CHAPTER 10 GENERAL POLICY AND PROGRAM RECOMMENDATIONS

10.1 RIGHT-OF-WAY ISSUES

10.1.1 Right-of-Way Protection in Advance of Need

Potential right-of-way needs are best planned for and protected well in advance of need. The closer land is to development the more valuable it becomes. The governmental entity responsible for each SRA should place a high priority on the protection or acquisition of the amount of right-of-way needed for the ultimate desired improvement.

It is recommended that changes be considered in the State enabling statutes for the Illinois Department of Transportation (IDOT) and a high degree of cooperation from local governments be solicited. Long range protection of right-of-way appears to be hampered by existing statutes. IDOT "shall make a survey and prepare a map showing the location and approximate widths of the rights of way need for future additions to the highway system" (Illinois Revised Statutes Chapter 121 Sec 4-510). Owners must notify IDOT 60 days before development.

Problems arise when purchase of property is required fairly quickly after it is proposed for development. (IDOT is allowed 45 days to respond to the owner notification and 120 days after that to actually buy or begin to condemn the land.) This requirement generates a potential cost burden upon adoption of a right-of-way. Thus, if right-of-way is mapped after each phase of the SRA project, IDOT could be required to buy a substantial amount of land soon thereafter. This capital expense could occur decades in advance of planned construction and with no absolute guarantee that the right-of-way would be needed.

State law would appear to allow counties and municipalities to acquire right-of-way (IRS Chapter 121 Sec 4-510). It appears that counties and municipalities can require dedications as part of the subdivision process. It is recommended that counties and municipalities adopt dedication requirements for the SRA as part of their subdivision process regardless of the roadway ownership. It is further recommended that the Official Map be studied as the appropriate tool for implementing the requirements.

10.1.2 The Municipal Official Map

The municipal official map is a logical vehicle to protect SRA right-of-way as soon as future right-of-way needs are determined. Municipalities appear to have the power to adopt an Official Map. This map is prepared with the comprehensive plan and may be adopted by ordinance. The map "shall specifically state standard requirements of the municipality relating to size of streets..." (IRS Chapter 24, Section 11-12-6). When subdivision plats are filed, they appear to be required to meet those standards. This would indicate that municipalities can and should include the SRA right-of-way in their official maps. When land is subdivided, SRA right-of-way would be part of the plat.

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10.1.3 Real Estate Options for Right-of-Way

It would appear that existing authority in the Illinois Revised Statutes to use real estate options as a holding or banking device for right-of-way is unclear. This tool would be particularly valuable for land expected to remain undeveloped for at least five years. For payment of a small percentage of the current value of the land, an option is an agreement with the landowner that allows the acquirer to buy the land at any time during the period of the option for a price set at the beginning of the option. It is recommended this strategy be thoroughly explored and enabling legislation considered if needed.

10.2 ACCESS POLICIES

10.2.1 Ingress/Egress for Adjacent Property

IRS Chapter 121 Section 4-210 is apparently the only statute enabling IDOT to regulate, in any way, ingress and egress along an SRA. This seems to permit only design review. Thus, IDOT may not have control over how many points of ingress/egress there area.

It is recommended that:

- The IRS be revised to allow IDOT to refuse direct access permits to the State highway as long as other reasonable access to the transportation network exists, and
- IDOT work with municipalities to insure spacing standards for access to SRAs are included in local subdivision regulations.

Both should be pursued to insure all SRA routes are protected from unregulated access.

10.2.2 Ingress/Egress to Adjacent Property

It is recommended that limited easements be considered to route certain right-of-way uses to corridors outside of the SRA right-of-way. Such uses might include transit corridors and stops, bikeways, parkways, and sidewalks. The cost of these easements can be expected to vary directly with the burden/benefit to the property owner.

The cooperation of local governments during the subdivision process may help assure such easements would be more of a benefit than a burden. For instance, if a sidewalk and parkway were considered part of a landscaping requirement in a retail development, the owner could bring shoppers closer to the stores, meet the requirements of the subdivision ordinance, and relieve the SRA right-of-way of certain uses.

The cost for such easements could effectively be the same as appropriating funds for physical roadway widening, because the recovered right-of-way could be used for lanes of traffic. Costs should not exceed those of purchase of continuous roadway or the limited easement loses it value as an alternative.

10.3 EXTRA-JURISDICTIONAL PROJECT PARTICIPATION

10.3.1 Non-State SRA Routes

Not all SRA routes are State highways. Local governments receive a motor fuel tax allotment based on their population, but these allotments may not be consistent with the regional transportation burden they are asked to accommodate. This would be particularly true for small communities located along routes connecting major employment and residential centers.

It is recommended IDOT consider participation in improvements to these route segments for the benefit of the entire system. Such cost sharing may encourage these local governments to support local changes needed to implement improvement recommendations. It is also recommended IDOT explore with local governments in the Northeastern Illinois region the possibilities of alternate motor fuel tax allotment formulae that would recognize the regional nature of the SRA system.

10.3.2 Non-SRA Arterial Routes

Normally, the State does not participate in roadway improvements outside State rights-of-way. There are selected instances where such participation would be cost effective and have positive effects on the SRA system. Examples of such instances include offset intersections and older community commercial centers.

Offset roadways may occur where non-SRA arterial routes intersect the SRA at different points in the route. An example of this situation is Busch and Deerfield Roads as they terminate at Milwaukee Avenue (IL 21), an SRA route. East-west traffic continuing through from one offset arterial to another must travel a portion of Milwaukee Avenue.

A non-SRA improvement linking Busch with Deerfield for east-west travelers would significantly reduce congestion along this segment of Milwaukee Avenue. Such a link could be built on undeveloped land rather than widening the developed right-of-way along Milwaukee. This link might also encourage more east-west travelers to use the route thereby relieving Lake-Cook Road and Half Day Road, both parallel SRA routes, of some congestion.

The City of McHenry is an example of a community with an older commercial center. IL 120 and IL 31 meet and pass through the commercial center along Elm Street. The rights-of-way are relatively narrow and setbacks include only the sidewalk and parking.

Rerouting IL 120 and/or IL 31 around the heart of McHenry would maintain the commercial center and greatly relieve congestion. Non-State routes in the area might form segments which could be considered for bypasses in such situations.

10.4 TRAFFIC MANAGEMENT POLICIES

10.4.1 SRA Route Marker Designations

Consistent and distinctive SRA route markers can create an awareness of the SRA routes as a distinct network. Unique SRA plates could be created, similar in size to the standard cardinal direction plates, and would be used in conjunction with the existing standard route number markers. Drivers would come to expect fewer impediments for through traffic and some consistency of ingress/egress patterns. This awareness should reduce driver confusion and may help differentiate SRA routes from local streets. As part of an overall system, SRA route markers should be placed at appropriate intervals and at junctions with expressways and other major arterials.

10.4.2 Policy for New Traffic Signals

Efficiency of traffic movement is most often determined by the spacing and timing of traffic signals. New signals should not degrade existing signal progression.

Signal warrants for the SRA routes should be more stringent than for other arterials. Current signal warrants have resulted in placements which are dysfunctional to the efficient progression of through traffic. There are now 11 signal warrants in the <u>Manual on Uniform Traffic Control Devices</u> (MUTCD). One of these warrants could probably be met at every intersection along an SRA, especially in the urban and suburban areas. These warrants are:

Warrant 1 - Minimum Vehicular Volume

Warrant 2 - Interruption of Continuous Flow

Warrant 3 - Minimum Pedestrian Volume

Warrant 4 - School Crossings

Warrant 5 - Progressive Movement

Warrant 6 - Accident Experience

Warrant 7 - Systems

Warrant 8 - Combination of Warrants

Warrant 9 - Four Hour Volumes

Warrant 10 - Peak Hour Delay

Warrant 11 - Peak Hour Volume

Consideration should be given to dropping some warrant entirely for SRA routes, such as warrants 9, 10, 11. Others should be changed for SRA routes. For example, cross street delay criteria for Warrant 2 should reflect much longer delays. Warrants, 1, 2, 8, and 11 allow for the reduction of the necessary traffic volumes if more than 15 percent of the drivers are exceeding 40 miles per hour, and should also be eliminated for SRA routes.

New signal installations along SRA routes should meet a standard for intersection spacing. New signals should be spaced no less than 1,320 feet on urban and suburban routes and no less than one-half mile on rural routes. Where these minimums are not workable, the new signal should be placed where it will have a minimal impact on signal progression. The time available for progression should be at least 30 percent of the available green time at the critical intersection.

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New signal installation proposals should also be required to include a complete review of other reasonable alternatives. Such alternatives should be employed whenever possible.

10.4.3 Review of Warrants for Existing Traffic Signals

Existing signals should be periodically reviewed to insure they are still warranted. As land use changes and redevelopment occurs, different circulation patterns emerge. This result is particularly likely where local governments adopt more explicit site design criteria for access to the SRA. When traffic signals are no longer warranted, they should be removed.

10.4.4 Lighting

Each appropriate highway jurisdiction should provide lighting for SRA routes. Headlights alone do not provide proper visibility. Urban and suburban SRA routes should be continuously lighted. Rural SRA routes should be lighted at intersections and interchanges.

10.4.5 Incident Management

Efficient response to accidents and other incidents will reduce their impact on traffic flows. It is recommended that an area-wide incident response system be developed in coordination with local law enforcement officials and media. This system could be quite similar to that of the Illinois Expressways. Incidents could be reported to a central clearinghouse either by law enforcement officials or drivers with car phones. Incident patron teams, SRA "Minutemen," would reduce response times. Radio and television traffic reports could include construction and incident delays on the SRA system in their coverage. Such traffic reports should include alternative routing suggestions.

10.5 ROADWAY MAINTENANCE

10.5.1 Periodic Maintenance

An inter-agency, comprehensive program for maintenance evaluation, scheduling and performance should be established. This program should work to ensure that all SRA routes will function at their highest level and that safety and efficiency will not be compromised. It is recommended that maintenance work be scheduled for off-peak times or at night whenever possible. This would reduce or prevent disruption of peak traffic flows. Increased lighting levels may be required for night maintenance.

10.5.2 Maintenance and Construction

The respective SRA jurisdictional bodies should establish policies mandating that the SRA routes have the highest priority for routine and seasonal maintenance, such as patching and snow removal, after the expressway system. It is suggested that programming of construction improvements on the SRA and adjacent routes be coordinated to ensure sufficient system capacity remains during construction.

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10.5.3 Regional Construction Map

IDOT and the other highway jurisdictional agencies should jointly produce a regional construction map which highlights on-going and scheduled construction projects on the expressway system and SRA network. This regional construction map should be updated quarterly.

As technological advances are made, this regional construction map could be integrated into the driver information systems discussed in Section 7.2.2.

10.6 ENFORCEMENT

10.6.1 Parking

On some SRA routes, parking may be restricted during peak travel periods. Parking restrictions are only effective when they are enforced. Local governments may not have the resources necessary for enforcement, and consideration should be given to non-local funding for this purpose where appropriate. Enforcement should include a corps of officers who would patrol heavily congested areas. Tow trucks should be available during peak periods.

10.6.2 Freight Loading

Providing funds for enforcement of peak-hour loading restrictions is necessary and consistent with the recommendations on parking enforcement above.

10.7 DEMAND MANAGEMENT

Demand management and related activities to improve transit are also components of Operation Green Light. The focus of these components is to reduce the number of vehicles on the roadway by increasing the number of people in each vehicle. This effort is very important to SRA.

Demand management is a particularly difficult task in areas outside of the Chicago central area. The intense concentration of workers in the central area, expensive parking and history of travel by mass transit contribute to commuter support of the readily available transit and make ridesharing more attractive.

It is recommended that demand management programs recognize and address the suburban commuter perspective. Safety, convenience, flexibility, and reliability are all factors contributing to the choice of the individual auto. Techniques for increasing the rate of participation might include:

- Flextime;
- Employer-based open houses to introduce potential ridesharers;
- Residential complex, neighborhood, or small community based efforts;

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- Emergency cab service for vanpoolers;
- Preferential facilities, especially parking, for high occupancy vehicles and bicycles; and
- One- or two-day-a-week ridesharing.

It is further recommended that jurisdictions in the Northeastern Illinois region consider disincentives for personal commuting and discretionary commercial travel during peak periods which pass on to those vehicle operators the actual cost of travel during those periods. Techniques being explored by other states include a tax levy for each parking space and mandatory parking charges.

BIBLIOGRAPHY

Chicago Area Transportation Study, 2010 Transportation System Development Plan , Chicago: 1990.
, Transit/Highways Task Force, Bus Priority: Traffic Signal Preemption , Chicago: December 1989.
, Commuter Station Access, Chicago: December 1989.
, Downtown Commuter Station Access , Chicago: December 1989.
, High Occupancy Vehicle Lanes/Special Access , Chicago: December 1989.
, Passenger Convenience Issues/Transfer Facilities, Chicago: December 1989.
, Roadway Operations Task Force, Innovative Traffic Engineering Techniques, Geometric Design Considerations, Chicago: June 1990.
, Driver Information Systems/Traffic Signal Systems/Incident Management on Arterial Roadways, Chicago: September 1989.
, Demand Management Task Force, Ridesharing, Alternative Work Schedules, Transportation Management Groups, Chicago: June 1990.
Illinois Department of Transportation, Ecological and Natural Resources Manual , Springfield, IL: Rev. November 1989.
, Illinois Manual on Uniform Traffic Control Devices, Springfield, IL: 1988.
, Traffic Noise and Vibration Manual, Springfield, IL.
, Bureau of Bridges and Structures, Drainage Manual , Springfield, IL: Rev. 1983.
, Bureau of Design, Design Manual , Springfield, IL: Rev. May 1990.

BIBLIOGRAPHY (cont.)

, Highway Standards Manual , Springfield, IL.
, Soils Manual, Springfield, IL.
, Bureau of Local Roads and Streets, Administrative Policies Manual , Springfield, IL: Rev. Fel 1980.
, Bureau of Location and Environment, Air Quality Manual, Springfield, IL: Rev. May 1982.
,"Policy on the Bureau of Location and Environment Manual", Springfield, IL.
, Bureau of Programming, "Phase I Consultant Advisories", Springfield, IL.
Leisch, Joel P., "Innovation of Diamond Interchanges in the Urban Environment", ITE Journal, November 1985, pp. 24-26.
Messer, C.J. and Bonneson, J.A., "A National Survey of Single-Point Urban Interchanges", Report No. TTI-2-18-88-1148-1, Texas Transportation Institute, College Station, Texas: March 1989.
Metcalf, Garry W., "Raised Medians and/or Flush Medians", Compendium of Technical Papers, Annual Meeting, Institute of Traffic Engineers, 1989, pp. 116-118.
National Research Council, Transportation Research Board, Highway Capacity Manual, Special Report 209 , Washington, D.C.: 1985.
Northeastern Illinois Planning Commission, Operation Green Light, Land Use Working Group of the Local Development Policy Task Force, "Issue Paper on Job-Housing Balancing and Regional Mobility", Chicago: Rev. May 17, 1990.
, "Issue Paper on Regional Centers", Draft, Chicago: April 20, 1990.
, "Issue Paper on Right-of-Way Protection", Chicago: March 21, 1990.
, Site Design and Circulation Working Group of the Local Development Policy Task Force, "Development Guidelines That Promote Bicycle Use", Draft Issue Paper, Chicago: March 29, 1990.
, "Development Guidelines That Promote Pedestrian Access and Safety", Draft Issue Paper, Chicago: May 15, 1990.
, "Access Management Policy", Chicago: August, 1990.
Pace Suburban Bus Service, Pace Development Guidelines, Arlington Heights, IL: December 1989.

BIBLIOGRAPHY (cont.)

- Sacramento Area Council of Governments/Metropolitan Transportation Commission, "Strategic Transportation Planning Study, Summary Report", Sacramento, CA: 1989.
- State Highway and Transportation Officials, American Association of, A Policy on Geometric Design of Highways and Streets, Washington, D.C.: 1984.
- U.S. Department of Transportation, Federal Highway Administration, **Manual on Uniform Traffic**Control Devices for Streets and Highways, Washington, D.C.: 1988.

GLOSSARY

- **Actuation**. The sensing or detection of a vehicle as it passes over a detector in the roadway pavement for the purpose of communicating information about traffic flow to a master traffic signal controller.
- Class II Truck Route. Any highway, other than an interstate highway or controlled access highway with four or more lanes, which is designated as such and capable of handling size and weight limits for trucks.
- **Delineators**. A light-reflecting device mounted at the side of a roadway, in series with others, to indicate the alignment of the roadway.
- **Demand Management.** Techniques such as carpooling, staggered work hours and controlled development which are employed to reduce the number of vehicles utilizing a roadway.
- **Grade Separation**. A bridge for a crossing of a highway, railroad, pedestrian or bike path over another highway.
- **High Occupancy Vehicle (HOV)**. Any vehicle which is occupied by at least a specified minimum number of passengers.
- Intersection Triangle. The triangular configuration that is formed when a diagonal arterial street intersects two streets which are part of the normal grid street pattern.
- **Level of Service**. A qualitative measure used to describe the operating conditions of a roadway.
- **Median Control**. The use of a raised median curb to direct left turning movements to desired locations and to reduce conflicts between oncoming vehicles.
- **Signal Network (System)**. A group of traffic signals along an arterial roadway or in a grid patten which are able to communicate to a master traffic controller and operate in coordination.
- WB-50 (60) Design Vehicle. A large semi-trailer vehicle with a wheelbase dimension of 50 (60) feet which is used to establish the minimum requirements of roadway design so that the roadway can safely accommodate such a vehicle.