



Item Overview

Business Meeting – 03/21/2016

Agenda #11

Subject: Approve Traffic Calming Measures on Edgewater Circle.

Staff:

Lance Norris, Director

Chris Blue, Chief

Kumar Neppalli, Traffic Engineering Manager

Department:

Public Works

Police

Public Works

Overview: The purpose of this item is to request Council authorization for the use of up to \$8,000 of 2010 Sidewalk and Street Improvement Bond funds for the installation of traffic calming measures on Edgewater Circle in the Southern Village neighborhood.

Town staff will work with the neighborhood to consider and develop traffic calming measures throughout Southern Village and provide a report to the Town Council in September of this year for review and approval.



Recommendation

That the Council adopt the attached resolution to authorize the use of up to \$8,000 of 2010 Sidewalk and Street Improvement Bond funds for the installation of traffic calming measures (combination of speed tables, pavement markings, and installation of additional traffic control signs) on Edgewater Circle now and direct the Town Manager to conduct a traffic calming study throughout Southern Village with a report to the Council in September 2016.

If the Council does not wish to take action on Edgewater Circle at this time, Town staff will include this street in the overall Southern Village neighborhood traffic calming report to be presented to the Council in September of this year.

Key Issues







- Policy: The Town Council adopted the “Policy and Procedures for Traffic Calming Measures” on June 30, 2004 and revised it on December 6, 2010 and February 8, 2016. The policy has been revised to allow for email-signed petitions from property owners.
- Valid Petition: A valid petition requesting installation of traffic calming measures on Edgewater Circle was received and complies with the Town policy. Please see the attached area map.
- Traffic Studies: Traffic study results on Edgewater Circle are provided below:
 - Average Daily Traffic Volume: 700 vehicles
 - Average Speed: 27 mph
 - 85% Speed: 34 mph
 - Highest Speed Observed: 60 mph
- Recommended Traffic Calming Measures: Town staff developed traffic-calming plans and shared the plans with the owners in the affected traffic calming service area. Affected owners provided input, and the majority supported the recommended traffic calming measures

(combination of speed tables, pavement markings, and installation of additional traffic control signs) on Edgewater Circle.

Fiscal Impact/Resources

- The estimated cost for the recommended traffic calming devices on Edgewater Circle is approximately \$8,000, using 2010 Sidewalk and Street Improvement Bond funds.

Council Goals:

<input type="checkbox"/>		Create a Place for Everyone	<input type="checkbox"/>		Develop Good Places, New Spaces
<input type="checkbox"/>		Support Community Prosperity	<input type="checkbox"/>		Nurture Our Community
<input checked="" type="checkbox"/>		Facilitate Getting Around	<input type="checkbox"/>		Grow Town and Gown Collaboration



Attachments:

- Resolution
- Policy and Procedures for Traffic Calming Measures
- Area Map
- Speed Table Designs

A RESOLUTION AUTHORIZING THE INSTALLATION OF TRAFFIC CALMING MEASURES ON EDGEWATER CIRCLE (2016-03-21/R-6)

WHEREAS, the Council of the Town of Chapel Hill is concerned about vehicular and non-vehicular safety and mobility on Town streets; and

WHEREAS, the Council adopted formal Traffic Calming Policy and Procedures on June 30, 2004 and received the revised Policy on December 6, 2010 and February 8, 2016; and

WHEREAS, the Council received a report and recommendations for traffic calming measures on Edgewater Circle; and

WHEREAS, the Council also received recommendations from the Transportation and Connectivity Advisory Board approving traffic calming measures on Edgewater Circle.

NOW, THEREFORE, BE IT RESOLVED by the Council of the Town of Chapel Hill that the Council authorizes the Manager to proceed with the installation of traffic calming measures on Edgewater Circle as described below:

Street/Area	Proposed Traffic Calming Measure(s)	Approximate Cost
Edgewater Circle	2 speed tables	8,000
	Total	\$ 8,000

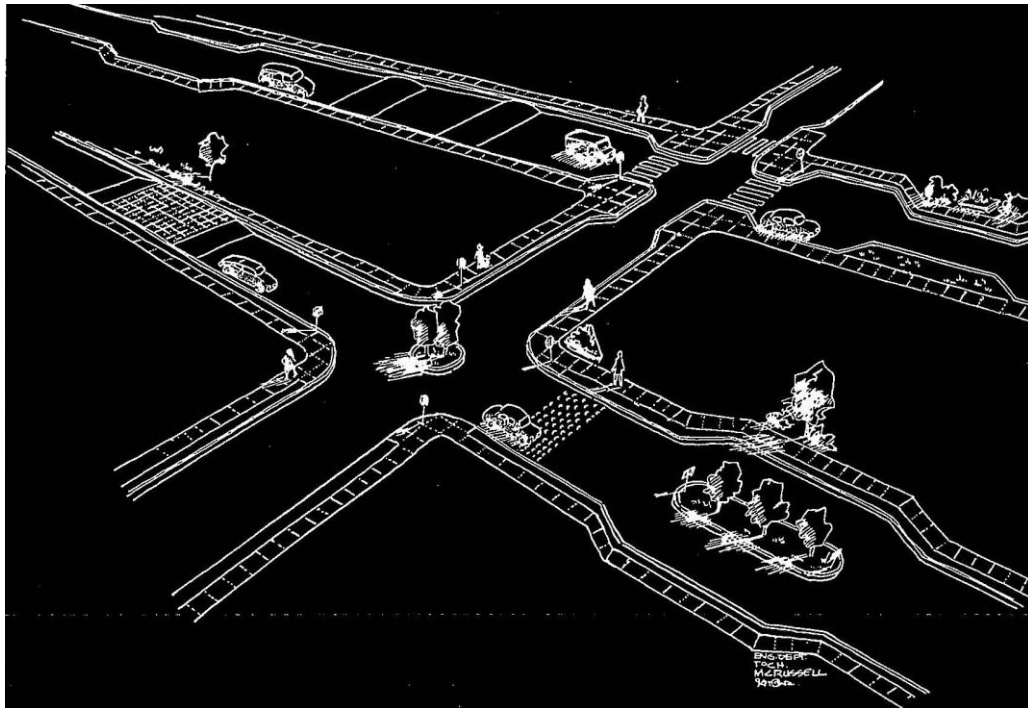
BE IT FURTHER RESOLVED that the Council authorizes the expenditure of up to \$8,000 from 2010 Sidewalk and Street Improvement Bond funds for construction/installation of the above noted traffic calming measures.

This the 21st day of March, 2016.



TOWN OF CHAPEL HILL

POLICY AND PROCEDURES FOR TRAFFIC CALMING MEASURES



(Adopted by the Town Council on June 30, 2004)
(Revised December 6, 2010)
(Revised February 8, 2016)

Adopted by the Chapel Hill Town Council: 06/30/2004
 Revised: 12/06/2010
 02/08/2016

POLICY AND PROCEDURES FOR TRAFFIC CALMING MEASURES

PURPOSE

To adopt official policy for the appropriate and consistent application of traffic calming measures on Town-maintained streets in Chapel Hill.

COVERAGE

This policy shall be applicable until such time that they are officially amended, modified, or rescinded by the Town Council.

POLICY

Traffic calming measures are applicable in residential neighborhoods where speeding vehicles and/or cut-through traffic are the primary concerns, and traditional police enforcement is found to be unfeasible and/or ineffective. Streets must typically be residential in nature for consideration under this policy. The policy is intended to promote traffic calming measures that are appropriately implemented, coordinated with the Town's key departments including Police, Fire, Engineering and Transit, and are supported by the community. In addition to citizen requests, traffic calming projects can also be identified by Town staff, Town advisory boards, and/or the Town Council.

The Staff will identify improvements to the procedures to keep the implementation of the Council's policy up-to-date. Staff will report on the status of the Procedures during the annual update on the Town's Traffic Calming program.

The following procedure will be used to identify, evaluate, and implement traffic calming projects in Chapel Hill.

1. A citizen requesting traffic calming improvements will fill out a Request for Traffic Calming Measures form available in the Town Public Works Department and on the Town web site.
2. Upon receipt of a properly completed Request form, the Town's Transportation Management Team will review the initial request to make sure that the requested streets for traffic calming measures does not reduce response time for emergency service providers. The Public Works Department will determine an applicable "service area" surrounding the requested traffic calming site(s) and will provide the requesting citizen with a Petition form to be signed by interested property owners within the designated service area. The size and extent of the service area will take into consideration the type of traffic calming project being proposed, the layout and type of properties in the vicinity, and the characteristics of the street network surrounding the proposed project site(s). Depending on the circumstances, the service area may include:
 - All properties abutting the proposed street segment to be modified.
 - All properties on adjacent street(s) with ingress/egress only possible via the modified street segment.
 - All properties on adjacent street(s) that have alternative points of ingress/egress but will be otherwise affected by the modified street segment.

The Transportation Board will hear appeals regarding service area boundaries established by Town staff, and will provide recommendations regarding alterations of the boundaries for consideration by the Manager.

3. The Public Works Department will prepare a Petition form including the following items:

- A map showing the service area
- A listing of property owners in the service area
- A preliminary traffic calming plan showing probable devices and their locations

The requesting citizen will obtain signatures on the Petition form. A valid Petition for traffic calming measures must be signed by 2/3's of the property owners within the service area surrounding the requested traffic calming site(s).

4. The requesting citizen will return the Petition form, with **original** signatures, to the Public Works Department at 6850 Millhouse Road, Chapel Hill, N.C. 27516.

Email signed petitions from the property owners are also allowed in lieu of original signatures. The email petition must indicate the full name(s) of property owners. Email signed petitions must be returned to the email address traffic@townofchapelhill.org.

5. The Public Works Department will confirm that the Petition signatures concur with land ownership records. Once a Petition is determined to be valid, the Public Works Department will notify the requesting citizen of the petition status.
6. Upon receipt of a valid Petition (as described in Step #3 above), the Public Works Department will gather project site data including traffic volumes, speeds, and accident history. A proposed project plan will be developed using the following procedure:
 - Assess problems and needs
 - Identify goals and objectives
 - Identify evaluation criteria
 - Evaluate alternatives
 - Select a proposed plan

The development of a traffic calming plan will include review and evaluation by the Town Fire Department, the Town Police Department, the Town's Transportation Management Team, neighborhood meetings, citizen input, consideration of current Town Policy for Placement of Stop Signs and Assignment of Speed Limits (APPENDIX A), and evaluation of the types and design criteria of traffic calming measures applicable to site (APPENDIX B).

The Public Works Department will prepare a cost estimate for the proposed traffic calming project and associated improvements.

7. Traffic calming projects will be prioritized in accordance with the ranking system outlined in APPENDIX C, and will be presented to the Town Transportation Board for consideration. The Transportation Board will review the proposed projects, including the associated traffic data compiled for each project. Based on its review, the Transportation Board will provide recommendations to be included with the Town Manager's annual report to the Town Council regarding proposed traffic calming projects

8. In the fall of each year, the Town Manager will prepare and present to the Council a report regarding proposed traffic calming projects. This report will include:
 - A prioritized list of proposed traffic calming projects
 - A summary of the traffic data pertaining to each project
 - Transportation Board review comments and recommendations
 - The Town Manager's recommendations

The Council will receive the Manager's report and recommendations, and may approve projects or refer them for further consideration during annual budget deliberations.

9. If necessary, during the budget development process, the Council will consider the proposed traffic calming projects presented in the Manager's annual report, and will allocate funds for construction as it deems appropriate.
10. Once project funding is approved by the Council, the Public Works Department will prepare construction plans and specifications and an updated cost estimate.
11. When the final project drawings are complete, the Public Works Department will schedule a neighborhood meeting to discuss the plans, estimated costs, and construction procedures/schedule. Each property owner in the service area of the project will be notified when and where the meeting is scheduled.
12. The project will be constructed by Town forces or by private contractor.
13. Town staff will monitor the performance of completed traffic management projects, and will report to the Council and Transportation Board regarding the operation and effectiveness of the traffic calming measures within 12-18 months following installation. This follow-up report could result in Council action to revise or remove a previously approved traffic management measure.
14. Citizen requests for removal of traffic calming devices will be required to go through the same petition process described previously for installation requests.

APPENDIX A

Adopted by the Chapel Hill Town Council: 04/24/89

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TOWN OF CHAPEL HILL POLICY FOR PLACEMENT OF STOP SIGNS AND ASSIGNMENT OF SPEED LIMITS

OBJECTIVE: It is the policy of the Town of Chapel Hill to install stop signs and assign speed limits that will promote the safe, efficient, and orderly movement of vehicles throughout the Town while preserving existing residential neighborhoods and providing safe and accessible means for pedestrian movement adjacent to and across Town streets.

GUIDELINES: The following guidelines shall be considered when evaluating placement of stop signs and assignment of speed limits on Town streets. In general, the Town of Chapel Hill places signs of all types in accordance with the recommendations of the Manual on Uniform Traffic Control Devices for Streets and Highways (M.U.T.C.D.), published by the U.S. Department of Transportation. This policy includes the general M.U.T.C.D. recommendations and supplements them with more specific guidelines directed to situations expected to arise in Chapel Hill.

STOP SIGNS

Stop sign(s) may be warranted at an intersection where one or more of the following conditions exist:

1. Intersection of less important road with a main road where application of the normal right-of-way rule is unduly hazardous.
2. Intersection of a minor street entering a through highway or street.
3. Unsignalized intersection in a signalized area.
4. Intersection where a combination of high speed, restricted sight distance, and serious accident record indicates a need for control by stop sign(s).
5. Intersection which intercepts identified pedestrian route(s) carrying significant Pedestrian volume.
6. Intersection on a street without curbs or sidewalks when such streets are carrying traffic volume significantly above that for which the street was designed.
7. Intersection with existing irregular stop sign placement, where additional sign(s) would improve safety.

8. Unsigned intersection within an existing series of intersections with stop signs.
9. Where the interest of public safety dictates.
10. Intersection of two collector streets that provide primary service to an area and carry nearly equal traffic volumes, which makes clear assignment of right-of-way difficult.
11. Intersection adjacent to facilities such as parks, pools, schools, or other facilities which significantly increase and concentrate pedestrian and vehicular traffic in a localized area.
12. Intersection within a specific street network that carries through traffic on a route which is less desirable than on an alternative route or designated thoroughfare.

Stop sign installation will normally not be recommended in the following situations:

1. At mid-block locations.
2. Solely for the purpose of controlling vehicular speeds.
3. At locations where a stop would create a high likelihood of rear-end collisions.
4. On major arterials or thoroughfares.
5. At locations where yield signs will provide adequate control without requiring full stops.
6. At railroad crossings.

Stop sign installations will be evaluated by Town engineering staff and judged in accordance with these guidelines to avoid potentially detrimental use of this highly restrictive traffic control measure. Evaluations will consider alternatives to stop sign installations which may include construction of sidewalks, improvement of sight distance, construction or improvement of alternative traffic routes, or other site-specific improvements in lieu of stop sign placement.

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SPEED LIMITS

In general, speed limits will be assigned on the basis of street classification as follows:

Local.....	25 mph
Collector.....	25-35 mph
Arterial (Major and Minor).....	45 mph

Changes in existing speed limits and/or posting of speed limits other than those generally recommended by street classification will be considered in situations where:

1. Changes in use of property adjacent to a street creates changed speed limit conditions.
2. Changes in vehicular or pedestrian traffic patterns on a given street creates changed speed limit conditions.
3. The proximity or locations of parks, pools, schools, driveways or other facilities increases and concentrates vehicular and pedestrian traffic on a given street or streets.
4. Street design will not accommodate the speed limit normally recommended, or the posted speed limit.
5. Changes will create a more uniform, continuous speed limit throughout a defined travel corridor.

Speed limits below 25 mph will not be considered on public streets with the exception of special zones such as schools or hospitals.

Speed limits will be evaluated by Town engineering staff to create conditions where the Town street system can be utilized efficiently and safely at speeds that can be adequately enforced. Evaluations will include review of alternatives to speed limit changes which may include street improvements, construction of alternative routes, control of access, or other site-specific improvements in lieu of speed limit changes.

APPENDIX B

TYPES OF TRAFFIC CALMING MEASURES AND DESIGN CRITERIA

Traffic Calming Device	Street Classification (Intersection)	Average Daily Traffic Volume (ADT) Minimum & Maximum	Street Width (Edge to Edge)	Street Grade or Intersecting Street Grades	Line of Sight (Minimum)	Adjacent On-Street Parking	Posted Speed Limit	Minimum 85 th Percentile Speed
Speed Tables	Local or Local Collector	800 - 3000 vpd	25 ft.	4%	360 ft.	Removed	25 mph	35 mph
Pavement Treatments	Local or Local Collector	800 - 3000 vpd	20 ft.	4%	360 ft.	Removed	25 - 35 mph	35 to 45 mph
Semi-Diversers	Local	800 - 1500 vpd	25 ft.	1%	360 ft.	Removed	25 mph	35 mph
Cul-de-sac	Local	800 - 1500 vpd	(Note 1)	(Note 2)	360 ft.	Removed	25 mph	35 mph
Mid-block Closure	Local	800 - 1500 vpd	25 ft.	(Note 2)	360 ft.	Removed	25 mph	35 mph
Forced Turn Channelization	Major Street - Local or Local Collector Minor Street - Local	800 - 1000 vpd	25 ft.	(Note 1)	360 ft.	Removed	25 - 35 mph	35 to 45 mph
Traffic Circle	Major Street - Local or Local Collector Minor Street - Local	800 - 3000 vpd	(Note 1)	1%	360 ft.	Removed	25 - 35 mph	35 to 45 mph
Chicanes	Local Collector	800 - 3000 vpd	(Note 1)	4%	360 ft.	Removed	25 - 35 mph	35 to 45 mph
Chokers	Local or Local Collector	800 - 3000 vpd	(Note 1)	4%	360 ft.	Removed	25 - 35 mph	35 to 45 mph

Note 1: Existing Street conditions must be able to accommodate Emergency vehicle requirements.

Note 2: Existing Street conditions must be able to maintain drainage requirements.

Note 3: The criteria in this table were developed by the Chapel Hill Public Works Department. They are based on accepted traffic engineering practices and similar traffic calming applications in other parts of the country.

APPENDIX C

RANKING SYSTEM FOR TRAFFIC CALMING PROJECTS

Item	Points
1. Traffic Volume	Average daily traffic volume on the proposed project street divided by 100. [20 points maximum]
2. Traffic Speed	Percentage of vehicles traveling at or more than 10 mph over the posted speed limit on the proposed project street divided by 2. [40 points maximum]
3. Traffic Accidents	Two points per accident that likely could have been resolved by the recommended traffic calming device, based on accident records for the past three consecutive years. [20 points maximum]
4. Schools	Five points for each private or public elementary, middle, or high school within the area benefited by the proposed traffic calming measure.
5. Other	a) Five points if a street proposed for a traffic management project has a sidewalk on only one side. b) Twenty points if a street proposed for a traffic management project does not have a sidewalk on either side. c) Ten points if a street proposed for a traffic management project has travel lane widths wider than 10 feet. d). Three points for each pedestrian generator or attractor (such as a park, swimming pool, green-way, etc.) within the area benefited by the proposed calming measure. e) One point for each bus stop within the area benefited by the proposed calming measure. f) Five points for each designated school crossing within the area benefited by the proposed calming measure. g) Ten points for each six month period that a project remains on the prioritized list without being selected for funding.



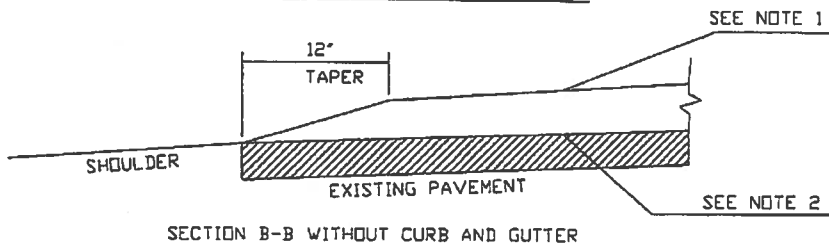
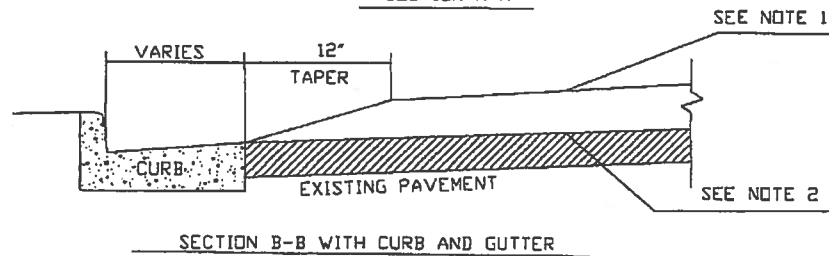
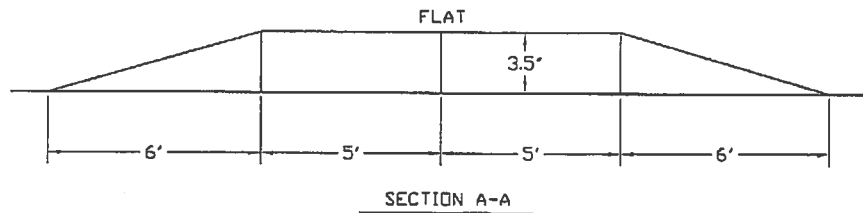
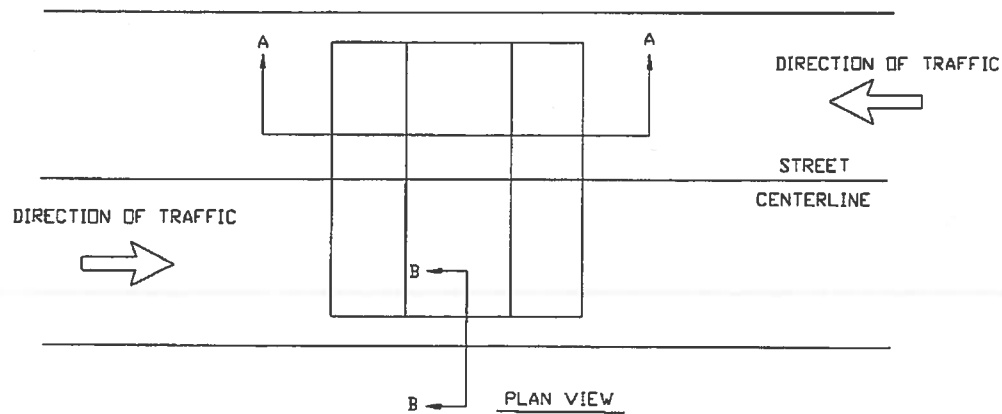
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Proposed Speed Tables

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Edgewater Circle Area Map - Alen Park Dr to Parkview Cres



NOTES:

1. USE TYPE I-2 OR SF 9.5A ASPHALTIC CONCRETE PER NCDOT STD. SPECIFICATIONS (SECT. 610 & 645).
2. TACK COAT PER NCDOT STD. SPECIFICATIONS (SECT. 605).

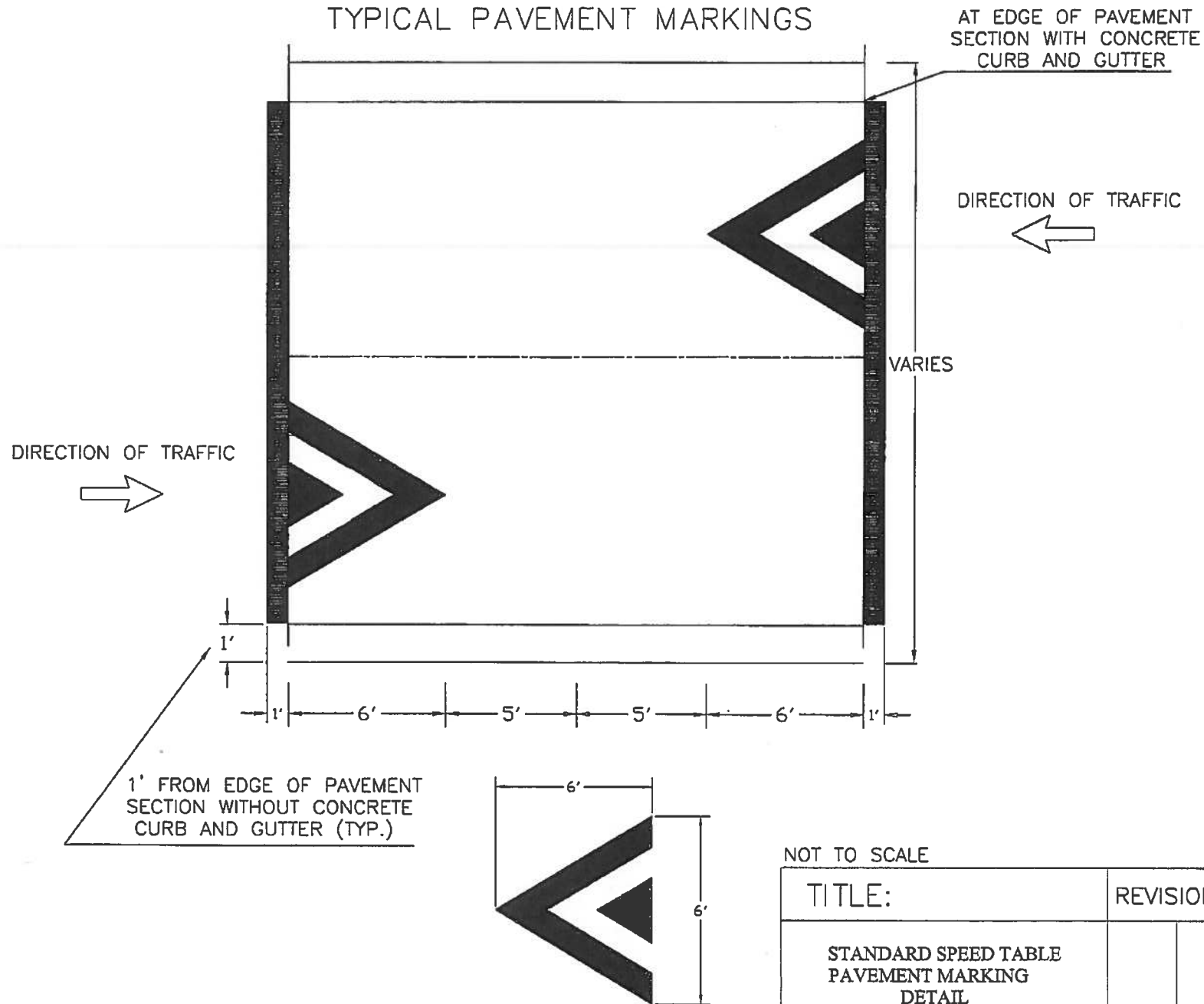
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ENGINEERING
STANDARD
DEPARTMENT
DETAILS

TYPICAL PAVEMENT MARKINGS



**ENGINEERING
STANDARD
DEPARTMENT
DETAILS**

NOT TO SCALE

TITLE:

REVISIONS

DET.NO.

STANDARD SPEED TABLE
PAVEMENT MARKING
DETAIL

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