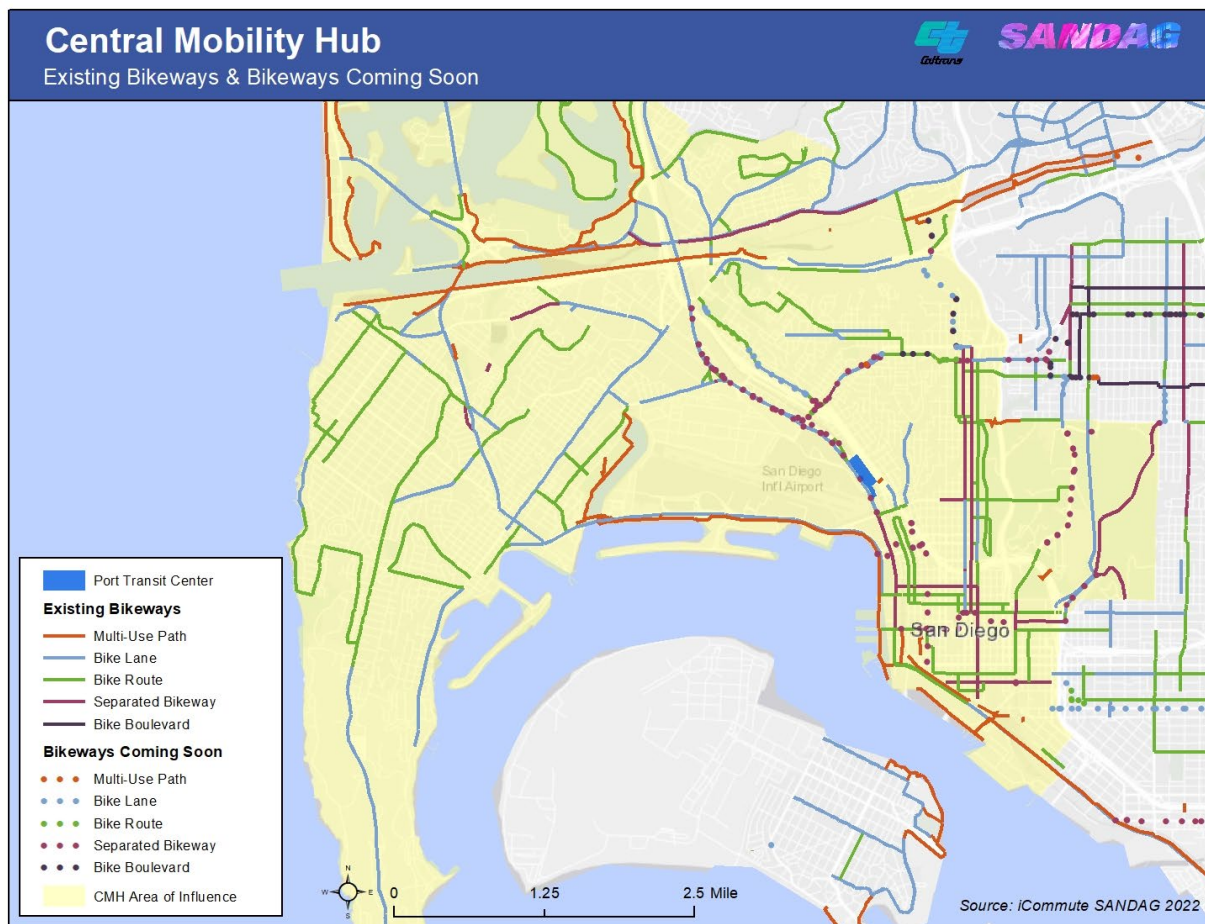
B.5. Active Transportation

Existing active transportation infrastructure supports the ability of pedestrians and cyclists to reach their desired destination. The five main bikeways identified by the SANDAG 2021 Regional Plan include multi-use paths, bike lanes, and bike routes.

- **Multi-use paths (Class I):** provide a completely separated right of way for the exclusive use of bicyclists and pedestrians with minimized opportunity for crossflow traffic.
- **Bike lanes (Class II):** provide a painted striped lane for one-way bike travel on a street or highway.
- **Bike routes (Class III):** provide bicyclist access on a low traffic volume roadway that is shared with motor vehicle traffic. Signage is present on these roadways to indicate a shared roadway.
- **Protected/separated bike lanes (Class IV):** provide a separation between the bike lane and vehicular traffic lanes via grade separation, posts, barriers, or on-street parking
- **Bike boulevards (Class V):** provide bicyclist access on low traffic volume and speed roadways, designed and designated to give bicycle travel priority

Within the CMH and Connections study area, multi-use paths (Class I) exist along N Harbor Drive, I-8, Sea World Drive, and along the Liberty Station Esplanade. Bike lanes (Class II) exist along N Harbor Drive, Rosecrans Street, Barnett Avenue, Sports Arena Boulevard, Pacific Highway, W Washington Street, and parallel to I-8. Bike routes (Class III) exist along Pacific Highway, I-8, Chatsworth Blvd in Point Loma Heights, Presidio Drive in Presidio Park, and in Downtown San Diego. Separated bikeways (Class IV) are located on 4th Avenue, 5th Avenue, 6th Avenue, J Street, Beech Street, along Pacific Highway in Downtown.

Figure B-8: CMH Bike Routes



B.6. Vehicle Miles Traveled (VMT)

Vehicle miles traveled provide context to daily traffic volumes within the study area. California Senate Bill 743 resulted in VMT as the primary metric for determining California Environmental Quality Act (CEQA) transportation impacts across the state and is derived from the volume of vehicles and their respective travel lengths. Use of VMT as the metric to evaluate transportation impacts supports goals of reducing greenhouse gas emissions, development of multimodal transportation networks, and a diversity of land uses.

VMT per resident tracks resident-based VMT trips, where VMT per employee tracks employee-based trips. The regional mean for VMT per resident is 19 miles per day, while the VMT per employee is 27.2 miles per day. The amount of VMT against the regional mean varies throughout the study area, for both residents and employees. VMT per Capita in these areas represent between 80% to 125% of the regional mean. For employee-based VMT shown in Figure 1-18, areas with high VMT against the regional mean are located in the southern portion of Point Loma, SDIA, and portions of Mission Valley. For both resident and employee-based trips stemming from the I-5 corridor, total daily VMT remains between 50% to 85% of the regional mean.

Figure B-9: SB 743 VMT Per Resident by Census Tract (2016)

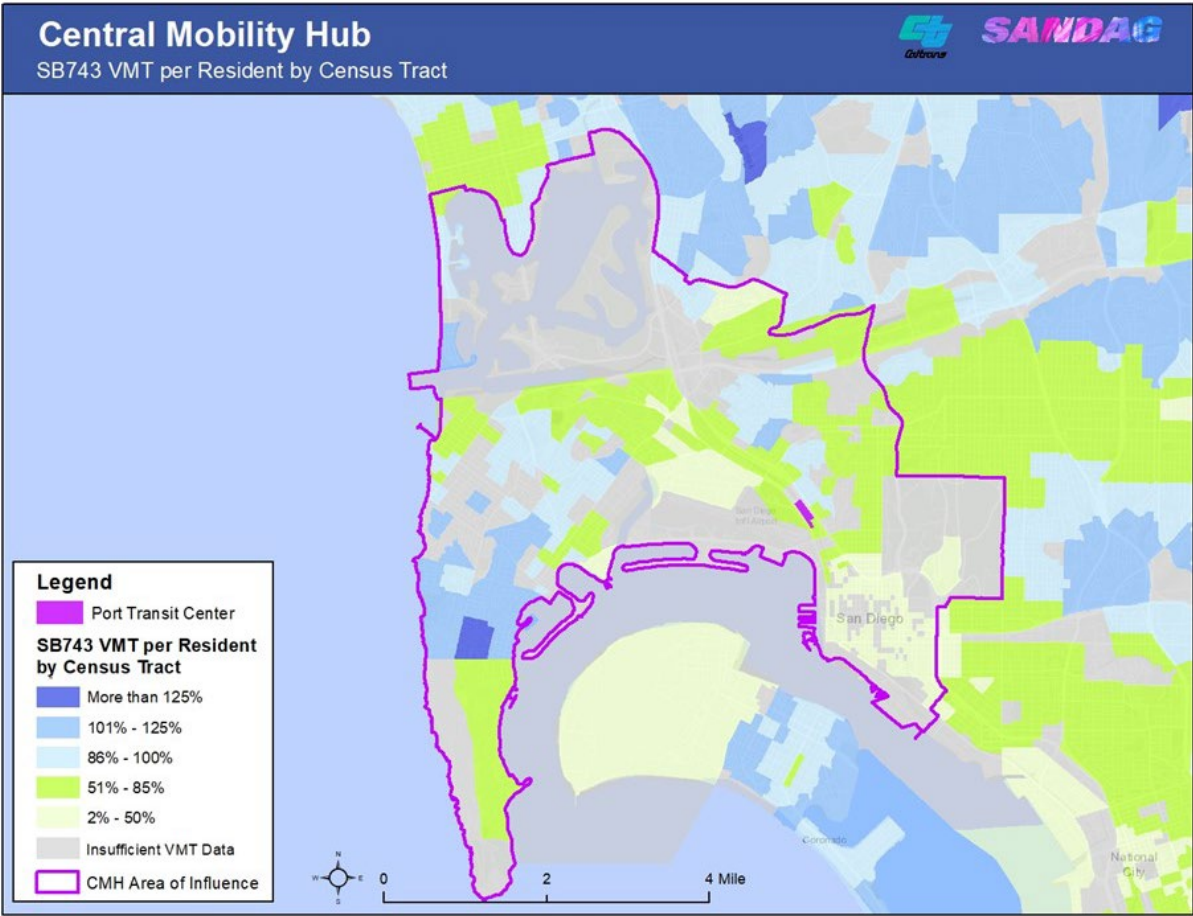
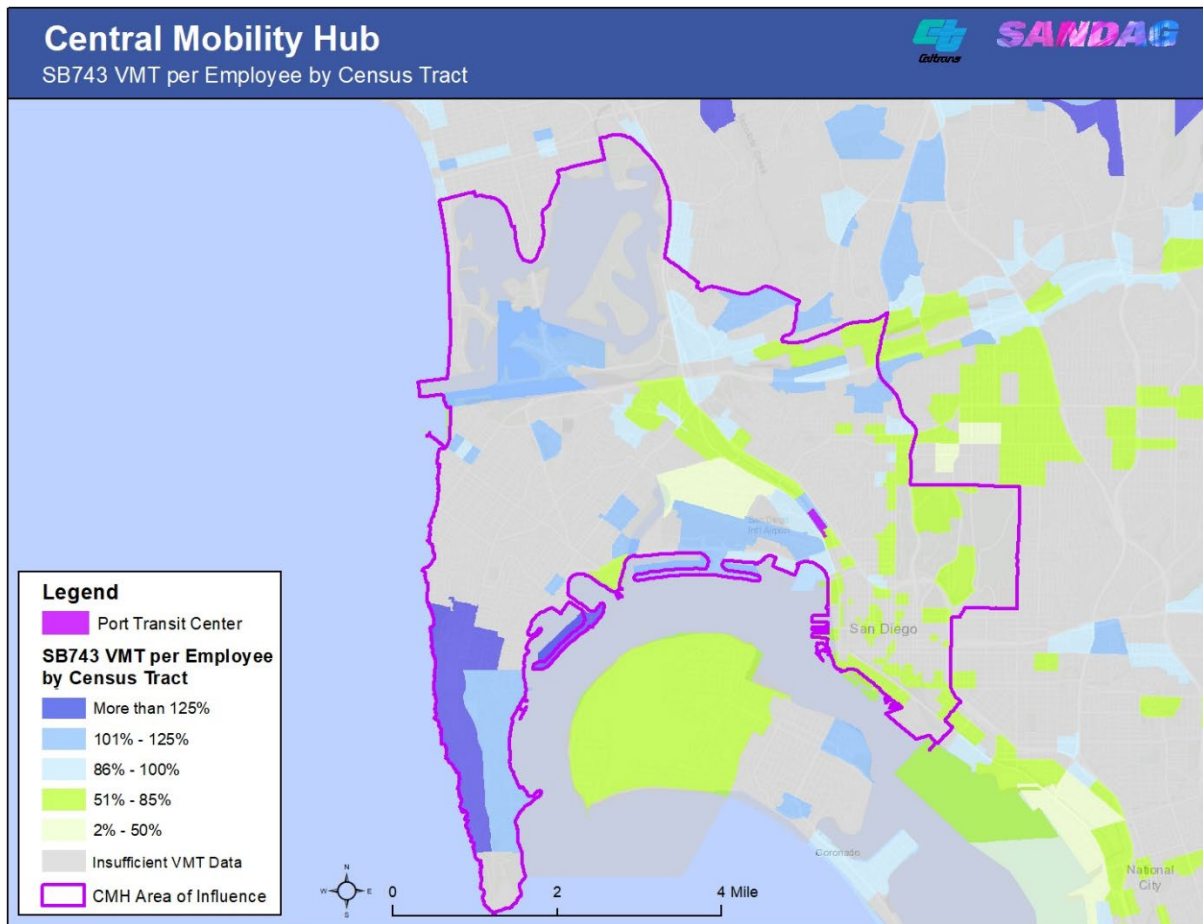


Figure B-10: SB 743 VMT Per Employee by Census Tract (2016)



B.7. Collision Analysis

The safety of all roadway users, particularly for active transportation users is a critical component of this CMCP. Areas with high densities of collisions within the study area include Downtown San Diego, Middletown, and in Point Loma³. More specifically, major corridors including Market Street, Broadway, N Harbor Drive, 6th Avenue, Washington Street, Pacific Highway, Rosecrans Streets, Sports Arena Boulevard, and Point Loma Boulevard reflected high volumes of collisions between pedestrians and vehicles and between bicyclists and vehicles. See below for a heat map of the nearly 380 bicycle-involved collisions and 631 pedestrian-involved collisions within the study area over the 5-year period from 2016 to 2020.⁴

³ Collision data derived from TIMS SWITRS GIS Map on March 3, 2021

⁴ Collision data derived from TIMS SWITRS GIS Map April 2023.

Figure B-11: SWITRS Collision Data

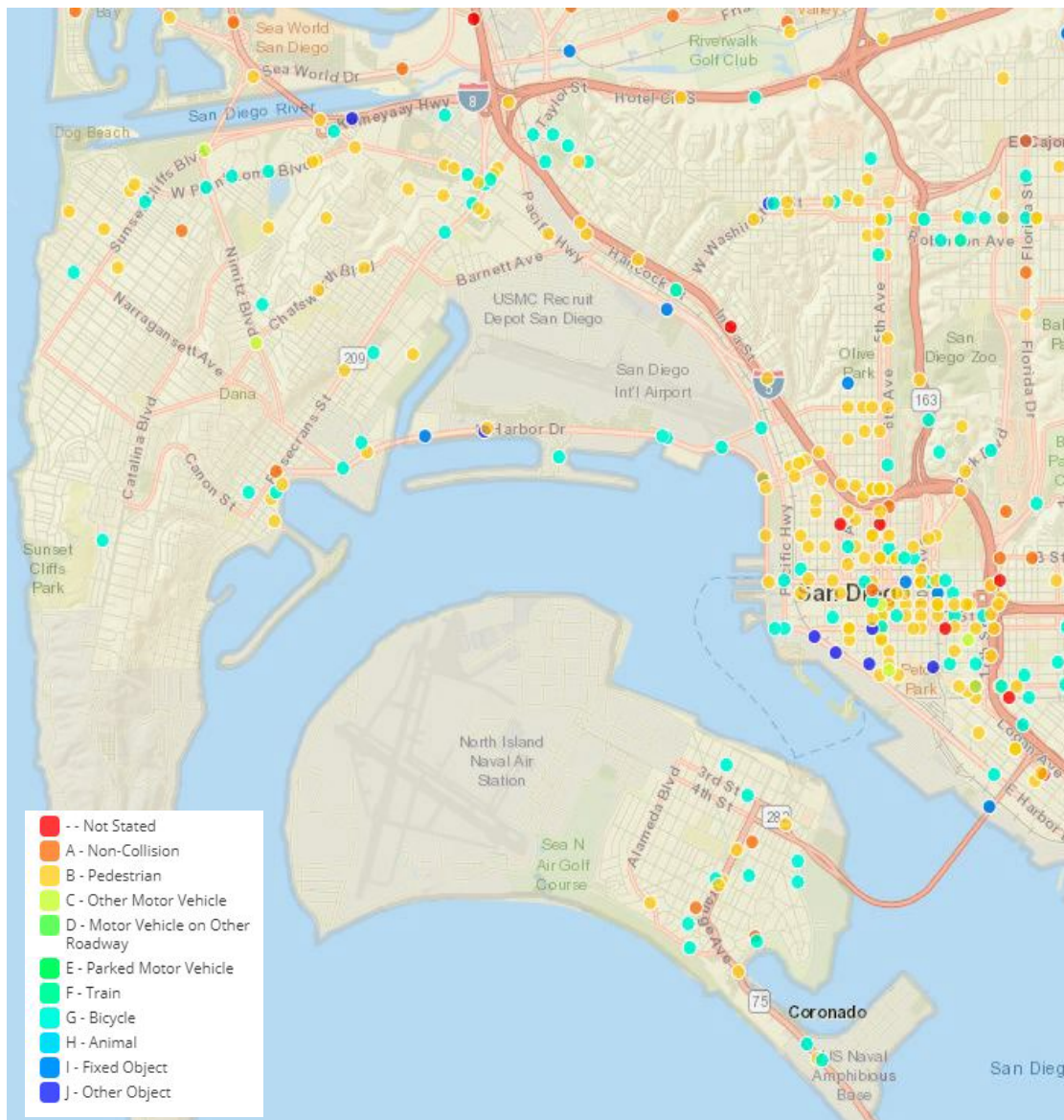
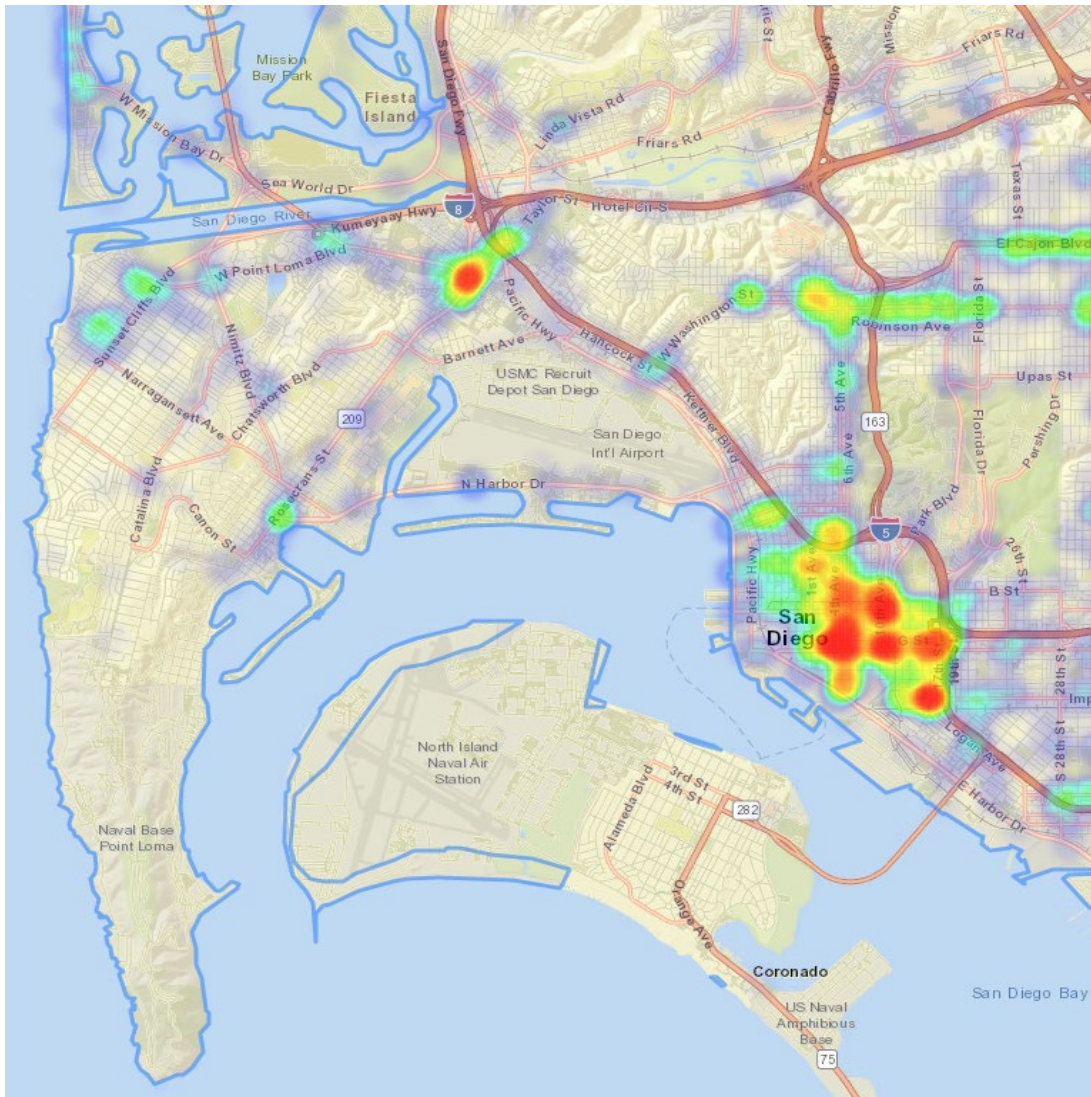


Figure B-12: SWITRS Collision Data



B.8. Goods Movement

The CMH and Connections CMCP study area has several key corridors and points of access for the movement of goods throughout the study area and throughout the entire San Diego region, which includes goods movement from Mexico to the Ports of Los Angeles and Long Beach and beyond. Key corridors for goods movement within the study area include I-5 and I-8 for heavy duty truck transport, and the LOSSAN Rail Corridor for freight travel, as depicted in Figure 2-21. In addition to these key corridors, SDIA and the Port of San Diego are both major hubs for the import and export of goods.

Small last-mile deliveries have been surging within residential areas, especially following the COVID-19 pandemic and stay-at-home ordinances. As a result, local roads are also seeing an uptick in small truck transport. Ensuring the efficient movement of goods for both heavy-duty freight and small-scale deliveries throughout the transportation network is vital to the economic success of the region, as well as to ensuring that traffic impacts are minimized for all other roadway users.

Figure B-13: Goods Movement Network

