

USLIMITS2 Speed Zoning Report

Project Overview

Project Name: Tech Ridge Blvd. Speed Study

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Basic Project Information

Project Number: 44
Route Name: Tech Ridge Boulevard
From: IH 35 Northbound Frontage Road
To: E. Parmer Lane
State: Texas
County: Travis County
City: Austin city
Route Type: Road Section in Developed Area
Route Status: Existing

Crash Data Information

Crash Data Years: 3.00
Crash AADT: 19829 veh/day
Total Number of Crashes: 3
Total Number of Injury Crashes: 0
Section Crash Rate: 14 per 100 MVM
Section Injury Crash Rate: 0 per 100 MVM
Crash Rate Average for Similar Roads: 200
Injury Rate Average for Similar Roads: 63

Roadway Information

Section Length: 1.0 mile(s)
Statutory Speed Limit: 60 mph
Existing Speed Limit: 45 mph
Adverse Alignment: No
One-Way Street: No
Divided/Undivided: Divided
Number of Through Lanes: 6
Area Type: Commercial
Number of Driveways: 16
Number of Signals: 1

Traffic Information

85th Percentile Speed: 49 mph
50th Percentile Speed: 43 mph
AADT: 19829 veh/day
On Street Parking and Usage: Not High
Pedestrian / Bicyclist Activity: Not High

Recommended Speed Limit:



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Equations Used in the Crash Data Calculations

Exposure (M)

$M = (\text{Section AADT} * 365 * \text{Section Length} * \text{Duration of Crash Data}) / (100000000)$
 $M = (19829 * 365 * 1.0 * 3.00) / (100000000)$
 $M = 0.2171$

Crash Rate (Rc)

$Rc = (\text{Section Crash Average} * 100000000) / (\text{Section AADT} * 365 * \text{Section Length})$
 $Rc = (1.00 * 100000000) / (19829 * 365 * 1.0)$
 $Rc = 13.82 \text{ crashes per 100 MVM}$

Injury Rate (Ri)

$Ri = (\text{Section Injury Crash Average} * 100000000) / (\text{Section AADT} * 365 * \text{Section Length})$
 $Ri = (0.00 * 100000000) / (19829 * 365 * 1.0)$
 $Ri = 0.00 \text{ injuries per 100 MVM}$

Critical Crash Rate (Cc)

$Cc = \text{Crash Average of Similar Sections} + 1.645 * (\text{Crash Average of Similar Sections} / \text{Exposure}) ^ { (1/2) } + (1 / (2 * \text{Exposure}))$
 $Cc = 199.97 + 1.645 * (199.97 / 0.2171) ^ { (1/2) } + (1 / (2 * 0.2171))$
 $Cc = 252.20 \text{ crashes per 100 MVM}$

Critical Injury Rate (Ic)

$I_c = \text{Injury Crash Average of Similar Sections} + 1.645 * (\text{Injury Crash Average of Similar Sections} / \text{Exposure}) ^{(1/2)} + (1 / (2 * \text{Exposure}))$

$I_c = 63.18 + 1.645 * (63.18 / 0.2171) ^{(1/2)} + (1 / (2 * 0.2171))$

$I_c = 93.55$ injuries per 100 MVM