

# The Traffic Engineer's Relationships With Local Officials, Boards and Commissions

## (Cities Less Than 100,000)

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The many subjects covered in the Street Utilization Conference constitute a comprehensive listing of engineering techniques available to the traffic engineer. There is ample evidence to show conclusively that street capacity, efficiency and safety can be achieved by implementation of these procedures. Frequently, however, the major obstacle to translating studies and plans into completed projects is obtaining necessary approval from public officials who are charged with the final decision-making responsibility. A traffic engineer cannot simply determine the action necessary to achieve a desirable result. He must also devote time and energy to the process of obtaining funds and approval from councils, mayors, or board and commission members.

It must be recognized that the traffic engineer who works with and through officials in smaller cities is not necessarily a full-time municipal employee. In fact, because of the shortage of trained traffic engineering personnel, few cities with a population of less than 50,000 are able to employ a professional traffic engineer on a full-time basis. Therefore, the subject of traffic engineering relations must be approached from two viewpoints: (a) a traffic engineer who is a full-time employee of the local government; and (b) a traffic engineer who serves as a consultant to the city, or who is affiliated with a regional governmental agency.

St. Louis County, Mo., has 95 incorporated cities, towns and villages ranging in population from 50 to 51,000. It provides an excellent challenge for the traffic engineer to establish working relationships with officials, boards and commissions. Almost every conceivable form of municipal government is represented. The following listing based on 1960 Census figures summarizes the number of cities in the county according to population:

Population Range	Number of Cities
Below 1,000	31
1,000 to 5,000	32
5,000 to 10,000	15
10,000 to 25,000	13
25,000 to 50,000	3
Over 50,000	1
Total	95

Regardless of the size of the community, the traffic engineer must work in cooperation with all three branches of government: legislative, administrative and judicial. Frequently, much can also be accomplished through the efforts of boards and committees whose functions may be limited to advisory services and the development of general policy. Table 1 contains a typical listing of the officials and agencies with whom the traffic engineer must cooperate.

In order to implement plans and programs for traffic engineering improvements, official and public support for the proposals must be obtained. A prerequisite to gaining this support is the development of effective communications with those officials,

TABLE 1  
OFFICIALS, BOARDS, COMMISSIONS AND ORGANIZATIONS

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<u>Legislative</u>
City Council, Village Board
County Board or Council
State Legislature
Regional or District Council
<u>Administrative</u>
Mayor, City Manager
City Department Heads
Director of Planning
Superintendent of Police
Director of Public Works
Fire Chief
Director of Budget
Director of Personnel
State Highway Department
State Highway Patrol
County Manager or Supervisor
County Highway Division
County Police Dept. or Sheriff's Office
County Planning Department
Regional Planning Agency
<u>Judicial</u>
Municipal and Magistrate Judges
Clerks of the Court
City Attorney, County Attorney
<u>Advisory</u>
Traffic Commission (City or County)
Planning and Zoning Commission (City or County)
State Highway Commission
Regional Planning Commission
State Legislative Committees
City Council Streets and Traffic Committee

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commissions or boards who may be instrumental in approving or disapproving the project. The methods which can be utilized in establishing the lines of communications include:

1. Formation of a Traffic Commission which may number among its membership officials such as the Chief of Police, the Director of Planning, and a member of the City Council. Such a commission should also have citizen participation in order to provide necessary public support.
2. Regular attendance and appropriate participation in official meetings of the legislative body and the administrative staff.
3. Frequent conferences and meetings with specific officials to discuss matters of mutual concern.
4. Membership and participation in area-wide coordinating agencies, such as the Municipal League and the Regional Planning Commission.
5. Formation of an organization which will bring together traffic engineers, enforcement officials, representatives of private industry, citizen groups, etc., who share a common interest; e. g., Traffic Engineering Association of Metropolitan St. Louis.

#### ASSISTANCE OF TRAFFIC COMMISSION

A traffic commission or committee can be especially helpful in the early stages of the development of a traffic engineering program. In this regard, an important project is the preparation and adoption of the Model Traffic Ordinance which establishes the authority and duties of the traffic engineer. The role of the St. Louis County Traffic Commission in revising its Traffic Code will be cited as an example.

The St. Louis County Traffic Commission is composed of nine citizen members, the Director of Planning, the Superintendent of Police and the Traffic Commissioner. In 1960, the Commission Chairman appointed a subcommittee to review the existing county traffic ordinances and prepare amendments necessary to bring the Traffic Code into conformance with the Model Traffic Ordinance. This subcommittee was assisted by a representative of the Department of Law and the Division of Traffic staff. After numerous meetings over a space of several months, an entirely new Traffic Code was submitted to the Commission.

After study by the entire Commission, the proposed Traffic Code was formally submitted to the County Council with the recommendation that it be enacted. After several months of study by the Council, the code was enacted into law. Adoption of this Model Traffic Legislation permitted the Division of Traffic to establish a master traffic control plan for all county-maintained streets and roads.

The Traffic Commission's role included assisting in drafting the ordinance, generating public support for its enactment, and informing individual council members of the importance of early enactment. Since 1962, several St. Louis County municipalities have reviewed their traffic laws and taken steps to bring them into conformance with the Model Traffic Ordinance.

A major step forward toward uniformity in traffic regulations in Missouri was made by the General Assembly in 1965. At that time the state legislature enacted the "Model Traffic Ordinance for Missouri Municipalities" which can be adopted by reference. The Traffic Commission wholeheartedly supported this legislation and has urged all St. Louis County municipalities to enact it at the earliest possible date.

#### PARTICIPATION IN OFFICIAL MEETINGS

When a traffic engineer is an employee of a municipal government, he must be an active participant in the regular meetings of the administrative staff and should regularly attend all meetings of the City Council. The staff meetings, in particular, will help to maintain the lines of communications with other departments of the city government. Examples of routine procedures which can be established are as follows:

1. All street improvement plans prepared by the Public Works Department are forwarded to the traffic engineering office for review and approval.
2. The traffic bureau of the Department of Police provides the traffic engineering office with a monthly summary of accident reports as tabulated by data processing equipment.
3. At regular intervals, the traffic engineering agency forwards results of its vehicular volume surveys, travel time, etc., to the Department of Planning and the street design division of the Department of Public Works.
4. When new traffic regulations are established, appropriate information is provided to the City Clerk for the reference of the Department of Law and the municipal court.

Every traffic engineer can cite numerous examples of instances where cooperation between departments of a city or county government has resulted in a substantial improvement in terms of increased capacity or safety. In 1964, the St. Louis County Division of Highways forwarded to the Division of Traffic plans for resurfacing an existing two-lane roadway to provide a 20-ft pavement and 8-ft shoulders. Traffic count information indicated that this street already carried 10,000 veh/day and that annual increases of 5 to 10 percent could be anticipated. Therefore, the Traffic Commissioner recommended that every possible effort be made to revise the roadway cross section to provide four lanes for moving traffic.

Following a field inspection with the highway engineer, the plans were revised to provide four lanes within the limits of the existing 60-ft right-of-way. Volume studies conducted in 1967 indicated that this street now carries in excess of 15,000 veh/day. Although it would be desirable to secure additional right-of-way and increase the lane width to a higher standard, the cooperation between the Division of Highways and the Division of Traffic in 1964 has resulted in the construction of a facility with greater traffic capacity than would otherwise have been possible.

#### REGULAR CONTACTS WITH MUNICIPAL OFFICIALS

In those instances where the traffic engineer is not a full-time employee of a single municipality, it is necessary that he arrange informal meetings with key municipal officials at appropriate intervals. In St. Louis County, the Traffic Commissioner engages in several phone conversations daily with traffic commission chairmen, city engineers, police traffic officials, councilmen, etc. Many times, it is convenient to meet with part-time officials at lunch in order to discuss current or future projects. Informal contacts of this nature can be used to lay the groundwork for improvements ranging from the simple act of establishing a parking regulation to a major road improvement.

The initiating, planning, design and construction of an intersection "spot improvement" in St. Louis County provide a case history of the value of informal contacts. The Chairman of the Citizens Traffic Commission of the City of Ladue frequently calls upon the County Division of Traffic for day-to-day advice on such matters as traffic signing and marking. During one such phone conversation, he indicated that his commission was concerned about traffic congestion at an intersection of two major arterial

streets at the edge of the community. The centerline of one street forms the dividing line between Ladue and the adjacent city, Richmond Heights. Although Ladue was interested in proceeding with the improvement, the commission was uncertain if Richmond Heights had any interest in the project.

Through a similar conversation with a Richmond Heights official, it was learned that the City Council also recognized the need for improvement and would seriously entertain entering into a joint project. The Division of Traffic then offered its services in preparing a preliminary geometric plan of improvements needed to achieve necessary capacity.

After study and review of the preliminary plans, a consulting engineering firm was engaged to prepare detailed construction plans. At this stage, the county government initiated a new "Urban Road Program" whereby county road funds were made available for projects in municipalities on a cost-sharing basis. The two cities immediately requested the County to participate in the intersection "spot improvement."

The actual construction of the project was initiated and completed in the summer of 1966. The improvement included the following features:

1. Widening the four-lane, east-west arterial street to provide a separate left-turn storage lane on both approaches.
2. The addition of a "Right Turn Only" lane and channelizing island on the south approach to the intersection.
3. The construction of an additional lane for through and right-turning traffic on the north approach.
4. Revision of signal phasing from a three-phase operation to a basic two-phase system with a left-turn minor phase.

A before-and-after capacity analysis indicates that the intersection improvement has produced the following results:

<u>Approach</u>	<u>Capacity Increase (%)</u>
East	61
West	150
North	73
South	196

Implementation of this project required action by two city councils and the legislative body of St. Louis County. Obviously, when three agencies attempt to work together, there will be many opportunities for the entire proposal to become stalled and possibly canceled because of procedural problems. The continuing contacts by the Division of Traffic and local officials was apparently an important factor in the successful completion of this improvement.

#### USE OF COORDINATING AGENCIES

In a metropolitan area composed of many small cities, such traffic engineering objectives as uniformity in control devices and regulations can only be achieved through joint action by many officials and governments. By working through the St. Louis County Municipal League, a notable improvement in the uniformity of speed limits on residential streets has been achieved in the St. Louis Metropolitan area. As recently as 1961, residential speed limits in the 95 incorporated cities could be 15, 20, 25 or 30 mph. Of greater importance, there was no single value which was in effect in a majority of the area.

Following a series of speed surveys conducted according to proper traffic engineering procedures, University City amended its Traffic Code to provide for a basic 25-mph speed limit on all streets except those which were designated as "through streets." Speed regulations on through streets were determined on the basis of engineering and traffic surveys and established at 30 mph, 35 mph, or higher where conditions permitted.

Shortly thereafter, the City of St. Louis, which adjoins St. Louis County, adopted a basic 25-mph residential speed limit. The revised St. Louis County Traffic Code, which was enacted in July 1962, also provided for a 25-mph residential speed limit in the entire unincorporated area of St. Louis County. The Traffic Engineering Association of Metropolitan St. Louis (TEAM) endorsed the standard speed limit concept and the Division of Traffic with the cooperation of the Municipal League began efforts to extend this program to all 95 communities in St. Louis County.

The engineering staff of the Division of Traffic is always represented at the monthly meeting of the Municipal League. These gatherings provide an excellent opportunity to become acquainted with mayors, aldermen, city managers and other officials. For several years, the Traffic Commissioner served on the Municipal League Highway and Traffic Committee. On three occasions during the past five years, the Division of Traffic presented a special program which related to uniformity in traffic regulations and devices.

The methods used in advancing the concept of a uniform basic speed limit may be illustrated by review of the "conversion" of one small village. A newly elected Trustee of this village happened to read an article on proper methods of establishing speed limits which had been prepared by the Division of Traffic for the Missouri Municipal League Magazine. He contacted the Division office asking for help in revising his village's traffic laws, and received an offer to collect necessary data, analyze it and prepare a report with appropriate recommendations.

The Trustee then secured formal approval for the study from the Village Board and the speed limit survey was initiated. After data had been collected, tabulated and analyzed, and preliminary conclusions drawn, a meeting was held with two members of the Board of Trustees to outline the proposals.

Since this was a small village, the meeting was concluded with a field trip to each of the sites where speed studies were made. During the course of the field trip, it was noted that the group was traveling at a speed of 30 mph on a street which had an unrealistically low 20-mph speed limit. This incident helped convince the two Trustees that the recommendations were not only based on scientific procedures but were also reasonable and proper.

Subsequently, the written report was formally submitted to the Village Board of Trustees. Within a short time, the Village Traffic Code was amended to provide for the basic residential speed limit of 25 mph. In addition, 30-mph and 35-mph speed regulations were established on arterial streets within the village.

As a result of this continuing program, over 75 percent of the 1,600,000 persons living in St. Louis and St. Louis County now live in areas which have enacted the standard speed limit program endorsed by the St. Louis County Municipal League and TEAM. Furthermore, over 90 percent of the land area of St. Louis and St. Louis County lies within the boundaries of these jurisdictions. The gains which have been made toward complete uniformity in speed regulations have reduced driver confusion and obtained much greater voluntary compliance with speed regulations. Table 2 gives the results of before and after speed studies on several streets in St. Louis County.

#### FORMATION OF A TRAFFIC IMPROVEMENT ORGANIZATION

This method of dealing with officials and official groups can be applied most successfully in metropolitan areas. In the case of the single, isolated city, the traffic commission and administrative staff should be the vehicles for bringing together the traffic engineer and key officials. In a metropolitan area, an organization encompassing traffic officials from all governmental jurisdictions is necessary to achieve coordination.

In St. Louis, a group originally known as Metropolitan St. Louis Traffic Engineers began holding regular meetings in 1959. Subsequently, the membership of the organization was expanded to include city engineers, police traffic officers, representatives of industry and citizen groups with an interest in the furtherance of traffic engineering. A new name, the Traffic Engineering Association of Metropolitan St. Louis, and a most appropriate insignia "TEAM" was adopted.

The TEAM organization holds monthly luncheon meetings to hear guest speakers on pertinent traffic topics. These gatherings also provide an occasion for area traffic

TABLE 2  
EFFECT OF INCREASED SPEED LIMITS IN ST. LOUIS COUNTY

Street or Road	Posted Speed Limit (mph)		50th Percentile Speed (mph)			85th Percentile Speed (mph)			Percent Above Speed Limit	
	Before	After	Before	After	Change	Before	After	Change	Before	After
Big Bend Road	30	35	32	34	+2	36	38	+2	69	31
Craig Road	30	35	34	33	-1	43	38	-5	64	35
Larimore Road	30	35	30	30	0	35	36	+1	48	20
Lucas-Hunt Road	30	35	32	32	0	35	35	0	70	15
Redman Avenue	30	35	35	34	-1	41	39	-2	76	35
Rock Hill Road	30	35	32	34	+2	37	39	+2	67	22
Schuetz Road	30	35	33	33	0	38	38	0	61	28

Note: The 50th Percentile and 85th Percentile values are the speeds at or below which 50 percent and 85 percent of all vehicles observed were traveling.

officials to become acquainted and initiate joint action on mutual problems. In 1961, TEAM sponsored the first workshop on the newly published Manual on Uniform Traffic Control Devices. This has become an annual event featuring prominent national speakers and attracting an average attendance of 100 persons.

TEAM also establishes technical committees to recommend programs and standards for uniformity in traffic control devices and regulations. The first important project backed by this organization was the Uniform Street Name Sign Program. TEAM endorsed the concept that all street name signs should be fully reflectorized with a white legend on a green background. The organization prepared standard specifications for the design and installation of street name signs and distributed copies of the booklet to several hundred municipal officials.

Today, the City of St. Louis, St. Louis County, East St. Louis and more than 40 of the largest municipalities have installed the standard green and white reflectorized street name signs. In fact, a recent tabulation indicates that more than 90 percent of the land area of St. Louis and St. Louis County is now included within the Uniform Street Name Sign Program. Other individuals and organizations such as the St. Louis County Municipal League contributed greatly to the success of this program. The original concept was initiated, however, among the members of TEAM.

In 1966, a TEAM technical committee produced a Uniform Design Standard booklet for residential subdivision entrances. Several municipalities and the county government have already adopted the requirements of this standard in their regulations which govern the construction of subdivision entrances. Another semiannual TEAM activity is the preparation of a state traffic safety legislative program.

### CONCLUSIONS

In reviewing the accomplishments of this traffic engineering organization, its principal objective can be summarized as enabling engineers, officials and citizens who are devoted to the furtherance of traffic engineering to become better acquainted. In this way, a basis for a coordinated attack on traffic safety and congestion problems is established.

Effective communication with officials, commissions or boards is an essential ingredient in the establishment of a successful traffic engineering improvement program. The traffic engineer should cooperate with and utilize the services of traffic commissions, fellow governmental officials, and coordinating organizations and agencies in achieving the desired goal of safe, efficient and economical traffic movement.

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