



City of Dallas

All-Way Stop Petition Process At Residential Intersections

**Transportation and
Infrastructure Committee
October 18, 2021**

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Presentation Overview



1. Purpose
2. Definition
3. City Ordinances
4. Comparison/Other Cities/National Practice
5. Recommendations
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1 - Purpose



- A Council request has been made to discuss Sections 51A-9.401 and 51A-9.403 of the Dallas City Code to consider a potential amendment to the petition process for four-way/all-way stop sign requests at residential intersections to reduce the radius for required property owner and tenant support from a 900-foot radius to a 300-foot radius.
- The purpose of this briefing is to provide background information about the evaluation of all-way stops at residential intersections and to review potential amendments to Section 51A-9.400 of the Dallas City Code concerning all-way stops.



2 - Definition



- Texas Manual On Uniform Traffic Control Devices (TMUTCD) defines traffic control devices as follows:
 - *“Traffic control devices shall be defined as all signs, signals, markings, and other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, pedestrian facility, bikeway, or private road open to public travel”*
- Stop Signs are considered a traffic control devices
- Sec 2.04 of TMUTCD establishes guidance for intersection control based on the following factors:
 - A. Vehicular, bicycle, and pedestrian traffic volumes on all approaches;
 - B. Number and angle of approaches;
 - C. Approach speeds;
 - D. Sight distance available on each approach; and
 - E. Reported crash experience.



2 - Definition



- Further, Sec 2.04 of TMUTCD establishes guidance for use of YIELD or STOP signs based on the following factors:
 - A. An intersection of a less important road with a main road where application of the normal right-of-way rule would not be expected to provide reasonable compliance with the law;
 - B. A street entering a designated through highway or street; and/or
 - C. An unsignalized intersection in a signalized area.
- In addition, the use of YIELD or STOP signs should be considered at the intersection of two minor streets or local roads where the intersection has more than three approaches and other relevant conditions





2 - Definition

- Multi-way stop controls can be used where safety concerns exist for pedestrians, bicyclists, and other road users and is generally applicable where the traffic volumes on the intersecting roads are equal
- Criteria that warrants installation of multi-way (aka all-way) stop signs include:
 - Vehicular volume of approx. 300 vehicles/hour for all roadways/day
 - Combined vehicular/pedestrians/bicycle volumes from the minor streets is approximately 200 units/hour on an average day and 30 seconds average delay on minor street
 - If 85th percentile speed on major streets exceeds 40 mph, the above values are reduced by 30%



2 - Definition



- If none of the criteria is satisfied, other considerations include:
 - A. The need to control left-turn conflicts;
 - B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;
 - C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and
 - D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection
- The above criteria is generally referred to as “Warrant” studies where staff collects data for analysis
- It is important to note that Section 2B.04 of the TMUTCD states that **“YIELD or STOP signs should not be used for speed control.”**



3 - City Ordinances



- City of Dallas Ordinance **SEC. 51A-7.2308. SIGNS WITHIN AND OVER THE PUBLIC RIGHT-OF-WAY** states:
 - Signs may be located within or project over the public right-of-way, subject to the Texas Manual on Uniform Traffic Control Devices
 - The traffic engineer shall review and must approve the location in, projecting over, or overhanging the public right-of-way to ensure that the sign complies with the Texas Manual on Uniform Traffic Control Devices, other city ordinances and state laws, and will not pose a traffic or safety hazard or visibility obstruction
 - For signs in the right-of-way, if there is a conflict between the text of this division and the Texas Manual on Uniform Traffic Control Devices, the Texas Manual on Uniform Traffic Control Devices controls. (Ord. 29392)



3 - City Ordinances



- City of Dallas Ordinance **SEC. 51A-9.400. Four-Way/All-Way Stop Controls at Residential Intersections** addresses the criteria for the installation of multi-way stop signs at residential intersections when the current TMUTCD warrants are generally not satisfied
- City of Dallas Ordinance **SEC. 51A-9.400. Four-Way/All-Way Stop Controls at Residential Intersections guidelines include:**
 - the intersecting streets are residential;
 - the intersecting streets are local;
 - the subject street is not a fire-rescue department emergency response route;
 - the subject street is used by less than 6,000 vehicles per day; and
 - it is in the public interest to grant the application.



3 - City Ordinances



- The current ordinance governing the request for the installation of an all-way stop on a residential intersection should be supported by at least two-thirds of the owners or tenants residing within 900 feet of the intersection at issue
- Further, the ordinance provides guidance on the rules governing the calculation of the votes
- The current request is to discuss whether to reduce this 900-foot distance



5 - Comparison/ Other Cities



Municipality	MUTCD	PETITION
Austin, TX	Yes	No
Baltimore, MD	Yes	No
Charlotte, NC	Yes	Yes
Cleveland, OH	Yes	No
Clark County, NV	Yes	No
Denver, CO	Yes	No
El Paso, TX	Yes	No
Fort Worth, TX	Yes	No
Fresno, CA	Yes	No
Houston, TX	Yes	No
Jacksonville, FL	Yes	No
Kansas City, MO	Yes	No
Las Vegas, NV	Yes	No

Municipality	MUTCD	PETITION
Los Angeles, CA	Yes	No
Memphis, TN	Yes	No
Milwaukee, WI	Yes	No
Minneapolis, MN	Yes	No
Oklahoma City, OK	Yes	Yes
Philadelphia, PA	Yes	No
Phoenix, AZ	Yes	No
Portland, OR	Yes	No
Sacramento, CA	Yes	No
San Antonio, TX	Yes	No
San Diego, CA	Yes	Yes
Seattle, WA	Yes	No

*Information provided from prior City of Dallas presentation



5 - Comparison/ Other Cities



- 92% (23/25) municipalities surveyed exclusively use warrant studies to install all-way stops
- 8% (3/25) of the municipalities surveyed allows citizens to petition for all-way stops in residential neighborhoods:
 - Charlotte, NC has a petition area of 1200 feet radius and requires support from 60% of the residents for installation
 - Oklahoma City, OK has a petition radius of 300 feet. A petition with 2/3rd support is required to initiate a warrant study for residential intersections. Staff presents study results to Traffic Commission for action.
- In comparison, Dallas has a 900 feet petition area and requires 2/3rd support for valid petitions

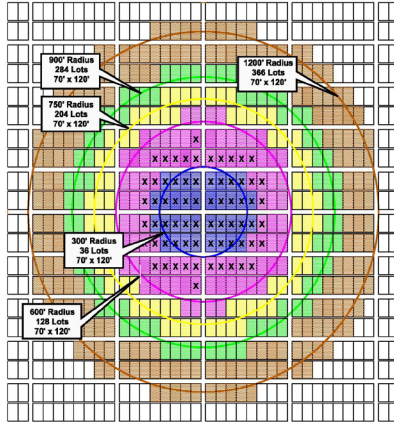




5- Comparison of Various Ranges and Lot Sizes

70X120

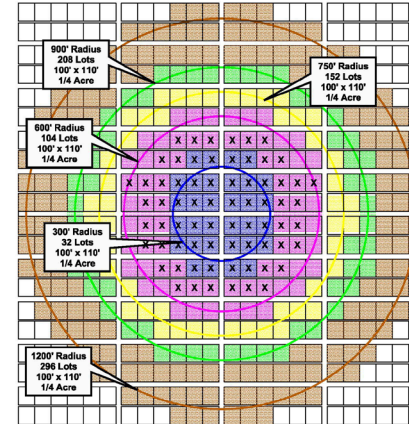
Standard



Lot Size
Std Lot 70' x 120'
1200' Radius = 366
900' Radius = 274
750' Radius = 204
600' Radius = 112
300' Radius = 33
X = One of the 70 Closest Lots

100X110

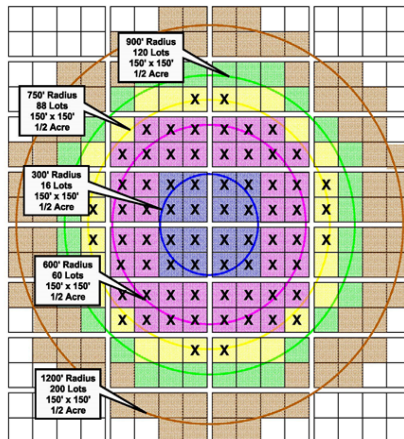
1/4 Acre



Lot Size
1/4 Ac - 100' x 110'
1200' Radius = 296
900' Radius = 208
750' Radius = 152
600' Radius = 104
300' Radius = 32
X = One of the 70 Closest Lots

150X150

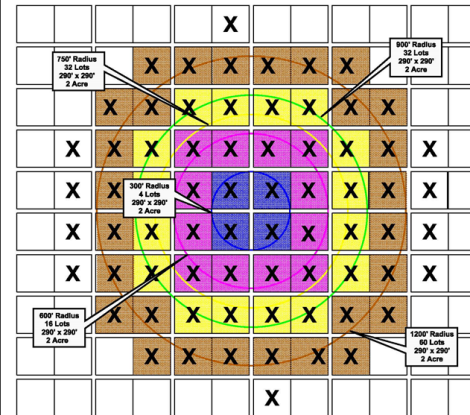
1/2 Acre



Lot Size
1/2 Ac - 150' x 150'
1200' Radius = 200
900' Radius = 120
750' Radius = 88
600' Radius = 60
300' Radius = 16
X = One of the 70 Closest Lots

290X290

2 Acre



Lot Size
2 Ac 290' x 290'
1200' Radius = 60
900' Radius = 32
750' Radius = 16
600' Radius = 8
300' Radius = 4
X = One of the 70 Closest Lots

*Information provided from prior City of Dallas presentation



5 - Comparison of Various Ranges and Lot Sizes



Range	LOT SIZE	STAND.	1/4 AC	1/2 AC	1 AC	2 AC
1200 FEET RADIUS	Number of Properties	366	296	200	104	60
	66.67% Support	244	198	134	70	40
	80% Support	293	237	160	84	48
900 FEET RADIUS	Number of Properties	274	208	120	68	32
	66.67% Support	183	139	81	46	22
	80% Support	220	167	96	55	26
750 FEET RADIUS	Number of Properties	204	152	88	52	32
	66.67% Support	137	102	59	35	22
	80% Support	164	122	71	42	26
600 FEET RADIUS	Number of Properties	128	104	60	32	16
	66.67% Support	86	70	41	22	11
	80% Support	103	84	48	26	13
300 FEET RADIUS	Number of Properties	36	32	16	12	4
	66.67% Support	25	22	11	8	3
	80% Support	29	26	13	10	4

*Information provided from prior City of Dallas presentation



6 - Recommendations



- Considerations to improve the process could include:
 - Expanding the warrant eligibility included in the “Other Considerations” part of Section 2B.07 of the TMUTCD
 - Reducing the radius from 900 ft to 600 ft supplemented by one public meeting, as needed
- Expansion of the warrant eligibility may include:
 - Adopt a further discount of the volume criteria (example: further reduction of 25%) if:
 - Adjoining land uses are commercial
 - There is significant presence of cut-through/pass-through traffic based on origin-destination data
 - Proximity to other existing measures to account for driver's expectations such as existing all-way stops at the adjacent blocks to the intersection in question
 - Relaxation of the minimum sight distance values for qualification
- Develop a scoring system as part of the warrant eligibility process



7 - Next Steps



- Incorporate input/feedback from Transportation and Infrastructure (TRNI) Committee
- Prepare a follow-up memo to TRNI Committee based on feedback, finalizing recommendations and next steps for implementation



8 - Discussion



- General questions/comments/feedback





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Appendix



Prior City Presentations



- **June 23, 2014:** The Public Safety Committee (PSC) was briefed
- **December 4, 2014 & January 22, 2015:** Staff presented the proposed amendment to CPC, which recommended denial of the amendment
- **May 26, 2015:** The PSC recommended an alternate amendment, substituting the 900 feet requirement with “70 closest lots”, which was supported by a majority of the members
- **June 24, 2015:** The City Council was briefed - No Action
- **August 15, 2018:** Five-Signature Memo was submitted to replace the 900 feet radius requirement to 70 closest owners or tenants residing within 900 feet of the residential intersection at issue. The Mobility Solutions, Infrastructure & Sustainability Committee reviewed and was not supportive of the change.

