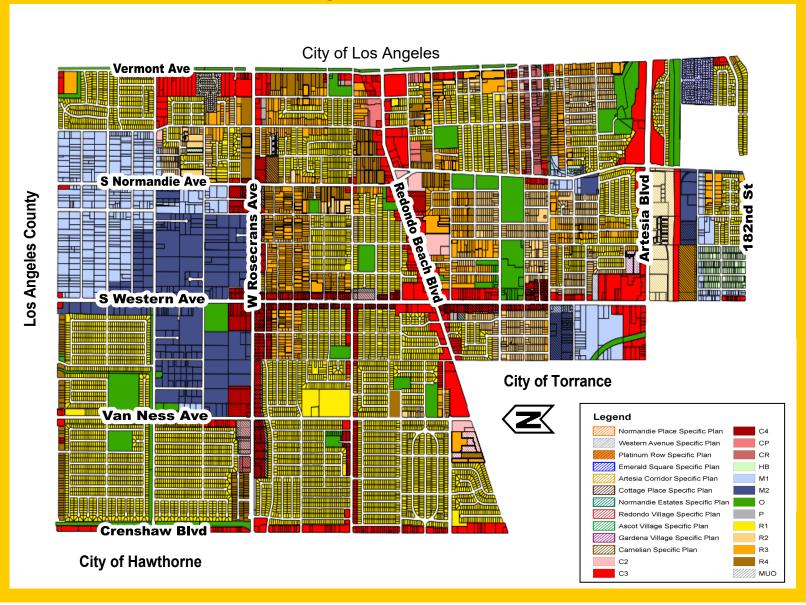
Technical Memorandum (TO#2)

for the

Establishment of Red Curb Zone Policy and Procedures in the

City of Gardena



PREPARED FOR:



CITY OF GARDENA Public Works Department

1700 West 162nd Street, Gardena, CA 90247

CITY OF GARDENA

Police Department 1718 W 162nd St, Gardena, CA 90247



PREPARED BY:



MINAGAR & ASSOCIATES, INC.

Traffic/Civil/Electrical Engineering – ITS – Transportation Planning – CEM 23282 Mill Creek Drive Suite 120 Laguna Hills, CA 92653

Tel: (949)707-1199 Web: www.minagarinc.com





Table of Contents

1.0 - INTRODUCTION	3
1.1 – Executive Summary	
1.2 – Background	
1.2 Buonground	
2.0 – EXISTING APPLICATION PROCEDURES	8
2.1 – Red Curb Viability Assessment	
2.2 – Length of Curb to be Painted	
	4
3.0 – PROPOSED POLICY AND PROCEDURE	
3.1 – Initial Application	
3.2 – Field Evaluation and Data Collection	
3.2.1 – Parking Assessment	15
3.2.2 – Crash Data Analysis	
3.2.3 – Volumetric Vehicle Data Analysis	15
3.3 – Engineering Analysis	15
3.4 – Applicant Notification and Curb Marking Installation	17
4.0 – LITERATURE REVIEW	17
5.0 - CONCLUSION	18
5.1 – Literature Review Conclusion	
5.2 – Policy Development Conclusion	
Appendix	
Appendix A – City of Gardena's Existing Non-Intersection Red Curb Evaluation	
Appendix B – City of Hawthorne's Application for Curb Paintings	
Appendix C – City of Redondo Beach's Application for Curb Paintings	
Appendix D – Synopsis of Researched Documents	O
Appendix E – City of Gardena – Application for Installation or Removal of Painted	Curbs
Appendix F – City of Gardena – Field Evalauation and Data Collection Flow Chart	



1.0 - INTRODUCTION

1.1 – Executive Summary

Apart from regulating City circulation and ensuring no vehicles park in unlawful regions, red curb markings are critical along driveways and intersections for vehicles to maximize their line of sight and safely perform their desired maneuvers.

As part of the City of Gardena's plans to create a set of standardized procedures and policies for the installation/removal of red curb markings, Minagar & Associates, Inc. performed a supplementary literature review and reviewed existing City procedures to recommend to the City the following procedural standards:

- Initial Application The initial application process involves utilizing the existing system
 in Gardena Direct to submit requests to the City regarding Curb marking and removal.
 The application involves providing an approximate location of the curb marking request,
 applicant contact information, and the type of curb marking (e.g. red, blue, yellow, etc.)
 (See Appendix E for the New Application Form)
- 2. Field Evaluation and Data Collection Field evaluation and data collection involves performing initial assessments for the City of Gardena's Traffic Bureau to determine the viability of removing/installing curb markings. Depending on the type of driveway for the request, different thresholds are used. Residential driveways would require the assessment of the number of on-site units, whereas service roads and commercial driveways would assess the number of vehicles using the driveway in a one (1) hour period. However, all three (3) types of driveways require the analysis on the major street daily traffic volumes and crash history attributable to visibility issues. Additionally, additional parking assessments must be performed if necessary and consent must be obtained from adjacent property owners. It should be noted that any one of the following three (3) criteria must be met. The thresholds are summarized below:
 - Fills Property Descriptors, OR
 - o Residential: At least fifty (50) on-site units
 - Commercial/Service Location: At least one hundred (100) vehicles per hour for the driveway of interest
 - The Major Street Segment's average daily traffic volume exceeds fifteen thousand (15,000) vehicles for a two-way street or seven thousand-five hundred (7,500) for a one-way street, OR
 - There are three (3) or more reportable or injury collisions due to violation of CVC 21804(a) or "driver view obstructions" within the preceding twelve (12) months
- 3. Engineering Review If the driveway/intersection passes the initial inspection by the Traffic Bureau, the Public Work's Department of Engineering would perform a line-of-sight analysis and CAMUTCD review. The line-of-sight analysis would determine the length of curb to be marked, beyond the standards set in the CAMUTCD, to maximize the safety of the driveway. The analysis will utilize the 7th Edition of the AASHTO 2018



Policy on Geometric Design of Highway and Street and Fundamentals of Traffic Engineering Handbook. The CAMUTCD sets the standard minimums for applicable curb locations if the results of the sight triangle indicate a length below the CAMUTCD standards.

4. Notification and Curb Marking Installation – Once the Engineering analysis has been performed and the curb is determined to be viable for a curb marking extension/removal, the results of the analysis will be submitted to the Chief of Police to be approved, via the Chain of Command. Once approval has been obtained, the applicant and Public Works Engineering will be notified of the results, and a work order for the curb marking installation/removal will be submitted by Public Works Engineering to Street Maintenance.

1.2 - Background

The City of Gardena requested that Minagar & Associates, Inc. study the existing application processes and standards for curb designations set by cities neighboring the City of Gardena, to assess and revise current policy within the City of Gardena. A simplified zoning map defining the regions of interest is shown in **Figure 1** following the Background section.

According the Gardena Municipal Code Section 10.28.189 Curb Markings, existing curb designations used within the City of Gardena include the following:

"The traffic authority is authorized, subject to the provisions and limitations of this chapter, to place, or cause to be placed, and when required shall place, or cause to be placed, the following curb markings to indicate parking or standing regulations, and such curb markings shall have the meanings set forth in this section:

- A. Red means no stopping, standing, or parking at any time, except as permitted by the Vehicle Code of the state and except that a bus may stop in a red zone marked or signed as a bus zone.
- B. Yellow means no stopping, standing, or parking at any time between seven (7) a.m. and six (6) p.m. of any day, except Sundays and holidays, for any purpose other than the loading or unloading of passengers or materials; provided, however, the loading or unloading of passengers shall not consume more than three minutes, and the loading or unloading of materials shall not consume more than twenty minutes.
- C. White means no stopping, standing, or parking for any purpose other than loading or unloading passengers, or for the purpose of depositing mail in an adjacent mail box, which time shall not exceed three minutes. Such restrictions shall apply between seven (7) a.m. and six (6) p.m. of any day, except Sundays and holidays, and except as follows:
 - 1. When such zone is in front of a hotel or in front of a mail box, the restrictions shall apply at all times; and
 - 2. When such zone is in front of a theater, the restrictions shall apply at all times, except when such theater is closed.



- D. Green means no standing or parking for longer than twenty minutes at any time between seven a.m. and six p.m. of any day, except Sundays and holidays.
- E. Blue means no stopping, standing, or parking by any person other than a handicapped person whose vehicle displays a distinguishing license plate or a placard issued pursuant to Sections 22511.5 or 9105 of the Vehicle Code of the state.
- F. When the traffic authority has caused curb markings to be placed, no person shall stop, stand, or park a vehicle adjacent to any such legible curb marking in violation of any provision of this section. (Prior code § 3-5.1015) "

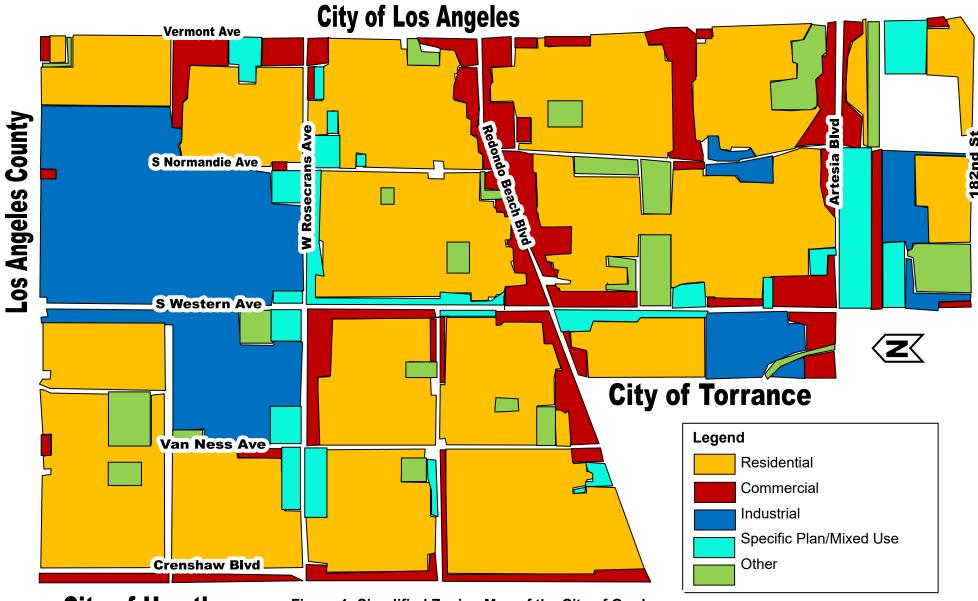
The City of Gardena is a city located in the South Bay region of Los Angeles County, which is bordered by the cities of Torrance, Lawndale, Hawthorne, City of Los Angeles, Carson, Compton, and Redondo Beach. From the Circulation Element of the City's 2006 General Plan, the following are arterials or freeways within the City of Gardena:

- Gardena (91) Freeway
- El Segundo Boulevard
- Rosecrans Avenue
- Redondo Beach Boulevard

- Artesia Boulevard
- Crenshaw Boulevard
- Western Avenue
- Vermont Avenue

The City's roadway network map is provided in Figure 2.





City of Hawthorne

Figure 1: Simplified Zoning Map of the City of Gardena





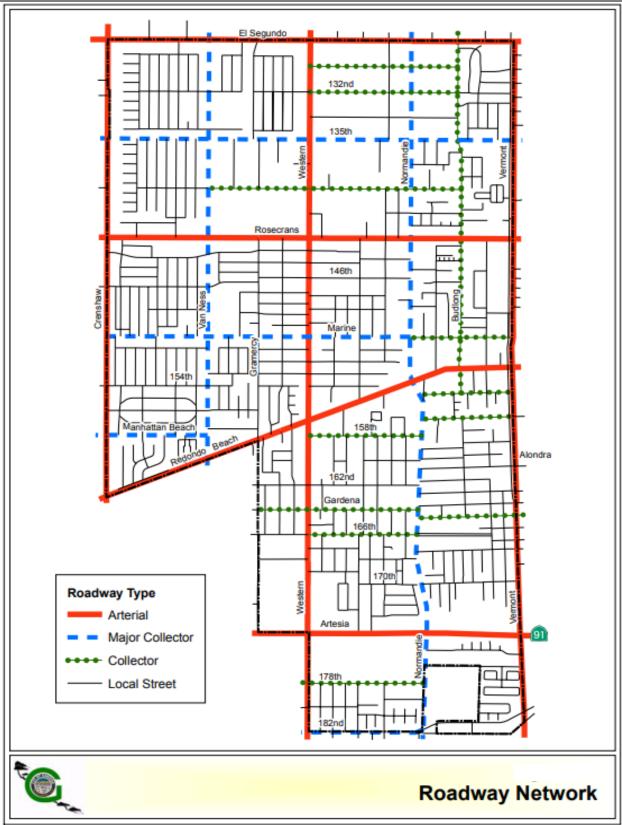


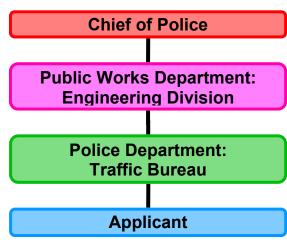
Figure 2: Roadway Network Map of the City of Gardena



2.0 - EXISTING APPLICATION PROCEDURES

Within the City of Gardena, the existing application procedure for a red curb painting request involves various City departments. The applicant would initially submit a request to the Police Department's Traffic Bureau, detailing the location and a description of the issue.

The City of Gardena's Traffic Bureau would then perform an investigation of the request location and submit the findings to the Engineering Division of the Public Works Department, if it is found viable, to determine the length of the curb to be painted per City and State Standards.



Application Communication Diagram

Once the investigation has concluded, the findings and recommendations from the Engineering Division of the Public Works Department is to be sent to the Chief of Police via the Chain of Command to be approved. When approved, the applicant and Engineering Division will be notified, and the work order for the curb location will be submitted by the Engineering Division.

2.1 - Red Curb Viability Assessment

As mentioned previously, the applicant will initially submit a Red Curb Evaluation Application form to the City of Gardena's Gardena Direct to perform a preliminary analysis to determine whether the location qualifies for the red curb requested. The form itself includes information regarding the Applicant's name, contact information, the address of the request location, and description of the issue.

The Traffic Bureau then assesses the location type to determine whether the request location is for an intersection or for a driveway. For red curb requests for intersections, the standards are predominantly determined by the latest California Manual on uniform Traffic Control Devices (CAMUTCD), 2014 5th revision published March 27, 2020. Otherwise, the Traffic Bureau will perform a preliminary assessment using thresholds based on the location's crash history, vehicle volume data, and site/driveway data to determine whether to the curb location is viable for curb marking extension/removal.

For the non-intersection locations the Traffic Bureau's thresholds are dependent on the location type, therefore the request locations would first be classified as either Residential, Commercial, or Service. The Traffic Bureau would then investigate the Crossroads Collision Database Analytics Module for collision data at the request location. Any collisions determined to have been caused by violation of the California Vehicle Code (CVC) section 21804(a) or due to "driver view obstructions" are noted by the Bureau on the report. The relevant section of the CVC states the following:



- "(a) The driver of any vehicle about to enter or cross a highway from any public or private property, or from an alley, shall yield the right-of-way to all traffic, as defined in Section 620, approaching on the highway close enough to constitute an immediate hazard, and shall continue to yield the right-of-way to that traffic until he or she can proceed with reasonable safety.
- (b) A driver having yielded as prescribed in subdivision (a) may proceed to enter or cross the highway, and the drivers of all other vehicles approaching on the highway shall yield the right-of-way to the vehicle entering or crossing the intersection."

The Traffic Bureau then performs an assessment on the daily traffic volume of the street segment with which the driveway or lane merges. This data can be obtained from the City of Gardena's latest Traffic Count data map at https://www.cityofgardena.org/traffic-counts/ or at the Public Works Engineering office. Use latest report (conducted every 3 yrs).

As of this report, the latest data published is from 2018, therefore a growth factor of 0.259% would be applied to project the data to the existing year (e.g. (1+0.00259) # of years). The map is also shown in **Figure 3** on the following page. This factor is based off of Los Angeles County's 2010 Congestion Management Program (CMP) for the South Bay/LAX region for 2010-2035. Factors to be used for future years are detailed in **Table 1** below.

Table 1: South Bay/LAX General Traffic Volume Growth Factors

City/Dlago		Gene	eral Traffic Vo	lume Growth	Factors	
City/Place	2010	2015	2020	2025	2030	2035
South Bay/LAX	1.000	1.013	1.026	1.035	1.044	1.053

Additionally, the Traffic Bureau performs an on-site inspection to determine the number of onsite units for residential and commercial properties, or performs a 1-hour vehicle volume survey for service locations.

The thresholds which would be compared to the data gathered from the aforementioned methodology consists of the following criteria in which any one must be met:

- Three (3) or more reportable or injury collisions due to violation of CVC 21804(a) or "driver view obstructions" within the preceding twelve (12) months, AND
- The major street segment for the request location has a daily traffic volume exceeding fifteen thousand (15,000) vehicles per day for a two-way street or seven thousand-five hundred (7,500) vehicles per day for a one-way street, AND
- The location has at least fifty (50) onsite units for residential and commercial properties or has a driveway volume of at least one hundred (100) vehicles per hour for service locations.

Based on this analysis the Traffic Bureau would determine whether the location request is applicable to have additional red curb markings. If viable, the Bureau would submit the location information to the Public Works Engineering Division to determine the length of curb to be marked per *The Fundamentals of Traffic Engineering Handbook* and/or *CAMUTCD*.

The existing viability assessment report is provided in **Appendix A**.



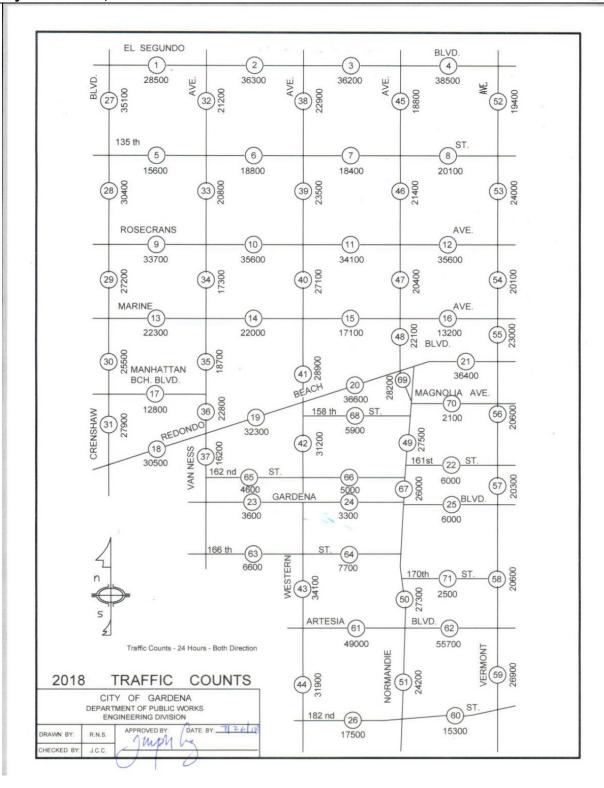


Figure 3: City of Gardena's 2018 Average Daily Traffic Counts (ADTs are updated every 3 years)



2.2 - Length of Curb to be Painted

The City of Gardena bases the Red Curb lengths to be painted using methodologies based upon *The Fundamentals of Traffic Engineering Handbook* and/or *CAMUTCD*.

The Fundamentals of Traffic Engineering Handbook:

For "typical" intersections/driveways

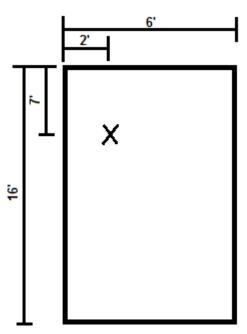
1. Determine the sight distance for the major street vehicle based off of the street segment's speed limit from **Table 2**.

Table 2: Summary of Approach Speed and Respective Sight Distance

Approach Speed/Speed Limit (miles per hour)	Sight Distance (feet)
55	420
50	360
45	300
40	245
35	200
30	155
25	120
20	90
15	60
10	40

Source: The Fundamentals of Traffic Engineering Handbook

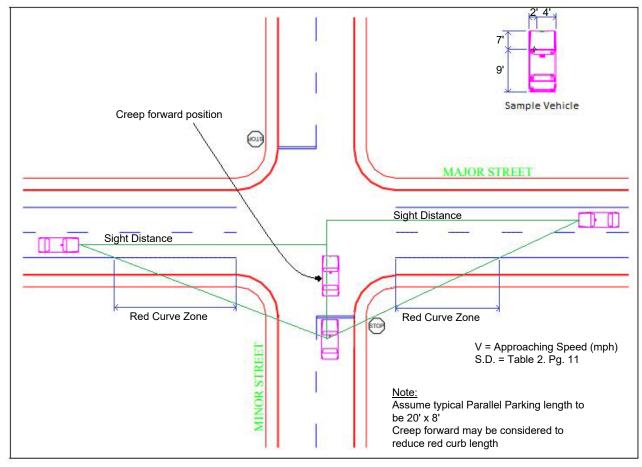
- Determine the geometry of the location of interest and whether on-street parking is permitted. If so, assume a parking space lateral width of eight (8) feet.
- 3. Create the Sight Triangle for the intersection utilizing the Sight Distance obtained from **Table 2.** The location of the minor street/driveway vehicle driver to be used for the sight triangle is dependent upon the vehicle model used to generate the sight triangle. A sample driver location for a 2017 Toyota Camry is provided in to the right.



Sample Vehicle Driver Position



A typical intersection sight triangle is provided in Figure 4.



Source: City of San Mateo Curb Marking Policy and Procedures

Figure 4: Sample Sight Triangle for a Major and Minor Street Intersection

- 4. Determine any obstacles within the sight triangle (e.g. on-street parking) to determine the length of the Red Curb Marking to ensure there are no future obstacles within the sight triangle.
- 5. Determine the location of the obstacle and set restrictions for obstacles within the line-of-sight of the minor street/driveway vehicle

More complex intersections are to be evaluated on a case-by-case basis.

California Manual on Uniform Traffic Control Devices:

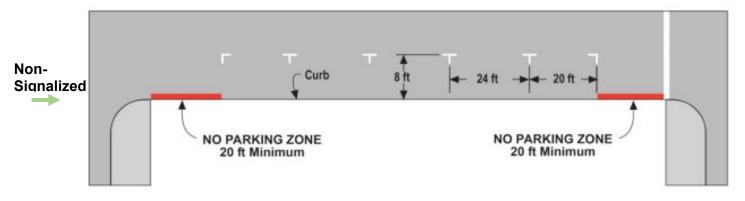
The CAMUTCD uses standardized distances from the intersection's marked or unmarked crosswalk to the nearest parking zone.

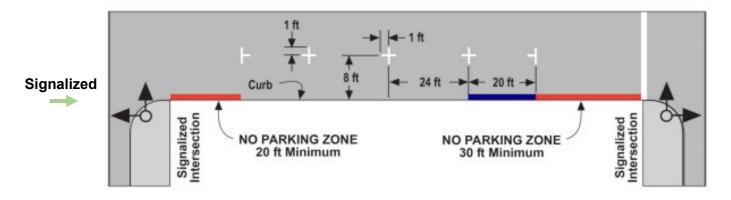
"At all intersections, one stall length on each side measured from the crosswalk or end of curb return should have parking prohibited. A clearance of 6 feet measured from the curb return should be provided at alleys and driveways

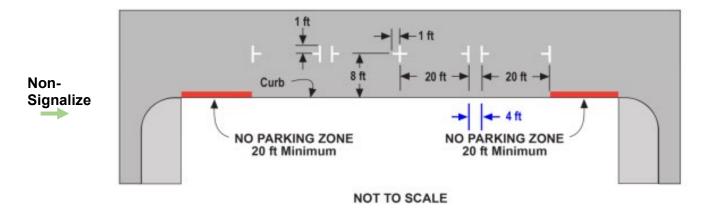
At signalized intersections parking should be prohibited for a minimum of 30 feet on the near side of one stall length on the far side"



Examples of NO PARKING zones from CAMUTCD is provided in Figure 5.







NOTES:

- 1. For Parking Stalls along the left side curb on one-way streets, markings may be placed on the curb delineating the ends of the individual stalls.
- 2. All stall markings are made with 4 in wide white lines. The shape is optional.
- 3. The parking stall cross line, 8 ft from the curb, may be continuous longitudinally.

Source: 2014 CAMUTCD, Rev. 5, Part 3: Markings

Figure 5: CAMUTCD Examples of NO PARKING Zones





Of the two methodologies, CAMUTCD and *Fundamentals of Traffic Engineering Handbook*, the longer curb length is to be used as the length to be painted at the request location.

3.0 - PROPOSED POLICY AND PROCEDURE

3.1 – Initial Application

Through the existing Gardena Direct system, it can obtain an approximate location of the request, the applicant's contact information, and the type of curb. However, as the description input box is optional, it requires the City to contact the applicant if it is not used to describe the curb location. If the description box is denoted as required, it will alleviate the amount of time spent by the City to obtain more information about the curb request from the applicant. (Refer to Appendix E)

3.2 - Field Evaluation and Data Collection

Once the request is received, a field evaluation will be performed by the Traffic Bureau to assess the existing conditions of the requested location. For non-intersection reports, inspected items may include, but are not limited to the following:

- Existing red curb markings
- Parking utilization
- Number of dwelling or commercial units
- Number of vehicles utilizing the minor street or driveway in the period of one (1) hour

As accounting for the number of units for commercial properties does not account for the customers accessing the commercial units, the study would encompass all driveway users if it were to assess the one (1) hour vehicular volume using the driveway, similar to service locations. The proposed threshold for this survey would remain at the existing level of at least one hundred (100) vehicles per hour in order to be eligible.

Additionally, by using the existing standard setting a threshold at fifty (50) residential/commercial units for the driveway, it excludes private driveways of detached homes or single commercial properties where driveway red tipping is desired. "Red tipping" is defined as a specialized red zone installed at driveways to be installed on either side of a driveway to promote maneuverability and visibility, as well as eliminate non-standard parking spaces (less than eighteen feet).

Red tipping would be critical for locations where there are high volumes of on-street parking for long periods of times, which would inhibit the vehicles using the affected driveway. For these scenarios, exceptions should be provided where the unit requirement cannot be filled.

Additionally, in the event that the red curb length to be painted/removed is determined to potentially affect adjacent properties, a notice must be provided for their information and consent to have the curb marked/unmarked.



3.2.1 - Parking Assessment

In addition to assessing the viable length of the red curb, for areas where there are high amounts of on-street parking, a parking study may be required to assess the impact of parked cars in nearby areas if the curb were to be painted.

The parking assessment would involve analyzing the existing amount of cars parked within the determined area of influence, as well as scenario with the painted curb. If it is determined that the decreased amount of parking spaces due to the painting of the red curb would negatively affect the circulation and overall parking, the viability of painting the red curb would need to be reassessed.

3.2.2 - Crash Data Analysis

Crash data analysis will utilize the existing City thresholds where the historic crash data for the past twelve (12) months at the requested intersection is investigated to determine if there are at least three (3) crashes reported at the location caused by visibility issues that would be corrected by the painting of a red curb.

3.2.3 - Volumetric Vehicle Data Analysis

In regards to the volumetric vehicle data analysis, the City is to remain with existing policy to ensure the curb location has a daily vehicular volume exceed fifteen thousand (15,000) vehicles for a two-way street or seven thousand-five hundred (7,500) vehicles for a one-way street. As of this report the most current traffic counts for the segment, unless a more recent daily traffic count study is performed, the growth factor taken from the Los Angeles Count's Congestion Management Plan would be used to project the traffic counts to the existing year.

Additionally, this threshold is likely to exclude locations within neighborhoods and local streets. Therefore, due to this issue and limited applicability of the unit thresholds, it is recommended that AT LEAST ONE of the aforementioned thresholds are filled to be determined viable for curb marking installation/removal.

3.3 - Engineering Analysis

As a preliminary screening measure the curb will be assessed to determine whether the existing curb length exceeds/is shorter than the predefined standards set in the California Manual on Uniform Traffic Control Devices.

Exceeds the CAMUTCD: In the scenario that the existing red painted curb length exceeds the CAMUTCD and the applicant wishes to remove excess curb length to have more parking space, an analysis using a sight triangle for the location would be used. However, if it is determined that the curb length to be removed using the sight triangle would have the curb fail to reach the CAMUTCD standards, the CAMUTCD curb length minimum would be maintained.



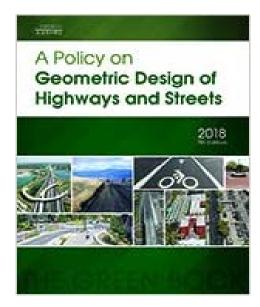
Similarly, if the applicant wishes to extend the curb length painted red due to safety issues, an analysis utilizing a sight triangle would also be performed.

<u>Is shorter than the CAMUTCD:</u> In the scenario that the currently marked red curb is shorter than the CAMUTCD standards and the applicant wishes to shorten the marked red curb length, unless an exception is made for the specified location, the location would not qualify for removal of the marked curb length, but rather an extension.

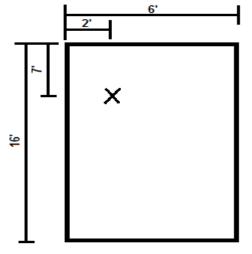
In the alternative scenario where the applicant is requesting an extension to the marked curb length, the engineer would perform an analysis for the length of red curb length to be added. In this case, if the curb length from the sight triangle analysis is shorter than the CAMUTCD, the standard length from the CAMUTCD would be used.

<u>Line-of-Sight Analysis:</u> The performance of a sight triangle analysis will continue to utilize the existing basic methodology, however to have consistent results in regards to curb length analyses, standards to be utilized by the Engineering Division of the City of Gardena must be specified.

As per the 2018 or the latest American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highway and Streets, the location of the driver on the minor street/driveway is assumed to be 14.5 feet from the edge of the major road traveled way. In the case that the shoulder stripe is unmarked, a typical lane width of twelve (12) feet is assumed. Therefore, the minor street vehicle's driver position would be 26.5 feet back from the street segment center line for street segments with two (2) lanes (one lane per direction of travel) or 26.5 feet back from the nearest white lane marking, which separates lanes going in the same direction of travel. In the case that it is more practical to use a distance greater than 14.5 feet for the distance of the driver/decision point location from the edge of the major road traveled way, the value can range from 14.5 feet to 18 feet. This is depicted below right.



Sample Vehicle Driver Position





A basic outline of the sight triangle procedure is detailed below:

- 1) Produce a general outline of the minor street/driveway geometry at the major road with adjacent driveways or obstacles such as on-street parking (assumed to have 8 feet lateral width per CAMUTCD standards)
- 2) Determine the location of the minor street approach vehicle's decision point as described by the AASHTO field observations
- 3) Using the *Fundamentals of Traffic Engineering Handbook*, determine the sight distance between the major and minor street vehicles using the speed limit of the major street
- 4) Utilizing the previously gathered information, determine the location of the major street vehicle
- 5) Create a sight triangle from the minor street approach car to the major street approach car and determine obstacles and their respective location(s) within the sight triangle

3.4 – Applicant Notification and Curb Marking Installation

Once the curb location has:

- 1) Determined to be eligible for curb marking/removal
- 2) Notified and obtained consent from adjacent properties (if applicable)
- 3) Performed Supplementary Studies (if applicable)
- 4) Performed CAMUTCD and/or Fundamentals of Engineering analysis

The City may notify the applicant of the results of the analysis and the curb length to be marked/removed, if any. With the notification of the applicant, a memorandum packet containing the findings and recommendations of the analysis will be submitted to the Chief of Police, via the Chain of Command to approve of the curb marking/removal. If approved, the applicant and the Public Work's Department of Engineering will be notified. Afterwards, the Department of Engineering will provide Street Maintenance with guidelines on the red curb painting.

4.0 – LITERATURE REVIEW

This report summarizes the literature review and historical data collection effort conducted as part of the 2020 Red Curb Policy and Standards Study. Minagar & Associates, Inc. has identified, collected and reviewed over 16 documents and webpages related to red curb zones, ramps, inspections, and other curb marking standards set for the cities neighboring the City of Gardena. Listed below in are municipal code sections for curb standards and policies that were identified and summarized as part of this literature review/research effort:

- 1. City of Gardena Municipal Code, Section 10.28.120, 10.28.140 and 10.28.170, February 12, 2020
- 2. City of Hawthorne Municipal Code, Section 10.36.130, 10.36.140, 10.44.010, and 10.44.060, January 2020
- **3. City of Torrance Municipal Code, Section 61.6.1, 61.6.12, and 61.6.21,** December 17, 2019
- 4. City of Lawndale Municipal Code, No Applicable Sections, September, 2019



- City of Los Angeles Municipal Code, Section 80.55, 80.56, and 80.57, December 31, 2019
- **6. City of Carson Municipal Code, Section 3251.3, 3251.4, and 3203**, September 3, 2019
- 7. City of Colton Municipal Code, Section 9.3, 9.9, 9.10, 11.-, December 20, 2019
- 8. City of Redondo Beach Municipal Code, 3-7.1204, 3-7.1205, March 2020

Also included is the review of the curb painting application processes for each neighboring city. An official application process for curb markings were limited to the Cities of Gardena, Los Angeles, Hawthorne, Redondo Beach, and Torrance. For the Cities of Carson, Colton, and Lawndale, the traffic authorities responsible for curb zoning would be contacted. A synopsis of the researched documents is provided in Appendix D.

5.0 - CONCLUSION

5.1 - Literature Review Conclusion

After reviewing all of the above literature sources and based on existing available information, the following conclusions pertaining to the Red Curb Zone Policies and Standards Study for the City of Gardena have been drawn:

- In regards to no parking/red curb zones in narrow streets, the standards set by the City
 of Gardena agree with the neighboring cities of Hawthorne and Colton, and vary from
 the policies set by Torrance and Redondo Beach.
- There is a numerical variance between the standards set for general red curb/no parking policy. Specifically in the distance allowed for approaches to intersections, traffic controls, and crosswalks.
- The Standards set for loading zones within the City of Gardena agrees with the majority of its neighboring cities.
- The City of Gardena Municipal Code currently does not have a section establishing authority for marking blue curb zones, unlike other neighboring cities.
- Two of the neighboring cities, City of Los Angeles and the City of Torrance, currently use an online application system for parking, whereas the City of Hawthorne and the City of Redondo Beach require applications to submit a hard copy or contact their traffic authority.

5.2 – Policy Development Conclusion

Apart from regulating City circulation and ensuring no vehicles park in unlawful regions, red curb markings are critical along driveways and intersections for vehicles to maximize their line of sight and safely perform their desired maneuvers.



As part of the City of Gardena's plans to create a set of standardized procedures and policies for the installation/removal of red curb markings, Minagar & Associates, Inc. recommends the City to utilize the following procedural standards:

- 1. **Initial Application –** The initial application process involves utilizing the existing system in Gardena Direct to submit requests to the City regarding Curb marking and removal. The application involves providing an approximate location of the curb marking request, applicant contact information, and the type of curb marking (e.g. red, blue, yellow, etc.)
- 2. Field Evaluation and Data Collection Field evaluation and data collection involves performing initial assessments for the City of Gardena's Traffic Bureau to determine the viability of removing/installing curb markings. Depending on the type of driveway for the request, different thresholds are used. Residential driveways require the assessment of the number of on-site units, whereas service roads and commercial driveways would assess the number of vehicles using the driveway in a one (1) hour period. However, all three (3) types of driveways require the analysis on the major street daily traffic volumes and crash history attributable to visibility issues. Additionally, if necessary additional parking assessments must be performed and consent must be obtained from adjacent property owners. The thresholds are summarized below:
 - Fills Property Descriptors, OR
 - o Residential: At least fifty (50) on-site units
 - Commercial/Service Location: At least one hundred (100) vehicles per hour for the driveway of interest
 - The Major Street Segment's daily traffic volume exceeds fifteen thousand (15,000) vehicles for a two-way street or seven thousand-five hundred (7,500) for a one-way street, OR
 - There are three (3) or more reportable or injury collisions due to violation of CVC 21804(a) or "driver view obstructions" within the preceding twelve (12) months
- 3. Engineering Review If the driveway/intersection passes the initial inspection by the Traffic Bureau, the Public Work's Department of Engineering would perform a line-of-sight analysis and CAMUTCD review. The line-of-sight analysis would determine the length of curb to be marked, beyond the standards set in the CAMUTCD, to maximize the safety of the driveway. The analysis will utilize the AASHTO 2018 Policy on Geometric Design of Highway and Street and Fundamentals of Traffic Engineering Handbook. The CAMUTCD sets the standard minimums for applicable curb locations if the results of the sight triangle indicate a length below the CAMUTCD standards.
- 4. Notification and Curb Marking Installation Once the Engineering analysis has been performed and the curb is determined to be viable for a curb marking extension/removal, the results of the analysis will be submitted to the Chief of Police to be approved through the Chain of Command. Once approval has been obtained, the applicant and the Public Work's Department of Engineering will be notified of the results, and a work order for the curb marking installation/removal will be submitted by the Department of Engineering to Street Maintenance.



APPENDIX A

City of Gardena's Existing Non-Intersection Red Curb Evaluation

Non-Intersection Line-of-sight Red Curb Evaluations

This evaluation criteria is only used for non-intersection locations. Red curbs at intersections must be installed in accordance with standards in the Manual of Uniform Traffic Control Devices. For all other line-of-sight red curb evaluations, use this form. Three criteria have been procedurally adopted to assist in evaluating these additional requests. Installation may be warranted based on the existence all three of the following:

- A history of 3 or more reportable or injury collisions caused by violations of CVC 21804(a) or "driver view obstructions" within the preceding 12 months at the location, and
- 2. On streets with a daily volume of not less than 15,0000 vehicles per day, and
- At residential or commercial properties with 50 or more onsite units, or at locations with a driveway volume of at least 100 vehicles per hour

Traffic Authority

All recommendations are provided as a guideline, subject to the discretion of The Chief of Police.

Procedures

- Contact the requestor and obtain the information listed on this form.
- 2. Search the Crossroads Collision Database Analytics Module for collision data related to the location.
- Obtain traffic counts from the City of Gardena Website https://www.cityofgardena.org/traffic-counts/
- 4. Conduct an onsite inspection
 - For service locations, count the volume of vehicles utilizing the driveway in a 1hour period.
- If installation is warranted, contact the Public Works Engineering Department to obtain a recommendation of installation length in accordance with The Fundamentals of Traffic Engineering Handbook or the MUTCD, whichever is longer
- Submit a memo packet containing all information, Public Works Engineering sketches, and a recommendation to the Chief of Police, via the Chain of Command

GARDENA POLICE DEPARTMENT Non-Intersection Red Curb Evaluation

Requestor Contact Number Location Address					
<u>Description</u>					
		10-10-10-10-10-10-10-10-10-10-10-10-10-1			
			-		
Location Type: Reside	ential □	Comr	nercial 🗆	Service	
Number of Qualifying Co in the Past 12-Months	ollisions				
Daily Traffic Volume on adjacent Roadway					
Number of Units or					
1-hour Driveway Volume					



APPENDIX B

City of Hawthorne Application for Curb Paintings

APPLICATION FOR PAINTED CURBS

CITY OF HAWTHORNE PUBLIC WORKS – ENGINEERING DIVISION 4455 WEST 126TH STREET HAWTHORNE, CA 90250 310-349-2980

Is this application for repainting an	existing parking zone?	YES	NO	
THE UNDERSIGNED HEREBY M	MAKES APPLICATION	N FOR		
TO BE PAINTED AT THE FOLLO	OWING ADDRESS:			TYPE OF PARKING ZONE)
REASON FOR REQUEST:				
NAME OF OWNER OR COMPANY	REPRESENTIVE		NAME OF BU	USINESS
ADDRESS		TELEPHON	NE NUMBER	EXT.
SIGNATURE		DATE		
DEPOSIT REQUIRED @ \$8.00 PI	ER FOOT (MINII	MUM CHARGI	E \$25.00)	\$
Please complete the sketch below si				
dimensions; the beginning and the	end of the painted curb is		`	
dimensions; the beginning and the e	end of the painted curb i		,	<u> </u>
dimensions; the beginning and the e			,	
dimensions; the beginning and the e	YOUR LO		,	OPERTY LINES
======================================			,	OPERTY LINES
======================================	YOUR LO)T 	PR	
======================================	YOUR LO)T 	PR	
======================================	YOUR LO)T 	PR	
======================================	YOUR LO	OT 	PR	
Sidewalk STREET FIELD CHECK BY	YOUR LO	OT 	PR	
Sidewalk STREET FIELD CHECK BY APPROVED BY	YOUR LO	DAT	PR	
Sidewalk STREET FIELD CHECK BY APPROVED BY CITIZEN NOTIFIED BY	YOUR LO YOUR LO OFFICE USE NAME	DAT	PR	
======================================	YOUR LO	DAT	PR	



APPENDIX C

City of Redondo Beach Application for Curb Paintings

CITY OF REDONDO BEACH TRAFFIC ENGINEERING DIVISION POLICY

REQUEST FOR RED CURBS AT PRIVATE DRIVEWAYS:

- The resident must contact, via mail, phone, or email, the Transportation Engineer requesting the painting of red curb about either side of the driveway. Any resident in a multi-unit residence must also obtain written authorization from the other residents in the complex. The authorization letter may be produced by the requester for the red curb.
- 2. The minimum red curb allowed shall be no less than 3 feet in length unless physically unable to meet the 3 feet requirement. Red curb shall be painted from 'bottom' of driveway approach.
- 3. Engineering Services shall conduct a field review and obtain necessary dimensions of the driveway and adjacent curb related features. This portion of the process may take 2 to 4 weeks.
- 4. Engineering Services will issue a work order to the Department of Public Works if the red curb is approved. This portion of the process may take 6 to 8 weeks.
- 5. Any additional length of red curb, not to exceed 3 additional feet, beyond the initial 3 feet will require the written authorization of the adjacent neighbor; that is the neighbor on same side as additional extended red curb. Corner residences will be requested to obtain authorization of the adjacent neighbor, regardless of which side driveway red is extended. Additional length of red curb allowed will not exceed 6 feet on either side of driveway. If the neighbor lives in a multi-unit complex, a representative of each unit must sign the authorization.
- 6. Any red curb requested beyond the 6 feet, per side of driveway, will require the written request from a representative of all residential units on the site. The Engineering Services Department will present the request to the Public Works Commission with 120 days of receipt of request. All residents on the block(s) affected will be invited to this meeting to provide input on the request. The action of the Public Works Commission may be appealed within 30 days to the City Council.
- 7. Engineering Services will issue a work order to the Department of Public Works upon the approval of the red curb and after the appeal period as ended. This portion of the process may take 6 to 8 weeks.

The above red curb policy is for clearance of parked vehicles from residential driveways. Red curbs for sight distance clearance at intersections, fire hydrants or other hazards please contact the City's Transportation Engineer.



APPENDIX D

Synopsis of Researched Documents



5.0 - SYNOPSES OF RESEARCHED DOCUMENTS

Minagar & Associates, Inc. conducted a review of all documents and reports listed above. Included below is a synopsis of each document. Following the synopsis for curb applications, in italics, is commentary on the relevance of the findings to the Red Curb Zone Policy and Procedure Study.

5.1 – Municipal Codes for the Cities of Los Angeles, Carson, Colton, Hawthorne, Lawndale, Redondo Beach, Torrance, and Gardena Regarding Red Curb Policy and Procedures

The goal of this study was to review and research neighboring cities policies and standards to inform the new red curb zone policy for the City of Gardena. The neighboring municipalities separate the establishment standard for no parking zones on narrow streets and approaches. The establishment of no parking zones can be implemented through signage and/or red curb markings.

Section 61.6.10 of the City of Torrance Municipal Code prohibits parking on any side when the street width is less than twenty-seven (27) feet, or on one side when the street width is less than thirty-four (34) feet. The Cities of Colton and Hawthorne establish a variant of the Code in the City Torrance where vehicles are prohibited from parking on any side when the roadway width does not exceed twenty (20) feet or on one side where the roadway width does not exceed thirty (30) feet from section 9.9 and 10.36.130, respectively. The City of Redondo Beach's Municipal Code Section 3-7.1204 is generalized under the jurisdiction of the City Manager in the case that if the narrowness of the street is found to create a hazard to vehicular or pedestrian passage, parking would be prohibited. The neighboring cities of Los Angeles, Lawndale, and Carson were found to have no defined prohibitions on parking in narrow streets. The City of Gardena's Municipal Code indicates standards similar to those for City of Torrance and City of Hawthorne are used to regulate parking on narrow streets. A summary of the findings is shown in **Table 3**.

Table 3: Summary of Narrow Road Parking Restrictions

City Name	Section	Summary	
		Street Width for Prohibited	Street Width for Prohibited
		Parking on Any Side (feet)	Parking on One Side (feet)
Torrance	61.6.10	27	34
Los Angeles	N/A	N/A	N/A
Carson	N/A	N/A	N/A
Colton	9.9	20	30
Redondo Beach	3-7.1204	Determined by City Manager	Determined by City Manager
Lawndale	N/A	N/A	N/A
Hawthorne	10.36.130	20	30
Gardena	10.28.120	20	30



Each neighboring city of the City of Gardena establishes their own parameters for no parking zones or red curb zones, if marked by the traffic authority, in regards to the street segment leading to an intersection approach. The following gives the section numbers used for the review of restricted parking for approaches:

• Torrance: §61.6.1 and §61.6.12

• Los Angeles: §80.55

Carson: §3251.4

Colton: §9.5 and §9.10Redondo: §3-7.1204

Hawthorne: §10.36.140

The City of Torrance establishes the following standards for no parking locations and permit the traffic authority to mark or establish signage indicating the regulation:

- Within twenty (20) feet of a point on the curb immediately opposite to the mid-block end of a crosswalk
- Within twenty-five (25) feet of an intersection in any business district with buses exempt at designated bus stops
- Within twenty-five (25) feet of the approach to any traffic signal, boulevard stop sign, or electric flashing device
- Any other locations, which is deemed necessary of the City of Torrance City Traffic Engineer

In regards to general red curb zoning, the City of Los Angeles declares that red curbs are to be determined by the Department with the following standards:

- Within thirty (30) feet of an intersection in any business district except for buses
- Within twenty-five (25) feet to the approach line of a crosswalk, except for buses, however not within five (5) feet of the crosswalk
- Within fifteen (15) feet of any yield, except for buses
- In front of any school where it is determined to be an obstruction with exceptions for buses and bridges

The City of Carson implements the following regulations for red curb zone placement:

- Within thirty (30) feet of a marked crosswalk
- Within thirty (30) feet of an approach to any traffic signal, boulevard stop sign, or electric flashing device
- At any place for a distance not to exceed one-hundred (100) feet where stopped vehicles hamper safety

For the City of Colton, the following standards apply:

- Within any divisional island unless authorized and clearly indicated with appropriate signs or markings
- Any location determined by the Council or City Engineer to be a traffic hazard or endangerment to life or property
- Within twenty (20) feet of the curb immediately opposite to the mid-Block safety zone, when such place is indicated by appropriate signs or red paint upon the curb surface
- Within twenty (20) feet of a crosswalk at an intersection when in the Central Traffic District or any Business district when marked by signage or red paint upon the curb surface, except for buses at an appropriately marked bus stop



 Within twenty (20) feet of an approach to any traffic signal, boulevard stop sign, or electric flashing device

The City of Redondo Beach addresses restrictions on parking by using the following standards:

- Within one-hundred and fifty (150) feet of an intersection
- Within twenty-five (25) feet of a point where the nearest rail of the track of a common carrier crosses the curb line of a street at any place within a block
- Any place where the curb line of a street is in such proximity to the rails of a common carrier that any portion of a vehicle parked there would be close or within the path of such carrier to constitute a hazard
- Within ten (10) feet of a driveway to any regularly established bus depot or terminal
- Within five (5) feet of any driveway not more than twenty (20) feet in width
- Upon a viaduct or approach to a viaduct or bridge

Within the Municipal Code of the City of Lawndale standards are not defined and red curb zones shall be determined by the traffic authority.

The City of Hawthorne establishes the follow for red curb zone standards:

- Within fifteen (15) feet of an intersection, except for buses and taxis at a stop
- Within twenty-five (25) feet of approach to traffic signal, boulevard stop sign, or electric flashing device
- Other locations determined by the Chief of Police to require red paint of the curb surface

The City of Gardena's regulations for general red curb parking is disallowed using the following parameters:

- Within twenty (20) feet of a point on the curb immediately opposite the mid-block end of a safety zone
- Within twenty (20) feet of a crosswalk at an intersection within any business district with buses exempt for designated bus stops
- Within twenty (20) feet of the approach to any traffic signal, boulevard stop sign, or electric flashing device
- As determined by the traffic authority to eliminate dangerous traffic hazards

Similar regulations and standards used between cities are compared and summarized in the tables on the following page.

Table 4: Summary of Intersection Approach Parking Restrictions

Intersection Approach for Business District Restrictions (Buses and Taxis Exempt)			
City Name	Section	Summary	
Torrance	61.6.1, 61.6.12	Within 25 feet	
Los Angeles	80.55	N/A	
Carson	3251.3, 3251.4	Within 30 feet	
Colton	9.3, 9.10	Within 20 feet (Defined at Intersection	





		Crosswalk)
Redondo Beach	3-7.1204	Within 150 feet
Lawndale	N/A	N/A
Hawthorne	10.36.140	Within 15 feet
Gardena	10.28.140	Within 20 feet

Table 5: Summary of Traffic Control Approach Parking Restrictions

	Approach to any Traffic Control Device or Signage			
City Name	Section	Summary		
Torrance	61.6.1, 61.6.12	Within 25 feet		
Los Angeles	80.55	Within 30 feet		
Carson	3251.3, 3251.4	N/A		
Colton	9.3, 9.10	Within 20 feet		
Redondo Beach	3-7.1204	N/A		
Lawndale	N/A	N/A		
Hawthorne	10.36.140	Within 25 feet		
Gardena	10.28.140	Within 20 feet		

Table 6: Summary of Crosswalk Approach Parking Restrictions

Approach to any Marked Crosswalk			
City Name	Section	Summary	
Torrance	61.6.1, 61.6.12	Within 20 feet	
Los Angeles	80.55	Within 30 feet	
Carson	3251.3, 3251.4	N/A	
Colton	9.3, 9.10	Within 20 feet (Defined at Intersection in the	
		Central Traffic or Business District)	
Redondo Beach	3-7.1204	N/A	
Lawndale	N/A	N/A	
Hawthorne	10.36.140	N/A	
Gardena	10.28.140	Within 20 feet	

5.2 – Municipal Codes for the Cities of Los Angeles, Carson, Colton, Hawthorne, Lawndale, Redondo Beach, Torrance, and Gardena Regarding Yellow Curb Policy and Procedures

The establishment of loading zones are used for both passenger and material loading and the curb markings may be supplemented by signage or curb labels to define the type of loading zone. For most neighboring cities, loading zones are permitted in any location within a business district or gathering location as long as the length of the zone does not exceed half the length of the block. The following table summarizes each cities Loading Zone Standards and the cities' standard defining the policy.

Table 7: Summary of Loading Zone Establishment Standards





City Name	Section	Summary
Torrance	61.6.21	-Anywhere in Business District or in front of a business/hall/public assembly location -Loading zone length no longer than ½ length of total block
Los Angeles	80.56	-Any location determined to reduce traffic
Carson	3203	-Determined by Public Works Director
Colton	11	-Determined by Chief of Police -Anywhere in Central Traffic or Business District, or in front of a business/hall/public assembly location -Loading zone length no longer than ½ length of total block
Redondo Beach	3-7.1205	-Determined by the City Manager

Table Continued on Next Page

Table 7 Continued: Summary of Loading Zone Establishment Standards

Lawndale	N/A	N/A
Hawthorne	10.44.010	-Determined by Chief of Police -Anywhere in Business District or in front of a business/hall/public assembly location -Loading zone length no longer than ½ length of total block
Gardena	10.28.170	-Anywhere in Business District or in front of a business/hall/public assembly location -Loading zone length no longer than ½ length of total block

5.3 – Municipal Codes for the Cities of Los Angeles, Carson, Colton, Hawthorne, Lawndale, Redondo Beach, Torrance, and Gardena Regarding Blue Curb Policy and Procedures

The establishment of the majority of neighboring cities designate the establishment of blue curb zones to the local Traffic Authority. The exception is the City of Torrance with uses the standards set by loading zones and applies it to blue curb zones as well. The traffic authorities to which each city designates this responsibility to is summarized in **Table 6.**



Table 8: Summary of Blue Curb Zone Establishment Standards

City Name	Section	Summary	
Torrance	61.6.21	Follows establishment standards of City of	
		Torrance's loading zones	
Los Angeles	80.57	Determined by the Department of Transportation	
Carson	3203	Determined by the Public Works Director	
Colton	N/A	N/A	
Redondo Beach	3-7.1205	Determined by the City Manager	
Lawndale	N/A	N/A	
Hawthorne	10.44.060	Determined by the Chief of Police	
Gardena	N/A	N/A	

5.4 - Existing Application Procedure for the City of Los Angeles

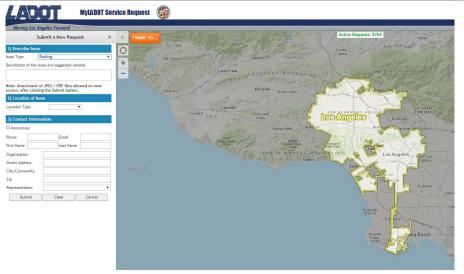


Figure 8: LADOT - Curb Maintenance Request

The City of Los
Angeles currently uses
myLADOT to receive
and display existing
service requests within
the city. Depending on
the type of curb
request, there are
different "Issue
Type[s]" which may be
selected. In order to
request addition or
removal of curb zones,
blue curbs exempt, a
user may select

"Parking" and input the request location and applicant information. For maintenance requests, there is a category titled "Maintenance," which would be used. In the case of blue curb requests, there is a category titled "Blue Curb." The request will be reviewed by the city and upon approval, proceed with the requested measures. There is no application fee associated with the service request



The City of Los Angeles uses a localized request system with a generalized form. The primary variance for each form would be the "Issue Type." The application also provide a visual aid for identifying the location of each service request.

5.5 – Existing Application Procedure for the City of Hawthorne

The City of Hawthorne utilizes a form, which can be found on the city's website for the page containing the City of Hawthorne's online forms and is shown in **Appendix B**. The application is associated with an eight (8) dollar charge per foot to be painted with a minimum charge of twenty-five (25) dollars and is applicable to both existing and proposed parking zones. The form would be sent to the City of Hawthorne, Public Works – Engineering Division to be reviewed and approved. The form itself requires the applicant to list their information, the reason behind the request, information and sketch of the curb of interest, and contains a section at the bottom to be filled out by the City of Hawthorne.

The City of Hawthorne's existing request form allows for written approval and contact information to be kept on one file page, permitting easier record keeping. There is also a segment for sketches, which can vary in quality between residents of the city. Additionally, a required deposit enforced by the City of Hawthorne offsets the cost of services and materials.

5.6 - Existing Application Procedure for the City of Redondo Beach

As mentioned in the City of Redondo Beach Traffic Engineering Division Policy, Request for Red Curbs at Driveways (**Appendix C**), in order for residents of the City of Redondo Beach to request red curbs at private driveways, they are required to contact the City Transportation Engineer and in the case of a multi-unit residence, contact and obtain written approval by the other residents to proceed with the curb painting. The curb of interest must have a minimum proposed painting length of three (3) feet unless the curb itself does not meet the required three (3) feet of length.

The curb length to be painted, if above three (3) feet, but not exceeding a total length of six (6) feet, requires the written permission of the adjacent neighbor and other residents in the case of a multi-unit residence. If the requested curb length to be painted is above six (6) feet in length, written permission by all residential units on the site in addition to a meeting with the City of Redondo Beach Engineering Services Department, Public Works Commission, and all residents of the affected site/block.

The initial inspection is performed by Engineering Services and will issue a work order to the Department of Public Works upon approval. There are no fees associating with the application for red curbs at driveways

The Redondo Beach Traffic Engineering Division Policy for Red Curb Request for Driveways clearly defines the procedures for the applicant as well as the actions to be taken by the city.



For curb painting applications at locations unrelated to driveways, the traffic authority would need to be contacted.

5.7 – Existing Application Procedure for the City of Torrance

The City of Torrance uses an online service request form from Accela Citizen Access that is automatically submitted to the city and is depicted in **Figure 9**. The form requires the resident to select a request type, for the case of curb painting it would be "Sidewalk/Curb/Gutter." Following the selection, the resident must input the subcategory of "Curb/Gutter" and write both a short and detailed description of the request. On the following pages the applicant must enter their information as well as the curb location of interest. There are no associated fee with the request.



City of Torrance Online Permit, Request and Licensing Center Note for those viewing this site with a mobile devices or tablet: to ensure this website works fully on your device, in your mobile browser click Request Desktop Website. The setting is not part of this website, but a setting in your device's web browser, the location and name of which varies depending on the device and the browser you are using. Home Service Request Licenses Building Engineering Enforcement Fire more Create an Application Search Applications Sidewalk/Curb/Gutter 1 What 2 Where 3 Who/Contact 4 Review 5 Record Issuance Step 1: What > Request Details Type a description of the issue or request you would like to submit. You may want to include a description of the location of the issue as sometimes an address is not enough for someone to find the issue you observed. If you want to add an attachment (like a photo of the issue) add it at the bottom of this page. (At this time, a browser plug-in is needed to add an attachment.) If you have chosen an incorrect request type or would like to change the request type (the request type is shown above), at any time before you submit your request, you can start over by clicking on the Create an Application link above. * indicates a required field. Request Category GENERAL INFORMATION This sidewalk or curb/gutter request regards: Curb/Gutter Request Description Use the Short Description field below to enter a one-sentence title for your request. Use the Detailed Description area below for describing the details of the request you are submitting. Please focus on one issue for this request. Also, it is often helpful to describe the location of the issue you observed as an address may not provide enough detail for staff to locate the issue you are reporting. For example, "in the alley," or "along the side of the property on Madrona Ave."

Figure 9A: Accela Citizen Access – Curb Maintenance Request





City of Torrance Online Permit, Request and Licensing Center Note for those viewing this site with a mobile devices or tablet: to ensure this website works fully on your device, in your mobile browser click Request Desktop Website. The setting is not part of this website, but a setting in your device's web browser, the location and name of which varies depending on the device and the browser you are using. Home Service Request Licenses Building **Engineering Enforcement** Fire Create an Application Search Applications Select a Request Type Choose one of the request types from the pick list below, then click on the Continue Service Request button at bottom if necessary. Keep in mind that the information needed depends on the request type you choose below, as each is unique in some ways. If you choose an incorrect request type below, at any point in the process, you may click again on Create an Application and start over without saving. Note that some request types require the person submitting the request to be logged in. If you find that after selecting a certain request type you cannot proceed, click on the Login link at the top, right corner of this page and login to the City's online services. (You may need to then click on the Online Permits and Licensing link to return to this page.) For assistance, or to apply for a record type not listed below, please contact the City during regular operating hours. If you would like to submit a request regarding Cable television issues, please instead click on the link at the end of this sentence and use the form on that web page: https://www.torranceca.gov/our-city/citicable/contact Search Animal Control Business Assistance Business Sign Issues Construction Issue Fire Hazard (non emergency) Illegal Business Use Medians Noise Park Condition Parking/Vehicle Issue Police Question (non emergency) Property Maintenance Recreation Programs Recycling Refuse/Trash Pickup Sewer

Figure 9B: Accela Citizen Access – Curb Maintenance Request



Sidewalk/Curb/Gutter



5.8 - Existing Application Procedure for the City of Gardena

The existing procedure for curb painting applications is found on Gardena Direct, located within the Official City of Gardena webpage after utilizing the sidebar for the category "Online Services," followed by "Gardena Direct." However this is assuming residents are aware that Gardena Direct is the method for city service applications. In the case that residents are not aware that Gardena Direct connects to the curb applications pages, the initial navigation process may be drawn out. For an average user, this navigation method may be changed to initially landing on the "Street and Sidewalk" page on the City of Gardena website, by assuming users use a search engine for related terms (e.g. "City of Gardena Curb Painting") and opening the top link for "Sidewalk Repair," which after pressing another link within the page, leads to the Gardena Direct page as well. Once the Gardena Direct page is opened, users must find the category "Streets, Trees, Graffiti and Shopping Carts" and subsequently "Suggest New Curb Painting." Figure 10 shows the existing curb painting application page.

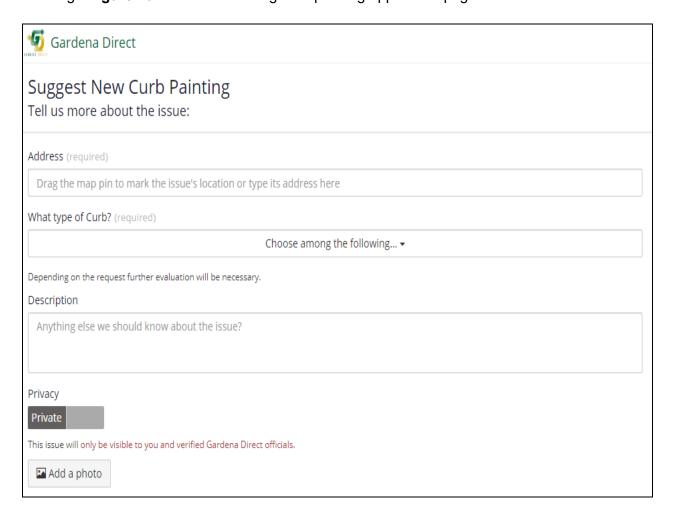


Figure 10: Gardena Direct Webpage – Curb Painting Request



Alternatively, if a resident wishes to request curb painting removal, they would navigate to the "Existing Curb Maintenance Needed" page under the category "Streets, Trees, Graffiti and Shopping Carts" page on the Gardena Direct website. There are no associated fees with the suggestion of new curb paintings or the removal of existing curb paintings. **Figure 11** shows the existing curb painting removal application page.

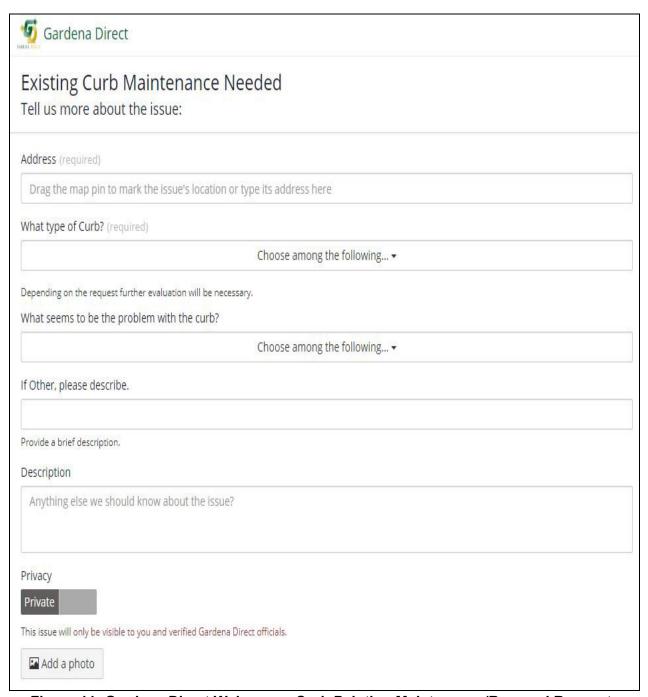


Figure 11: Gardena Direct Webpage - Curb Painting Maintenance/Removal Request



APPENDIX E

City of Gardena – Application for Installation or Removal of Painted Curbs

City of Gardena

Application for Installation or Removal of Painted Curbs

Gardena Police Department – Traffic Bureau

1700 W. 162nd st. Gardena CA 90247

Requestor :_				-
Contact Number / Email : _				_
Location Address : _ And / Or Intersection				-
				-
Description :				_
				
Location Type : Residentia		mercial ustrial	Service	
		Official Use:	Name	Date
Number of Qualifying Collisi In the past 12 – Months	Evaluated by:			
		Approved by:		
Daily Traffic Volume on Adjacent Roadway		Sent to PW:		
Number of Units or 1-hour Driveway Volume		Final Recommendation: (Yes/No) Length:		
Evaluator Comments :		-		



APPENDIX F

City of Gardena – Field Evaluation and Data Collection Flow Chart

