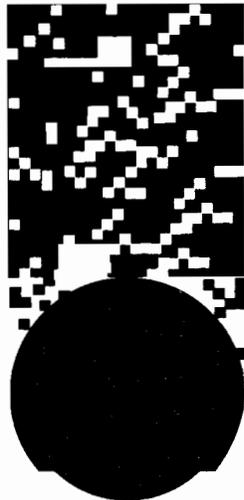


# ***Strategic Regional Arterial***

**Illinois 137/Peterson Road  
Illinois 83 to Amstutz Highway**



**Operation  
GreenLight**

**Illinois Department of Transportation  
April 1996**

## Foreword

The Illinois 137/Peterson Road corridor serves as a regional east-west connection between Illinois 83 and the Amstutz Highway in central Lake County. CH2M HILL has prepared a study of this corridor for the Illinois Department of Transportation and Strategic Regional Arterial Subcommittee of the Work Program Committee of the Chicago Area Transportation Study.

As an east-west corridor, Illinois 137/Peterson Road supports regional and local travel. It serves as an arterial roadway, and is crossed by two SRA routes, several numbered routes and the Amstutz Highway. This report is one element of a long-range plan for all routes in the SRA network. Together, the route studies constitute a comprehensive, coordinated plan for the entire SRA network.

This report contains an analysis of the three segments of the corridor, including existing physical characteristics and safety, traffic, and transit data. It lays the framework for long-range planning for the corridor, taking into account future traffic activity, land use, environmental considerations and constraints, and community concerns. It presents geometric and operational recommendations, and notes unique features or special roadway design needs. Projected costs are based on unit-generalized costs as furnished by IDOT for SRA planning projects.

*Illinois 137/  
Peterson Road SRA*

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**Summary of  
Recommendations**

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## **Summary of Recommendations**

For study purposes, the Illinois 137/Peterson Road Strategic Regional Arterial (SRA) was divided into three segments (see Exhibit S-1, attached following this section). The following is a summary of the major recommendations for each segment.

### **SRA Segment I: Illinois 83 to Illinois 137 Interchange (1.7 Miles)**

- From just east of Illinois 83 to east of Harris Road, three through lanes in each direction with a 30-foot raised median, closed drainage with curb and gutter, and 10-foot bicycle path along the south side of the roadway, within 130 to 210 feet of right-of-way. The typical section would require 70 to 130 feet of additional right-of-way.
- East of Harris Road to west of U.S. 45, two lanes in each direction of travel, with a raised 18-foot median, closed drainage with curb and gutter, and a 10-foot bicycle path along the south side of the roadway, within 116 feet of right-of-way.
- West of U.S. 45 to west of Illinois 137, three lanes in each direction with a 30-foot raised median, closed drainage with curb and gutter, and a 10-foot bicycle path along the south side of the roadway within 120 feet of right-of-way.
- Realign Peterson Road just west of the Illinois 137 interchange to facilitate implementation of a frontage road to serve existing development to the north.
- Relocate Illinois 83 to accommodate proposed FAP 342.

- Incorporate new interchange to accommodate the proposed FAP 342.
- Extend Midlothian Road to the North and connect Harris Road to Midlothian Road (per Lake County's long-range plan).
- Extend Harris Road to the south to serve future development as warranted.
- Develop new local access point 1,00 feet east of the U.S. 45 intersection to serve future development.
- New potential signalized intersections are proposed along Peterson Road at five locations, including relocated Illinois 83, proposed FAP 342 ramp terminals, Midlothian Road, Harris Road and the new local access point.
- Capacity and channelization improvements are recommended at Peterson Road intersections with relocated Illinois 83, Midlothian Road and U.S. 45.

### **SRA Segment II-Illinois 137 Interchange to St. Marys Road**

- From Peterson Road to a point east of Butterfield Road, three lanes in each direction of travel, an 18-foot raised median, closed drainage with curb and gutter, and a 10-foot bicycle path, within 150 feet of right-of-way. This typical section would require no additional right-of-way.
- From east of Butterfield Road to east of Bell Lane, the existing cross section consisting of two lanes in each direction of travel, an 18-foot

raised, grass median, open drainage along the outside, within 150 feet of right-of-way.

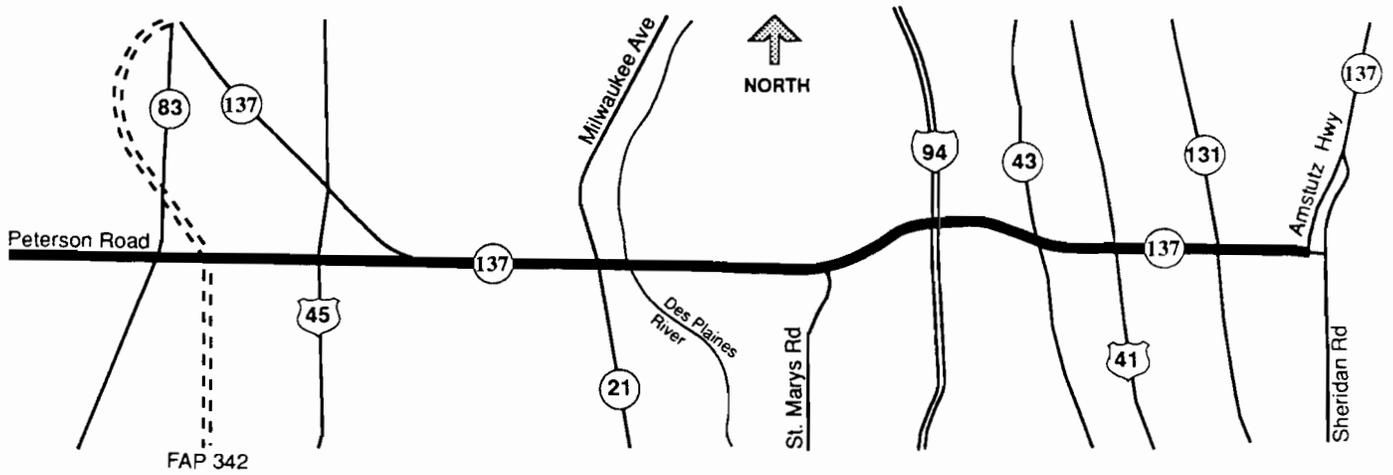
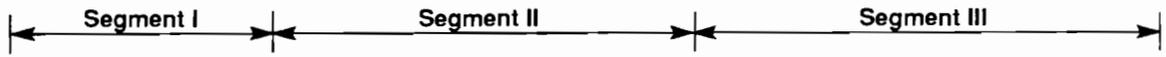
- From west of Illinois 21 to St. Marys Road, the existing cross section consisting of two lanes in each direction of travel, a 12-foot flush median, and closed drainage, within 150 feet of right-of-way.
- New potential signalized intersections are proposed along Illinois 137 at five locations, including a new local access point (located 1,150 feet east of Butterfield Road), Cass Road, Des Plaines Drive, River Road, and Oak Grove Road.
- Realign and relocate Illinois 137 intersections with Des Plaines Drive and River Road to remove the existing offset intersections.
- Capacity and channelization improvements are recommended at Butterfield Road, Illinois 21 (consistent with ongoing Phase I studies), Des Plaines Drive, River Road, Oak Grove Road, and St. Marys Road.

### **SRA Segment III-St. Marys Road to Amstutz Highway**

- From St. Marys Road to O'Plaine Road, the existing cross section consisting of two lanes in each direction of travel, a 12-foot flush median, closed drainage, and a 10-foot bicycle path within 90 feet of right-of-way. Requires acquisition of 10 additional feet from the south side.
- From O'Plaine Road through the I-94 interchange area, three lanes in each direction of travel, a 42-foot raised median, with closed drainage, curb and

gutter, within 170 to 330 feet of right-of-way (cross section would be consistent with current tollway plans).

- From east of I-94 to east of U.S. 41, three lanes in each direction of travel, a 30-foot raised median, closed drainage, within 140 feet of right-of-way. This typical section is to be consistent with ongoing Phase I studies in the area and would require an additional 30 feet of right-of-way from the north side of Illinois 137.
- From East of U.S. 41 to Great Lakes Drive, three lanes in each direction of travel, an 18-foot raised median, closed drainage, curb and gutter, within 120 feet of right. This typical section would require an additional 10 to 15 feet of right-of-way along the north side of Illinois 137.
- East of Great Lakes Drive to the Amstutz Highway, the existing cross section would remain. This would consist of three lanes in each direction of travel (except eastbound from Ray Street to the Amstutz), a raised 18- to 30-foot median, closed drainage, curb and gutter, within 130 feet of right-of-way.
- One new potential signalized intersection is proposed at a new access drive located 1,760 feet east of Illinois 43.
- Improvements are recommended at the Illinois 137 interchange with I-94, including the development of a new ramp pair to the north. This recommendation is consistent with current Illinois State Toll Highway Authority Plans.
- Capacity and channelization improvements are recommended at Illinois 43, the U.S. 41 SRA, Lewis Avenue, and Ray Street.



LOCATION MAP ILLINOIS 137/PETERSON RD



# Strategic Regional Arterial Study Illinois 137/Peterson Road

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*Illinois 137/  
Peterson Road SRA*

**Chapter I**

**Introduction**

## Chapter I Introduction

The 2010 Transportation System Development Plan adopted by the Chicago Area Transportation Study (CATS) and the Northeastern Illinois Planning Commission (NIPC) recognizes that not all long-distance highway travel can be handled by the expressway system. Realizing that the arterial system will have to carry some long-distance trips, the 2010 Plan designated a system of Strategic Regional Arterials (SRAs) to supplement the expressway system.

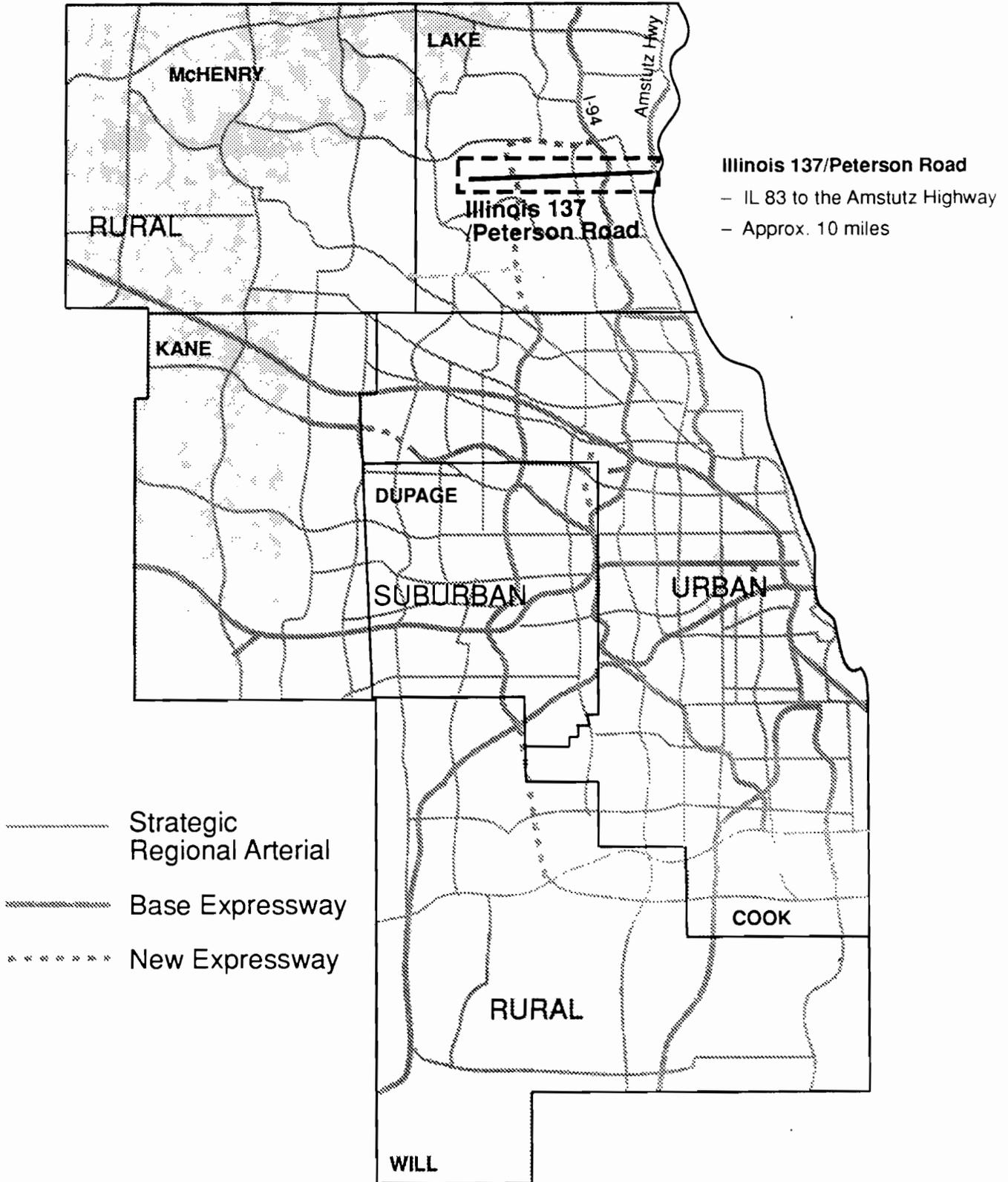
The SRA system is a 1,340-mile network of existing roads in the northeastern Illinois region. They create a network of 66 routes intended to serve as a second tier to the expressway system. The regional highway system, consisting of existing and planned expressways and SRAs, is shown in Exhibit 1.

Identification of routes that comprise the SRA system was determined based on the projected levels of future travel demand within different parts of the region, with spacing ranging from about 3 miles apart in the more densely developed areas to about 8 miles apart in predominantly rural areas. This roadway network traverses significantly different land uses that determine how various types of routes may function in the system. Three types of SRA routes have been designated, corresponding to three roadway environments:

- Urban routes
- Suburban routes
- Rural routes

The designation of route types within the overall SRA system reflects the expected density of long-range development within the different portions of the region.

This report is concerned with Illinois 137/Peterson Road, which has been designated a SRA corridor from Illinois 83 to the Amstutz Highway. The corridor is highlighted in Exhibit 1. The Illinois 137/Peterson Road SRA is located within Lake County, and has been designated a suburban SRA.



# ROUTE TYPES ON THE STRATEGIC REGIONAL ARTERIAL SYSTEM

## SRA Planning Objectives

The SRA system is intended to accomplish certain specific objectives within the overall regional transportation system:

- Supplement an expanded expressway system by:
  - Improving access to expressways
  - Providing alternatives for some portions of expressway travel
  - Providing a lower-cost substitute for expressways in some corridors
- Enhance public transportation and personal mobility by:
  - Improving access to rail transit stations
  - Improving operating conditions for buses and other transit vehicles
  - Identifying opportunities for future transit facilities
  - Maintaining pedestrian accessibility
- Accommodate commercial vehicle traffic by:
  - Improving structural clearances
  - Maximizing through traffic movement

## **SRA Design Concept**

A report on design concepts for the SRA system, prepared by Harland Bartholomew & Associates, Inc., was endorsed by the CATS Policy Committee. These concepts have been used as a guide, but not as a policy, in developing the Illinois 137/Peterson Road improvement plan described in this report.

### **Organization of the Report**

This report presents a summary of the SRA planning study for the Illinois 137/Peterson Road corridor. It is organized as follows:

- **Existing Conditions (Chapter II)**
  - This section describes the existing physical characteristics, traffic operation, safety, transit operations, environmental concerns, and land uses in the Illinois 137/Peterson Road corridor.
  
- **Planning Framework (Chapter III)**
  - This section describes the framework within which the recommended SRA plan will be situated. The chapter includes a description of route design characteristics, design criteria, travel forecasts, future land use zoning and development, future roadway and transit planning, future areas of concern, and a summary of the roadway recommendations.
  
- **Recommended SRA Plan (Chapter IV)**
  - This section describes the recommended SRA corridor plan including lane arrangements, right-of-way, arterial operations and level-of-service summary, intersection capacity planning analysis, construction and right-of-way costs, and a prioritization of recommendations.

- **Public Involvement (Chapter V)**

- This section documents the public involvement process undertaken for the SRA study of Illinois 137/Peterson Road. It is divided into two major sections: Panel Advisory Meetings and Public Hearing. These two forums provided an opportunity for the general public or their elected officials to voice opinions concerning Illinois 137/Peterson Road.

### **Timeframe**

The SRA study of the Illinois 137/Peterson Road corridor began in February 1993 and has continued to the production of this Final Report in April 1996. Conclusions and recommendations are based on conditions existing during the study period, as well as known developments and plans by others that were current at this time.

SRA planning for Illinois 137/Peterson Road involved the Illinois Department of Transportation (IDOT), CATS, and the numerous communities served and/or affected by the route. Input was received through a series of three meetings with a SRA Advisory Panel, and a public hearing held on October 1995, to present the draft recommendations.

*Illinois 137/  
Peterson Road SRA*

**Chapter II**

**Existing Conditions**

## Chapter II

# Existing Conditions

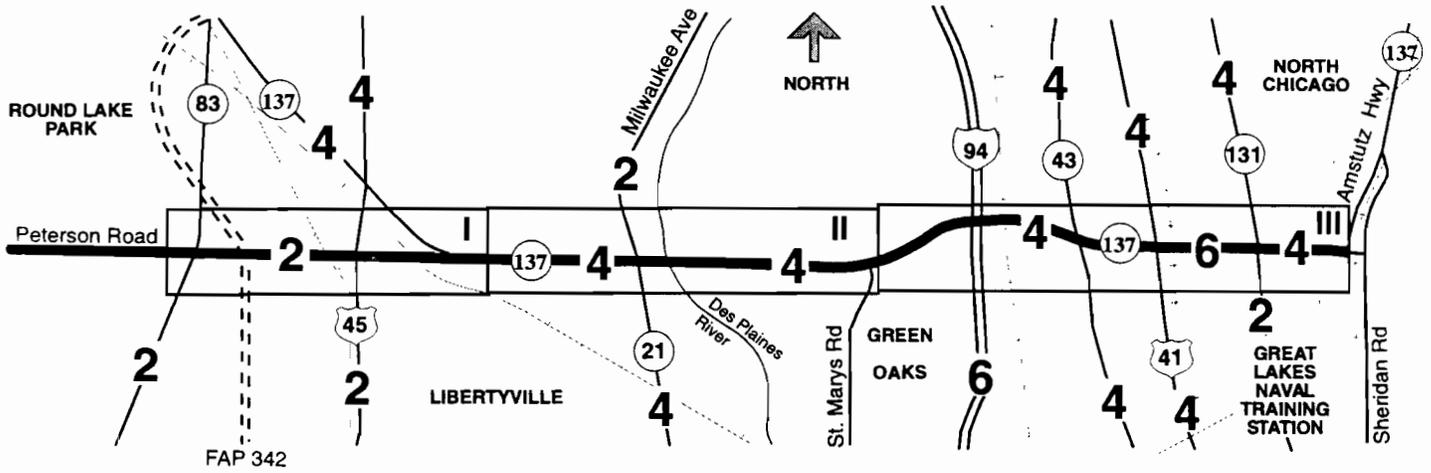
The Illinois 137/Peterson Road SRA corridor study area extends from Illinois 83 to the Amstutz Highway through Lake County (a distance of approximately 9.5 miles). As shown in Exhibit 2, the corridor has been divided into three segments for purposes of analysis and planning:

- Segment I——“Peterson Road” (Illinois 83 to Illinois 137)
- Segment II——“Illinois 137 - Central” (Peterson Road to St. Marys Road)
- Segment III——“Illinois 137 - East” (St. Marys Road to the Amstutz Highway)

Illinois 137/Peterson Road serves as a regional east-west connection between Illinois 83 and the Amstutz Highway in central Lake County. Its regional importance is emphasized by the fact it is crossed by two SRA routes (Illinois 21 and U.S. 41); several numbered, state, and interstate routes (Illinois 83, U.S. 45, Illinois 43, and Illinois 131); I-94; and the Amstutz Highway. In addition, the Illinois 137 portion of the Illinois 137/Peterson Road corridor serves as a major arterial roadway, with numerous access points within the cities and villages through which it travels. Thus, the Illinois 137/Peterson Road corridor serves both regional and local trips.

Existing physical characteristics, and safety, traffic, and transit data for each of the analysis segments were collected from numerous sources. See Table 1. Information also was obtained from field reconnaissance, as well as discussions with state, county, village, and city officials at advisory panel meetings.

**ILLINOIS 137/PETERSON ROAD  
ILLINOIS 83 TO THE AMSTUTZ HWY (Approx. 9.5 miles)**



**4** Number of Existing Through Lanes  
(Both Directions of Travel)

**II** Segment Number

**Table 1**  
**Sources of Data Describing Traffic and Transportation Characteristics of Illinois 137/Peterson Road 1993**

Item	Data Source
Traffic Volumes <ul style="list-style-type: none"> <li>• Average Daily Traffic</li> <li>• Intersection Turning Movement Counts</li> </ul>	<ul style="list-style-type: none"> <li>- 1988 and 1992 traffic maps, Lake County</li> <li>- Illinois Department of Transportation, Office of Planning &amp; Programming (OPP)</li> </ul>
Accidents	<ul style="list-style-type: none"> <li>- Illinois Department of Transportation, Division of Traffic Safety, Collision Diagram Information (1989, 1990, 1991 and January-July 1992)</li> </ul>
Transit <ul style="list-style-type: none"> <li>• Routes</li> <li>• Ridership</li> </ul>	<ul style="list-style-type: none"> <li>- Regional Transportation Authority</li> <li>- Chicago Transit Authority</li> <li>- Metra</li> <li>- Pace</li> </ul>
Traffic Control <ul style="list-style-type: none"> <li>• Signalized Intersection Locations</li> <li>• Other Traffic Control</li> </ul>	<ul style="list-style-type: none"> <li>- Field Reconnaissance</li> </ul>
Cross Section <ul style="list-style-type: none"> <li>• Lane Widths and Arrangements</li> <li>• Shoulder Widths</li> <li>• Type of Section</li> </ul>	<ul style="list-style-type: none"> <li>- As-Built Plans</li> <li>- Illinois Department of Transportation, Scope Report OPP-Planning Services Section</li> <li>- Field Reconnaissance</li> </ul>
Right-of-Way	<ul style="list-style-type: none"> <li>- Illinois Department of Transportation, Scope Report OPP-Planning Services Section</li> <li>- As-Built Plans</li> </ul>
Curb/Roadside Use <ul style="list-style-type: none"> <li>• Parking</li> <li>• Bus and Loading Zones</li> </ul>	<ul style="list-style-type: none"> <li>- Field Reconnaissance</li> </ul>
Structures	<ul style="list-style-type: none"> <li>- Illinois Department of Transportation, Scope Report OPP-Planning Services Section</li> </ul>
Other Features	<ul style="list-style-type: none"> <li>- Illinois Department of Transportation, Scope Report OPP-Planning Services Section</li> </ul>

## Corridor Overview

The Peterson Road portion of the Illinois 137/Peterson Road corridor, the westernmost 2 miles of the 9.5-mile length, is a two-lane roadway with no median, aggregate shoulders, and open drainage. The existing connection between Peterson Road and Illinois 137 is a directional interchange, with single-lane ramps onto Illinois 137.

The Illinois 137 section of the corridor, 7.5 miles of the 9.5-mile corridor length, is generally a four-lane roadway with a flush or mountable median and curb and gutters (closed-drainage system). Exceptions to this include:

- A section about 0.75 miles long east of Butterfield Road with shoulders, open drainage, and a grass-barrier median.
- A section about 1 mile long east of Great Lakes Drive, which is a six-lane roadway with a barrier median.
- A 0.25-mile section east of Illinois Street, which is a four-lane roadway with a barrier median.

The existing right-of-way ranges from about 80 to 180 feet, with the exception of the immediate I-94 interchange area where the right-of-way width is as high as 230 feet. More than 4 miles of the corridor has 80 feet of right-of-way, including the Peterson Road portion of the corridor and Illinois 137 from Illinois 21 to I-94. Between Peterson Road and Illinois 21, the existing right-of-way varies between 100 and 180 feet, and east of I-94 the existing right-of-way ranges from 110 to 135 feet.

The corridor is a fully accessible facility with numerous driveways, local roads, signalized intersections, and two grade-separated interchanges (Illinois 137 at Peterson Road and I-94). It is paralleled by other major routes, none of which are close enough to be reasonably considered as alternative routes. The closest parallel SRA routes are Illinois 60, approximately 4.5 miles to the south, and Illinois 120, approximately 2.5 miles north. Illinois 176 (not designated a SRA) also parallels the Illinois 137/Peterson Road corridor approximately 2 miles to the south. Numerous lower-class roads parallel Illinois 137/Peterson Road at much closer distances, but none

has the necessary continuity or functional classification to act as an alternate route for the regional trips that the Illinois 137/Peterson Road SRA is intended to serve.

As shown in Table 2, existing traffic demand on Illinois 137/Peterson Road ranges from 9,200 to over 25,200 vehicles per day (vpd). The lowest average daily traffic occurs west of Illinois 137 along the Peterson Road portion of the Illinois 137/Peterson Road SRA. The highest volume, 25,200 vpd, occurs between Interstate 94 and Illinois 43, which is a developed commercial area. Illinois 21 is also heavily traveled, and is designated a SRA. Traffic volumes in 1992 ranged from 20,000 to 25,000 vpd between Illinois 21 and Illinois 43. The traffic volumes east of U.S. 41 are approximately 20,000 vpd.

<b>Table 2</b>		
<b>Average Daily Traffic Volumes Along Illinois 137/Peterson Road in 1988 to 1992</b>		
<b>Location</b>	<b>Average Daily Traffic ADT (vpd)</b>	
	<b>1988</b>	<b>1992</b>
Illinois 83 to Midlothian Road	8,000	9,200
Midlothian Road to U.S. 45	10,100	10,500
U.S. 45 to Illinois 137	6,900	11,100
Illinois 137 to Illinois 21	24,500	24,500
Illinois 21 to St. Marys Road	19,700	22,200
St. Marys Road to O'Plaine Road	21,900	20,900
O'Plaine Road to Interstate 94	14,200	20,400
Interstate 94 to Illinois 43	20,300	25,200
Illinois 43 to U.S. 41	8,900	19,200
U.S. 41 to Illinois 131	13,500	21,700
Illinois 131 to the Amstutz Highway	14,900	NA

Under current traffic conditions, some peak period congestion is evident along short segments of Illinois 137/Peterson Road. It is most congested near the intersection of the Illinois 137/Peterson Road corridor with adjacent major roadways and commercially developed areas. Both of these areas are located west of Illinois 21. This segment of the Illinois 137/Peterson Road corridor is also an area where the spacing and number of access points (driveways) complicate traffic operations.

Much of the Illinois 137/Peterson Road corridor has been improved to accommodate current and expected short-term future traffic. As a result, current congestion is not severe. The only section of the corridor that has not been recently improved is Peterson Road. The majority of the Illinois 137/Peterson Road corridor operates at reasonable levels of service under existing traffic levels.

Table 3 lists the other transportation facilities that cross or are adjacent to Illinois 137/Peterson Road. The list includes the Metra Milwaukee North, which passes over Peterson Road west of Illinois 137, and the Metra Chicago & North Western (C&NW) North commuter rail lines at the east terminus of the corridor. Several freight lines also cross Illinois 137/Peterson Road, including the Wisconsin-Central Railroad immediately west of U.S. 45, the Chicago Canadian Pacific/Soo Line under the corridor to the east of I-94, and the Chicago & North Western Railroad at-grade immediately east of U.S. 41. The Elgin, Joliet & Eastern (EJ&E) Railway crosses Illinois 137/Peterson Road at-grade between Ray Street and Spaulding Street.

There are several Pace bus routes that serve the Illinois 137/Peterson Road SRA corridor: Route 572 crosses Peterson Road on U.S. 45, Routes 563 and 567 serve the corridor between Green Bay Road and Sheridan Road, and Route 569 operates between Green Bay Road and Lewis Avenue.

There are several existing physical and environmental concerns along Illinois 137/Peterson Road. Limited right-of-way is a concern in areas associated with development close to the existing right-of-way boundary. This concern is particularly acute in the commercial area just west of Illinois 21, and to a lesser extent in the area just west of U.S. 45. In less-developed segments, limited right-of-way may be a concern on only one side of the roadway. Environmental concerns include parks, historic sites, floodplains, leaking underground storage tank (LUST) sites, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)

**Table 3  
Existing Transit Facilities and Rail Operation Along Illinois 137**

Facility	Frequency	Location of Rail or Bus Route	Average Weekday Boardings*
<b>Metra Lines and Nearest Stations</b>			
Milwaukee District/ North Line Grayslake Station	Weekday: 18 inbound, 21 outbound Saturday: 9 inbound, 9 outbound Sunday: 7 inbound, 7 outbound	Lake and St. Paul Streets	369
Milwaukee District/ North Line Libertyville Station	Weekday: 21 inbound, 21 outbound Saturday: 9 inbound, 9 outbound Sunday: 7 inbound, 7 outbound	200 W. Lake Street (at Milwaukee Avenue)	1,139
Chicago and Northwestern/ North Line Great Lakes Station	Weekday: 15 inbound, 19 outbound Saturday: 9 inbound, 11 outbound Sunday: 8 inbound, 8 outbound	2840 S. Sheridan Road	98
Chicago and Northwestern/ North Line North Chicago Station	Weekday: 23 inbound, 22 outbound Saturday: 11 inbound, 11 outbound Sunday: 8 inbound, 8 outbound	1633 Lakeside	165
Chicago and Northwestern/ North Line Lake Bluff Station	Weekday: 23 inbound, 24 outbound Saturday: 11 inbound, 11 outbound Sunday: 8 inbound, 8 outbound	600 N. Sheridan Road	357
<b>Pace Bus Routes</b>			
Pace 572	Weekday: 14-15 northbound, 13 southbound Saturday: 8 northbound, 8 southbound No Sunday or holiday service	Crosses on U.S. 45	1,157
Pace 567	Mon.-Thu.: 10 eastbound, 10 westbound Friday: 14 eastbound, 14 westbound Saturday: 26 eastbound, 26 westbound Sunday: 24 eastbound, 24 westbound Sunday service operates on some major holidays; No service on Thanksgiving or Christmas	Uses corridor between Green Bay and Sheridan Roads	179*
Pace 563	Weekday: 19 eastbound, 20 westbound Saturday: 9 eastbound, 9 westbound No Sunday or holiday service	Uses corridor between Green Bay and Sheridan Roads: Westbound buses turn at Meridian Drive	396
Pace 569	Weekday: 26 eastbound, 25 westbound No Saturday, Sunday, or holiday service	Uses corridor between Green Bay Road and Lewis Avenue	1,231
<b>Other Rail Lines</b>			
Wisconsin Central Railroad	N/A	Crosses just east of U.S. 45	N/A
Canadian Pacific/Soo Line	N/A	Crosses just east of I- 94 (Tri-State Tollway)	N/A
Amtrak/ Hiawatha Service and Empire Builder	Weekday: 8 northbound, 8 southbound Saturday: 8 northbound, 8 southbound Sunday: 7 northbound, 7 southbound	Crosses just east of I- 94 (Tri-State Tollway)	N/A

Table 3 Existing Transit Facilities and Rail Operation Along Illinois 137			
Facility	Frequency	Location of Rail or Bus Route	Average Weekday Boardings*
Chicago and Northwestern Railroad	16 freight trains per day	Crosses just east of U.S. 41	N/A
Elgin, Joliet, and Eastern Railroad	1 freight train per day	Crosses between Ray Street and Spaulding Street in Great Lakes Naval Training Center	N/A
Chicago and Northwestern Railroad	6-8 freight trains per day	Crosses between Ohio Street and Sheridan Road in Great Lakes Naval Training Center	N/A
Sources: Metra and Pace, <i>"Future Agenda for Suburban Transportation"</i> (April 1992). Pace, <i>"Quarterly Route Review: January- March, 1992"</i> (June 1992). Metra and Pace, Individual line/route timetables. EJ&E Railroad, Joliet, Illinois. Chicago and Northwestern Railroad, Chicago, Illinois. Amtrak, <i>"National Timetable"</i> (Spring/Summer 1993).			

\*For Pace buses, this column represents "Average Weekday Ridership".

@The ridership trend for the Pace 567 route deviates from other routes. Average weekend ridership is higher than average weekday ridership. Saturday ridership is 607 and Sunday ridership is 406.

CHI253-051 wp5

sites and forest/nature preserves throughout the entire length of the corridor. In addition, Advanced Identification (ADID) wetlands have been identified along the corridor by the U.S. Army Corps of Engineers and the U.S. EPA. See Table 4.

### **Current Planning, Design and Construction Activity**

There are a number of projects in various stages of planning or construction along Illinois 137. A Phase I project involving Illinois 21 (and including the Illinois 137 intersection) is scheduled for completion in 1995. The Illinois State Toll Highway Authority is converting the interchange with I-94 to a full interchange. Widening of the crossing over I-94 and signalization of both ramp terminals is also included. This project was under construction during 1994-1995, and is scheduled to open to traffic in 1995. IDOT is also performing Phase I and II work on U.S. 45, including the intersection with Peterson Road.

**Table 4**  
**Sources of Environmental and Land Use Data For Illinois 137/Peterson Road Corridor**

Item	Data Source
Parkland and Other Open Space	<p>Listing of Land and Water Conservation Fund (LAWCON) Projects; U.S. Department of the Interior, National Park Service</p> <p>1985 Bikeways Plan; Northeastern Illinois Planning Commission</p> <p>Illinois Natural Areas Inventory; Illinois Department of Transportation, District 1, Project and Environmental Studies</p> <p>Illinois Nature Preserves System 1987-1988 Report and 1990 Update; Illinois Nature Preserves Commission</p> <p>Lake County Forest Preserve Maps</p> <p>Visual Survey 2/93</p>
Wetlands	<p>National Wetlands Inventory Map; U.S. Department of the Interior, U.S. Fish and Wildlife Service</p> <p>Lake County Advanced Identification Wetlands Map (ADID)</p>
Floodplains	<p>FIRM, Flood Insurance Rate Map; Federal Emergency Management Agency</p> <p>FLOODWAY, Flood Boundary and Floodway Map; U.S. Department of Housing and Urban Development</p>
Hazardous Materials	<p>Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) Listing, 4/92; U.S. EPA Superfund Program</p> <p>Leaking Underground Storage Tank (LUST) Listing, 12/91; Illinois Environmental Protection Agency</p> <p>Waste Survey prepared for Illinois 21 Phase 1 Project, 10/91, CH2M HILL</p>
Historic Sites	<p>The National Register of Historic Places, 1990; U.S. Department of the Interior</p> <p>Illinois State Historical Markers Text Book, 1973; Illinois Historic Structures Survey</p> <p>Inventory of Historic Structures and Historic Landmarks, 1973; Illinois Historic Structures Survey</p>

## Summary of Findings

The existing physical characteristics, traffic operation, safety, public transportation, environmental concerns, and land use in the three segments defined along Illinois 137/Peterson Road are presented below.

### **Segment I——“Peterson Road” (Illinois 83 to Illinois 137)**

Segment I of the Illinois 137/Peterson Road SRA is approximately 2 miles long, extending from Illinois 83 at the west end of the corridor to just west of the Illinois 137/Peterson Road interchange. Segment I includes the villages of Round Lake Park and Libertyville.

#### *Physical Characteristics*

Segment I typically has two lanes (one in each travel direction), aggregate shoulders, and open drainage. See Exhibit A-1. The horizontal alignment is essentially straight, and the vertical alignment is level to rolling. The right-of-way within the segment varies from approximately 80 to 120 feet. Right-of-way is somewhat limited just west of U.S. 45 due to existing development, otherwise the Peterson Road segment of the SRA corridor is relatively undeveloped. See Exhibit B-1.

The Wisconsin Central Railroad crosses Illinois 137/Peterson Road at grade just west of U.S. 45. The crossing is controlled by flashing lights, bells, and gates. There are no major structures within this segment.

#### *Traffic Control, Operations and Safety*

Major intersections within the segment include Illinois 83 and U.S. 45. Illinois 83 is a four-way, stop-controlled intersection, and U.S. 45 is signal-controlled. There are left-turn lanes at the U.S. 45 intersection.

During peak morning and evening hours, vehicles may experience some minor queues when crossing these major intersections. Minimal delays are experienced by vehicles traveling through the signalized intersection at U.S. 45. This also holds true for the four-way, stop-controlled intersection at Illinois 83.

Multiple access points also affect traffic operation on Illinois 137/Peterson Road between Harris Road and U.S. 45. Parking is prohibited along Illinois 137/Peterson Road within this segment, and the posted speed limit is 50 miles per hour (mph). See Exhibit A-1.

Traffic demand within this section, based on the 1992 Lake County traffic map, is approximately 9,200 vpd between Illinois 83 and Midlothian Road, 10,500 vpd between Midlothian Road and U.S. 45, and 11,100 vpd from U.S. 45 to west of Illinois 137. See Exhibit A-1. The slight increase in traffic volume west of U.S. 45 is most likely due to the commercial and industrial development in this area, and the use of Peterson Road as an east-west connection between U.S. 45 and Illinois 60. The Peterson Road portion of the SRA corridor falls under Lake County's jurisdiction.

Accident data were obtained for 1989, 1990, 1991, and January to July of 1992. See Exhibit A-1. Accident data from Illinois 83 to U.S. 45 were not available. Calculated intersection accident rates of 0.98 accidents per million entering vehicles (MEV) at Illinois 83 and 1.15 accidents per MEV at U.S. 45 were not considered significantly high. A segment accident rate of 2.11 accidents per million vehicle miles (MVM) was calculated from U.S. 45 to west of Illinois 137. This rate is considered typical for a roadway of this type.

### ***Public Transportation***

There are no commuter rail facilities operating in this segment of Peterson Road. See Table 3 and Exhibit A-1. However, Pace Route 572 crosses this SRA corridor on U.S. 45. Three buses per peak hour travel this route, which extends south to the U.S. 45/Illinois 60 commercial area and north to the Waukegan Metra station.

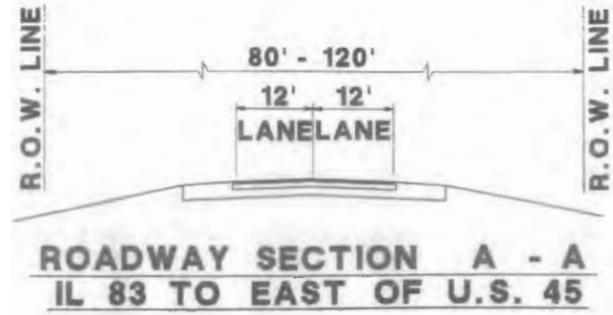
### ***Environmental Constraints and Land Use***

Environmental concerns within this segment consist of a potentially historic building in the southeast quadrant of the Peterson Road/Illinois 83 intersection, and high-pressure natural gas pipelines parallel to and below the roadway. See Table 5 and Exhibit B-1. Land within this segment is generally zoned for commercial, office-service and/or industrial use.

<b>Table 5</b>			
<b>Summary of Environmentally Sensitive Land Uses and Sites Along Segment I (Illinois 83 to Illinois 137) of Illinois 137/Peterson Road</b>			
<b>Item</b>	<b>Exhibit No.</b>	<b>Reference</b>	<b>Description</b>
Potential Historic Significance	B-1	H-1	SE Quadrant of the Peterson Road/Illinois 83 Intersection
CERCLIS Sites <sup>a</sup>	—	—	None Noted
LUST Sites <sup>b</sup>	—	—	None Noted
<sup>a</sup> CERCLIS = Comprehensive Environmental Response, Compensation, and Liability Information System. <sup>b</sup> LUST = Leaking Underground Storage Tank.			

Existing land uses within this corridor segment include residential, agricultural, and industrial. The existing industrial development is currently located from just west of the Wisconsin Central Railroad to U.S. 45.

LEGEND	
△	SIGNALIZED INTERSECTION
↔	LANE ARRANGEMENTS AT KEY INTERSECTIONS
P	PARKING ALLOWED
P	PARKING PROHIBITED
NR	NO POSTED RESTRICTIONS
B	DESIGNATED BUS STOP
CTA	RAPID TRANSIT STATION
METRA	METRA STATION



1988/1992  
AVERAGE  
DAILY  
TRAFFIC

ACCIDENT  
RATE\*

TRANSIT  
ROUTES

EDGE OF  
ROAD USE

ACCIDENT RATES FOR THE PERIOD  
OF (1989-1991)

	8,000 / 9,200	10,100 / 10,500	6,900 / 11,100
			2.11/MVM
	0.98/MEV		1.15/MEV
		METRA RAIL NONE	
		PACE BUS NONE	PACE ROUTE 572
NORTH		P	
SOUTH		P	

## IL 137/PETERSON RD EXISTING CONDITIONS

**SRA** Strategic Regional Arterial Planning Study EXHIBIT A-1

Prepared by CH2M HILL in association with  
METRO Transportation Group and EJM Engineering

ILLINOIS DEPARTMENT OF TRANSPORTATION

Scale: 0 250 400 Feet

# PLANNING FOCUS AREAS

## A) IL 83 INTERSECTION

- All-way-stop-controlled

## B) HARRIS ROAD TO U.S. 45

- Multiple driveway/cross street access points may affect SRA operation
- Through traffic may be affected by at-grade railroad crossing

## C) U.S. 45 INTERSECTION

- Capacity improvements for intersection are constrained by adjacent land use



SUBURBAN SRA -- 120' TO 150' RIGHT OF WAY (DESIRABLE)

### LEGEND

- A Planning Focus Area (A, B, C)
- ☠ Hazardous Waste Site
- ⬇ Leaking Underground Storage Tank
- Ⓜ Historic Building/District
- \* Wetland
- † Church/Synagogue/Religious Institution
- ▨ Floodplain/Floodway
- Agricultural Land
- Special Use Areas
- Major Utility Lines

## IL 137/PETERSON ROAD

Prepared by CH2M HILL in association with  
METRO Transportation Group and EJM Engineering

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SRA** Strategic Regional Arterial  
EXHIBIT B-1  
Planning Study

Scale: 0 200 400 feet

## **Segment II——“Illinois 137 - Central” (Peterson Road to St. Marys Road)**

Segment II of the Illinois 137/Peterson Road SRA is approximately 3.5 miles long, extending from Peterson Road to St. Marys Road. It contains the Illinois 137/Peterson Road interchange and the central portion of the corridor. This segment serves the villages of Libertyville and Green Oaks.

### ***Physical Characteristics***

At the western end of this segment is the interchange between Illinois 137 and Peterson Road. As Peterson Road enters the Peterson Road/Illinois 137 interchange area, the roadway splits. Within the interchange, the existing Illinois 137/Peterson Road SRA corridor consists of one-lane ramps serving Illinois 137. The ramps have open drainage and paved shoulders, and exit and enter Illinois 137 approximately 1000 feet west of Butterfield Road.

East of the Illinois 137/Peterson Road interchange this segment of the corridor generally has four lanes (two in each direction), flush median, and curb and gutter. The drainage is open, without curbs, and the median is raised from Peterson Road to Cass Drive. The drainage is closed and the median is flush from Cass Drive to St. Marys Road. See Exhibits A-2 and A-3. A paved shoulder exists between Cass Drive and Illinois 21.

Immediately west of the Illinois 137/Peterson Road interchange, the horizontal alignment curves slightly south and the ramps curve through the interchange area. East of the interchange, the horizontal alignment is tangent until the roadway begins to curve north just west of St. Marys Road. The vertical alignment is level to rolling, with a 5.1 percent upgrade on the westbound approach to the Illinois 21 intersection.

The right-of-way within the segment varies from approximately 80 to 180 feet, with the exception of the Illinois 137/Peterson Road interchange area where the right-of-way width is as high as 500 feet. Right-of-way between Sunnyview Road and Illinois 21 is constrained by existing development and some wetlands. See Exhibit B-2. Between Illinois 21 and St. Marys Road, existing development, forest preserve, and cemetery land are immediately adjacent to the right-of-way. See Exhibits B-3.

There are three other physical characteristics of note in this segment. Three major structures are located within this segment: the Metra Milwaukee North commuter rail line spans Peterson Road immediately west of the Illinois 137/Peterson Road interchange; Illinois 137, as it curves northwest, crosses over the westbound Peterson Road exit ramp; and Illinois 137 spans the Des Plaines River east of Illinois 21. See Table 6.

<b>Table 6</b>			
<b>Existing Structures Along Segment II (Peterson Road to St. Marys Road) of Illinois 137/Peterson Road</b>			
<b>IDOT Structure Reference</b>	<b>Feature</b>		
	<b>Over</b>	<b>Under</b>	<b>Comments</b>
049-0127	—	Metra Milwaukee North Commuter rail line	—
049-0096	—	WB Peterson Road exit ramp	—
049-0063	Des Plaines River	—	—

### ***Traffic Control, Operations, and Safety***

Major intersections within the segment include Butterfield Road, Illinois 21 (a SRA), and St. Marys Road. All are signal-controlled intersections. The Butterfield Road intersection has right-turn lanes on both approaches, but a left-turn lane on the eastbound approach only. The Illinois 21 and the St. Marys Road intersections have left-turn lanes, and the eastbound approach to Illinois 21 has the only right-turn lane.

The commercial area west of Illinois 21 and the Illinois 21 intersection are relatively congested during peak morning and evening hours. Vehicles traveling on Illinois 137/Peterson Road often experience long queues and, during peak hours, may wait through more than one signal cycle when crossing Illinois 21. Multiple access points affect the traffic operation of Peterson Road/Illinois 137 west of Illinois 21, and to the east between Des Plaines Drive and St. Marys Road. In addition, the offset nature of Des Plaines Drive and a commercial access drive, and River Road and East End Avenue, also affect the traffic operation on Illinois 137/Peterson Road. The posted speed limit

within this segment is 50 mph west of the Illinois 137/Peterson Road interchange. The speed limit is 40 mph for the 0.75-mile stretch west of Illinois 21 through the commercial district. The speed limit in the remainder of the segment is 45 mph. Parking is prohibited along the corridor within this segment.

Existing traffic demand within this section is approximately 11,000 vpd west of the Illinois 137/Peterson Road interchange, 24,500 vpd from the interchange to Illinois 21, and 22,200 vpd between Illinois 21 and St. Marys Road. See Exhibits A-2 and A-3. Traffic volumes are highest near the commercial area west of Illinois 21 (a SRA). East of Illinois 21, traffic volumes decrease slightly. These volume patterns can be explained by the highly commercialized nature of Illinois 137/Peterson Road west of Illinois 21, and the more residential and recreational uses to the east. The large volume difference west and east of the Illinois 137/Peterson Road interchange is due to the fact the SRA corridor follows Peterson Road, a relatively low-volume county road. About two-thirds of the existing traffic follows the marked route of Illinois 137.

Accident data were obtained for 1989, 1990, 1991, and the first seven months of 1992. See Exhibit A-2 and A-3. Calculated intersection accident rates of 1.66 accidents per million entering vehicles (MEV) at Butterfield Road, 1.94 accidents per MEV at Illinois 21, and 1.58 accidents per MEV at St. Marys Road were not considered significantly high. Segment accident rates were calculated as 2.11 accidents per million vehicle miles (MVM) on Peterson Road, 1.43 accidents per MVM from Peterson Road to Illinois 21, and 1.77 accidents per MVM between Illinois 21 and St. Marys Road. These rates are considered typical for a corridor of this type.

### ***Public Transportation***

One public rail facility operates in this segment of Illinois 137/Peterson Road. The Metra Milwaukee North commuter rail line crosses over the corridor immediately west of the Illinois 137/Peterson Road interchange. See Table 3 and Exhibit A-3. The closest train stations to the Illinois 137/Peterson Road corridor are in Libertyville and Grayslake.

## ***Environmental Constraints and Land Use***

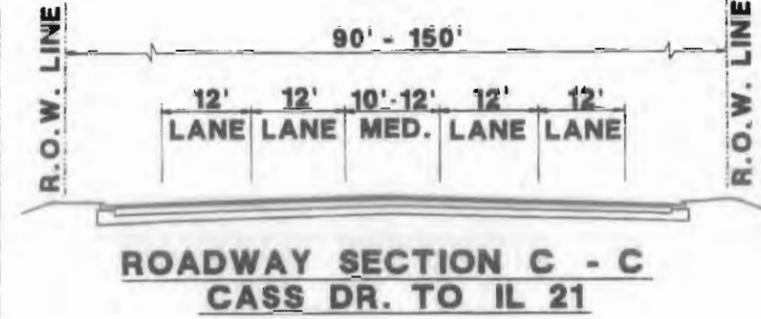
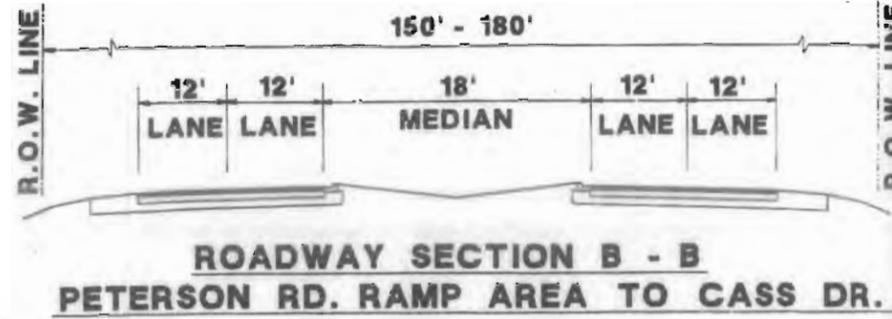
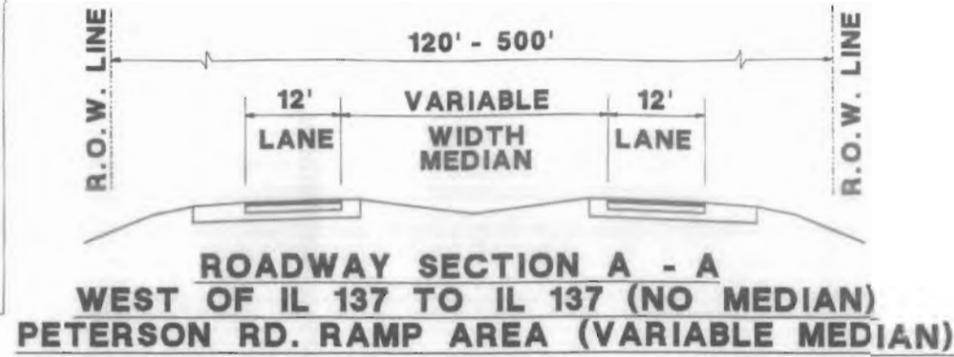
The environmental concerns within this segment consist of potential wetland areas between Sunnyview Road and Bell Lane and near Cass Drive, and leaking underground storage tank (LUST) locations east of Cass Drive, and in the southeast quadrant of the Illinois 21 intersection. See Table 7 and Exhibits B-2 and B-3. A CERCLIS site also has been identified on the Lake County Grading Company property accessing the corridor. See Exhibit B-3. Potential wetland areas have been identified near the Des Plaines River, adjacent to River Road, and north of the corridor near the Oak Grove Avenue intersection. Other significant land use concerns along the route include the Liberty Township Soccer Complex, the Des Plaines River Corridor Forest Preserve, the Adler Park and School, the River Road Woods Natural Area, the Wilmot Woods Forest Preserve, and the Ascension Cemetery.

<b>Table 7</b>			
<b>Summary of Environmentally Sensitive Land Uses and Sites Along Segment II (Peterson Road to St. Marys Road) of Illinois 137/Peterson Road</b>			
<b>Item</b>	<b>Exhibit No.</b>	<b>Reference</b>	<b>Description</b>
Potential Historic Significance	—	—	None Noted
CERCLIS Sites <sup>a</sup>	B-3	C-1	The Lake County Grading Company site
LUST Sites <sup>b</sup>	B-2	L-1	East of Cass Drive
	B-2	L-2	SE Quadrant of the Illinois 137/ Illinois 21 Intersection
<sup>a</sup> CERCLIS = Comprehensive Environmental Response, Compensation, and Liability Information System. <sup>b</sup> LUST = Leaking Underground Storage Tank.			

Land within this segment is zoned office, residential, and commercial. Currently, commercial land uses exist between Bell Lane and Illinois 21. The land west of Bell Lane is predominantly residential or open land. An exception is the Ozite Corporation located in the southwest quadrant of the Butterfield Road intersection. East of Illinois 21

and south of the corridor, is a park near the Des Plaines River, a residential area, and a portion of the Wilmot Woods Forest Preserve. Land north of the corridor is mainly forest preserve, a few residential homes, and the Ascension Cemetery. Some significant land uses within this segment include the Ozite Corporation, the Liberty Manor Nursing Home, the Lake County Grading Company, and the Wineberry Farms subdivision located opposite the Liberty Manor Nursing Home. This development is in the village of Libertyville. See Exhibits B-2 and B-3.

LEGEND	
△	SIGNALIZED INTERSECTION
↔	LANE ARRANGEMENTS AT KEY INTERSECTIONS
(P)	PARKING ALLOWED
(F)	PARKING PROHIBITED
(NR)	NO POSTED RESTRICTIONS
B	DESIGNATED BUS STOP
CTA	RAPID TRANSIT STATION
METRA	METRA STATION



1988/1992  
AVERAGE  
DAILY  
TRAFFIC

ACCIDENT  
RATE\*

TRANSIT  
ROUTES

EDGE OF NORTH  
ROAD USE SOUTH

6,900 / 11,100	24,500 / 24,500	19,700 / 22,200
2.11/MVM	1.66/MEV	1.43 / MVM
PACE BUS NONE	METRA RAIL NONE	PACE BUS ROUTE 572 (3 BUSES/PEAK HR)
(P)		(P)
(P)		(P)

\* ACCIDENT RATES FOR THE PERIOD  
OF (1989-1991)

### IL 137/PETERSON RD EXISTING CONDITIONS

Prepared by CH2M HILL in association with  
METRO Transportation Group and EJM Engineering

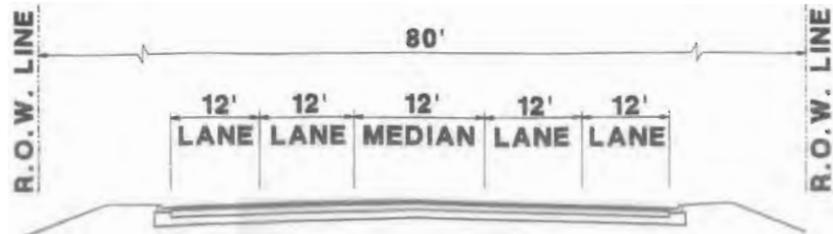
ILLINOIS DEPARTMENT OF TRANSPORTATION

**SRA** Strategic  
Regional  
Arterial Planning Study  
EXHIBIT A-2

Scale: 0 200 400 feet

**LEGEND**

-  SIGNALIZED INTERSECTION
-  LANE ARRANGEMENTS AT KEY INTERSECTIONS
-  PARKING ALLOWED
-  PARKING PROHIBITED
-  NO POSTED RESTRICTIONS
-  DESIGNATED BUS STOP
-  RAPID TRANSIT STATION
-  METRA STATION



**ROADWAY SECTION A - A  
IL 21 TO ST. MARYS RD.**



**1988 / 1992  
AVERAGE  
DAILY  
TRAFFIC**

**ACCIDENT  
RATE \***

**TRANSIT  
ROUTES**

**EDGE OF NORTH  
ROAD USE SOUTH**

19,700 / 22,200	21,900 / 20,900
1.77 / MVM	
METRA RAIL NONE	
PACE BUS NONE	
	
	

1.58/MEV

\* ACCIDENT RATES FOR THE PERIOD OF (1989-1991)

**IL 137/PETERSON RD EXISTING CONDITIONS**



# PLANNING FOCUS AREAS

## A) WEST OF IL 137

- Multiple driveway access points may affect SRA operation

## B) METRA - MILWAUKEE NORTH LINE AND IL 137 BRIDGES

- Limited horizontal and vertical clearance

## C) BUTTERFIELD ROAD TO IL 21

- Limited available right-of-way
- Multiple driveway/cross street access points may affect SRA operation



SUBURBAN SRA -- 120' TO 150' RIGHT OF WAY (DESIRABLE)

NOTE: "ADID" INDICATES ADVANCE IDENTIFICATION OF WETLANDS BY US ARMY CORPS OF ENGINEERS AND EPA AS BEING GENERALLY UNSUITABLE FOR FILL.

### LEGEND

- A Planning Focus Area ID
- Hazardous Waste Site
- Leaking Underground Storage Tank
- Historic Building/District
- Wetland
- Church/Synagogue/Religious Institution
- Agricultural Land
- Special Use Areas
- Major Utility Lines
- Floodplain/Floodway

## IL 137/PETERSON ROAD

Prepared by CH2M HILL in association with METRO Transportation Group and EJM Engineering

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SRA** Strategic Regional Arterial Planning Study **EXHIBIT B-2**

Scale: 1" = 200' 400' 800'

# PLANNING FOCUS AREAS

## A) IL 21 INTERSECTION

- Intersecting SRA
- Capacity improvements for intersection are constrained by adjacent land use

## B) DES PLAINES RIVER BRIDGE

- Limited horizontal clearance

## C) IL 21 TO ST. MARYS ROAD

- Limited available right-of-way
- Multiple driveway/cross street access points may affect SRA operation
- Offset intersections may affect SRA operations



SUBURBAN SRA -- 120' TO 150' RIGHT OF WAY (DESIRABLE)

NOTE: "ADID" INDICATES ADVANCE IDENTIFICATION OF WETLANDS BY US ARMY CORPS OF ENGINEERS AND EPA AS BEING GENERALLY UNSUITABLE FOR FILL

LEGEND	
A	Planning Focus Area I.D.
(C1)	Hazardous Waste Site
L	Leaking Underground Storage Tank
(H)	Historic Building/District
*	Wetland
†	Church/Synagogue/Religious Institution
▨	Floodplain/Floodway
—	Agricultural Land
—	Special Use Areas
—□—	Major Utility Lines

## IL 137/PETERSON ROAD

Prepared by CH2M HILL in association with METRO Transportation Group and EJM Engineering

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SRA** Strategic Regional Arterial Planning Study **EXHIBIT B-3**

Scale: 0 200 400 feet

### **Segment III— “Illinois 137 - East” (St. Marys Road to the Amstutz Highway)**

Segment III of the Illinois 137/Peterson Road SRA is approximately 4 miles, extending from St. Marys Road to the Amstutz Highway at the east end of the corridor. Segment III includes the villages of Green Oaks and North Chicago, and the Great Lakes Naval Training Station.

#### ***Physical Characteristics***

This segment typically has four lanes (two in each direction), a raised, flush, or mountable median, and a closed drainage curb-and-gutter systems. The segment between Great Lakes Drive and Ray Street is six-lanes, three lanes in each direction. The median is flush from St. Marys Road to I-94, raised within the interchange area, and mountable from I-94 to Meridian Drive. From Meridian Drive east to the Amstutz Highway the median is raised.

The horizontal alignment of this segment curves north immediately east of St. Mary’s Road and then to the south resuming an east-west alignment. East of Illinois 43 alignment is relatively tangent, and the vertical alignment is level to rolling. The existing horizontal and vertical geometry falls within current geometric standards for arterial roadways.

The existing right-of-way within this segment is approximately 80 feet wide west of I-94, and 110-to 135-feet wide to the east. Within the interchange area the right-of-way width ranges from approximately 210 to 230 feet. Right-of-way is limited west of I-94 due to existing development and a cemetery. East of I-94, between Illinois and U.S. 41, and between Mississippi Street and Great Lakes Drive, the existing right-of-way is below the desirable minimum of 120 feet.

Other physical characteristics worth noting include the major Illinois 137 structures spanning I-94 and the Chicago, Milwaukee, & St. Paul Railroad. See Table 8. At-grade railroad crossings occur at the Chicago & North Western Railroad crossing immediately east of U.S. 41, and the Elgin, Joliet & Eastern Railway crossing between Ray Street and Illinois Street. The Chicago & North Western crossing is controlled by flashing lights, bells, and gates. The Elgin, Joliet & Eastern crossing is controlled by flashing lights and bells, but does not have gates.

Table 8 Existing Structures Along Segment III (St. Marys Road to the Amstutz Highway) of Illinois 137/Peterson Road			
IDOT Structure Reference	Feature		Comments
	Over	Under	
049-0064	Tri-State Tollway (I-94)	—	Full interchange conversion currently under construction by ISTHA (construction includes widening bridge)
049-0065	CMSP&P RR	—	To be widened as part of above project

### *Traffic Control, Operations and Safety*

Major intersections within the segment include O'Plaine Road, the I-94 exit ramp, Abbott Drive, Illinois 43, U.S. 41, Mississippi Street, Great Lakes Drive, Meridian Drive, Illinois 131 (Green Bay Road), Lewis Avenue, Ray Street, Illinois Street, and the Amstutz Highway. All are signal-controlled intersections. Left-turn lanes exist at all of these intersection except the I-94 exit ramp. Double left-turn lanes exist on the westbound approach to U.S. 41, and the eastbound approach to the Amstutz Highway (one of these lanes is a combination of through and left). Separate right-turn lanes exist on both approaches at Illinois 137 intersections with Illinois 13 and Illinois Street. Right-turn lanes also exist on the westbound approach to Lewis Avenue, and the eastbound approach to U.S. 41.

During peak morning and evening hours, vehicles crossing the major intersections experience some congestion, but overall, traffic moves steadily through this area. Traffic flow within the Great Lakes Naval Training Station is smooth, because access to the Illinois 137 corridor is limited to signalized intersections. Parking is prohibited along Illinois 137 within this segment. The posted speed limit is 45 mph west of U.S. 41, 35 mph from U.S. 41 to Illinois 131, and 30 mph east of Illinois 131 to the Amstutz Highway.

Traffic demand within this segment, based on the 1992 Lake County traffic map, is approximately 20,900 vpd from west of O'Plaine Road to I-94, 25,200 vpd between I-94 and Illinois 43, 19,200 vpd between Illinois 43 and U.S. 41, and 21,700 vpd east of U.S. 41. See Exhibits A-4 and A-5. Significant growth in traffic has occurred east of I-94 from 1988 to 1992. Major developments within this segment, such as Abbott Labs, have produced increased traffic demand on Illinois 137.

Accident data were obtained for 1989, 1990, 1991, and January to July of 1992. See Exhibits A-4 and A-5. Calculated intersection accident rates of 2.24 accidents per million entering vehicles (MEV) at O'Plaine Road, 1.99 accidents per MEV at Illinois 43, 2.50 accidents per MEV at U.S. 41, and 2.14 accidents per MEV at Illinois 131 are not considered significantly high. Segment accident rates were calculated at 2.67 accidents per million vehicles miles (MVM) from St. Marys Road to Illinois 43, 2.65 accidents per MVM between Illinois 43 and Illinois 131, and 2.54 accidents per MVM from Illinois 131 to the Amstutz Highway. These rates are not considered significantly high for a corridor of this type.

### ***Public Transportation***

One public rail facility operates in this segment of Illinois 137/Peterson Road. See Table 3 and Exhibit A-5. The Metra Chicago & North Western commuter rail line crosses the corridor on structure immediately east of the Amstutz Highway (the eastern terminus of the corridor). The closest train stations to the Illinois 137/Peterson Road corridor are North Chicago, Lake Bluff, and Great Lakes, which is immediately adjacent to the eastern terminus of the Illinois 137/Peterson Road SRA.

Pace routes 563, 567, and 569 serve this segment of the corridor. See Table 3 and Exhibits A-4 and A-5. Route 563 serves the corridor between Meridian Drive and the Amstutz Highway, and routes 567 and 569 use the corridor between Illinois 131 and the Amstutz Highway, and Lewis Avenue, respectively. Three buses per peak hour travel each route. All the routes serve the Great Lakes Training Station and areas to the north. Bus stops are located along the SRA corridor west of Illinois Street and east of Illinois Route 131 (westbound) and west of Lewis Avenue and Ray Street (eastbound).

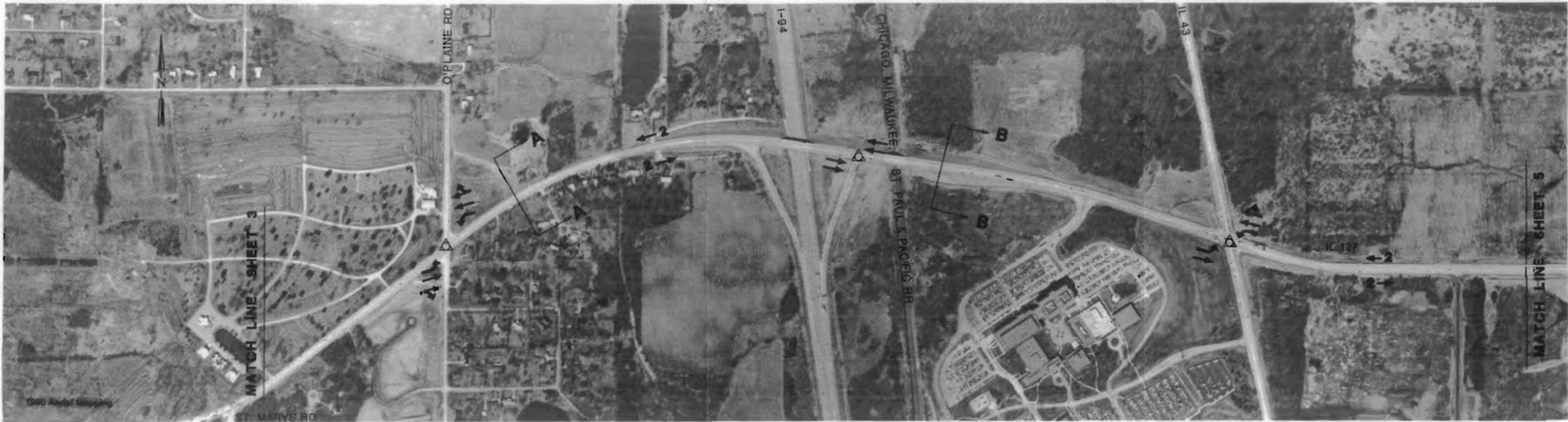
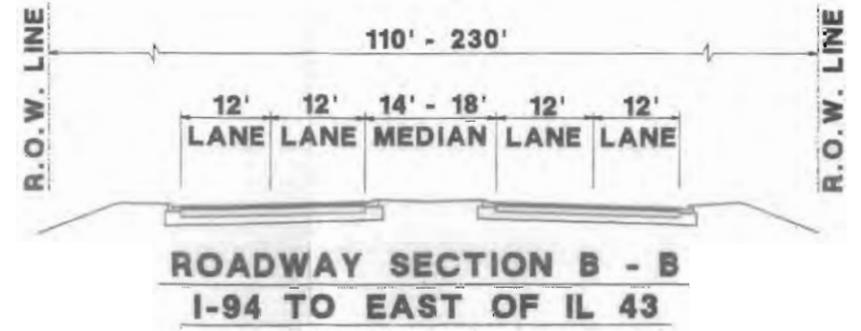
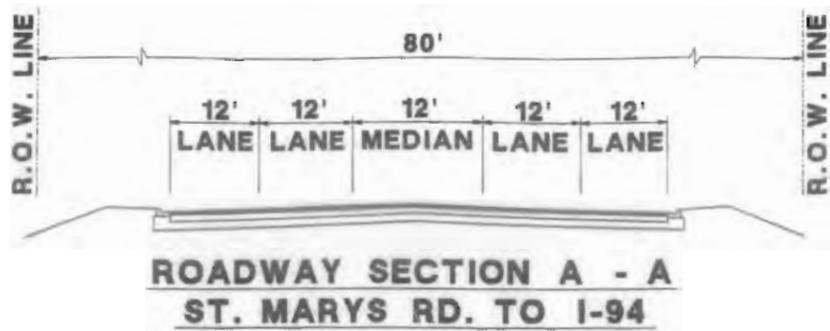
## *Environmental Constraints and Land Use*

The environmental concerns within this segment consist of potential wetlands located in the northeast quadrant of the O'Plaine Road intersection, between I-94 and Illinois 43, and in the northwest quadrant of the U.S. 41 intersection. See Table 9 and Exhibits B-5. Other areas of concern include the Ascension Cemetery between St. Marys Road and O'Plaine Road, and the Oak Grove White Fringed Orchid Natural Area between I-94 and the Chicago, Milwaukee, St. Paul & Pacific Railroad. A LUST site also has been identified on the land in the southeast quadrant of the Illinois 43 intersection.

<b>Table 9</b>			
<b>Summary of Environmentally Sensitive Land Uses and Sites Along Segment III (St. Marys Road to the Amstutz Highway) of Illinois 137/Peterson Road</b>			
<b>Item</b>	<b>Exhibit No.</b>	<b>Reference</b>	<b>Description</b>
Potential Historic Sites	—	—	None Noted
CERCLIS Sites <sup>a</sup>	—	—	None Noted
LUST Sites <sup>b</sup>	B-4	L-4	Ammco Tools site
<sup>a</sup> CERCLIS = Comprehensive Environmental Response, Compensation, and Liability Information System. <sup>b</sup> LUST = Leaking Underground Storage Tank.			

Land within this segment is generally zoned for office, although there are some commercially zoned areas near U.S. 41. In addition, a large part of this segment, from U.S. 41 to the east, is part of the Great Lakes Naval Training Station. Existing land uses within the segment are primarily residential, open space, and some commercial near U.S. 41 and Illinois 131. Significant land uses within the segment, besides the Great Lakes Naval Training Station, include Ascension Cemetery, Abbott Labs, Ammco Tools, the U.S. Navy golf course, and the Downey Veterans Administration Hospital. See Exhibits B-4 and B-5.

LEGEND	
	SIGNALIZED INTERSECTION
	LANE ARRANGEMENTS AT KEY INTERSECTIONS
	PARKING ALLOWED
	PARKING PROHIBITED
	NO POSTED RESTRICTIONS
	DESIGNATED BUS STOP
	RAPID TRANSIT STATION
	METRA STATION



1988 / 1992  
AVERAGE  
DAILY  
TRAFFIC

ACCIDENT  
RATE \*

TRANSIT  
ROUTES

EDGE OF NORTH  
ROAD USE SOUTH

21,900 / 20,900	14,200 / 20,400	20,300 / 25,200	8,900 / 19,200
2.67/MVM	2.24/MEV	2.67 / MVM	1.99/MEV
	METRA RAIL NONE		
	PACE BUS NONE		

\* ACCIDENT RATES FOR THE PERIOD  
OF (1989-1991)

### IL 137/PETERSON RD EXISTING CONDITIONS

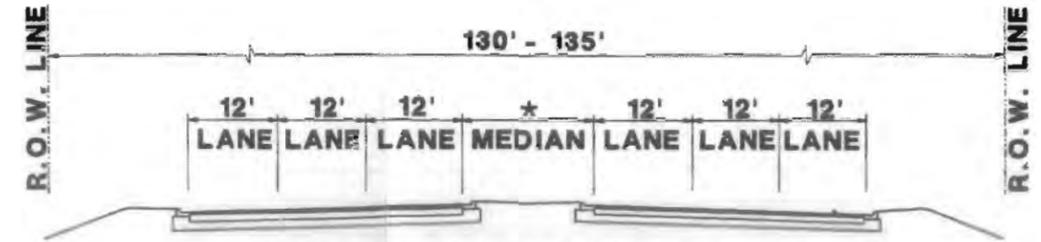
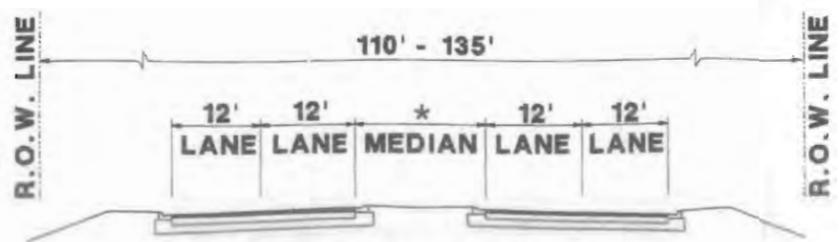
Prepared by CH2M HILL in association with  
METRO Transportation Group and EJM Engineering

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SRA** Strategic  
Regional  
Arterial EXHIBIT A-4  
Planning Study

Scale: 0 200 400 Feet

LEGEND	
△	SIGNALIZED INTERSECTION
→	LANE ARRANGEMENTS AT KEY INTERSECTIONS
P	PARKING ALLOWED
P	PARKING PROHIBITED
NR	NO POSTED RESTRICTIONS
B	DESIGNATED BUS STOP
CTA	RAPID TRANSIT STATION
METRA	METRA STATION



**ROADWAY SECTION A - A**  
 \*WEST OF U.S.41 TO GREAT LAKES DR. (18' - 30' MOUNTABLE)  
 \*RAY ST TO THE AMSTUTZ HWY. (VARIABLE RAISED)

**ROADWAY SECTION B - B**  
 \*GREAT LAKES DR. TO MERIDIAN ST. (18' - 30' MOUNTABLE)  
 \*MERIDIAN ST. TO RAY ST. (18' - 30' RAISED)



1988 / 1992  
 AVERAGE  
 DAILY  
 TRAFFIC

ACCIDENT  
 RATE \*

TRANSIT  
 ROUTES

DIRECTION OF  
 ROAD USE NORTH  
 SOUTH

8,900 / 19,200	13,500 / 21,700	14,900 / N.A.
2.50 / MEV	2.65 / MVM	2.54 / MVM
PACE BUS NONE	METRA RAIL NONE	PACE ROUTE 567
	PACE ROUTE 563	PACE BUS ROUTES 563, 567, 569 (3 BUSES / PEAK HR)
	PACE ROUTES 563, 569	PACE BUS ROUTES 563, 567 (3 BUSES / PEAK HR)
		PACE ROUTE 569

\* ACCIDENT RATES FOR THE PERIOD OF (1989-1991)

### IL 137 / PETERSON RD EXISTING CONDITIONS

Prepared by CH2M HILL in association with  
 METRO Transportation Group and EJM Engineering  
 ILLINOIS DEPARTMENT OF TRANSPORTATION



# PLANNING FOCUS AREAS

## A) WEST OF O'PLAINE ROAD TO I-94

- Limited available right-of-way
- Multiple driveway access points may affect SRA operation

## B) I-94 INTERCHANGE AREA

- Limited horizontal clearance on bridges over I-94 and the Chicago, Milwaukee, St. Paul, & Pacific Railroad
- Limited available right-of-way to the south near the Oak Grove Fringed Orchid Natural Area



SUBURBAN SRA -- 120' TO 150' RIGHT OF WAY (DESIRABLE)

NOTE: "ADID" INDICATES ADVANCE IDENTIFICATION OF WETLANDS BY US ARMY CORPS OF ENGINEERS AND EPA AS BEING GENERALLY UNSUITABLE FOR FILL.

LEGEND	
A	Planning Focus Area I.D.
(C1)	Hazardous Waste Site
(L)	Leaking Underground Storage Tank
(H)	Historic Building/District
*	Wetland
†	Church/Synagogue/Religious Institution
▨	Floodplain/Floodway
---	Agricultural Land
---	Special Use Areas
—○—	Major Utility Lines

## IL 137/PETERSON ROAD

Prepared by CH2M HILL in association with METRO Transportation Group and EJM Engineering

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SRA** Strategic Regional Arterial Planning Study **EXHIBIT B-4**

Scale: 0 200 400 feet

# PLANNING FOCUS AREAS

## A) U.S. 41 INTERSECTION

- Intersecting SRA
- Capacity improvements for intersection are constrained by adjacent land use
- Through traffic may be affected by at-grade railroad crossing

## B) U.S. 41 TO THE AMSTUTZ HIGHWAY

- Multiple driveway/cross street access points may affect SRA operation

## C) ELGIN, JOLIET, & EASTERN RAILWAY

- Through traffic may be affected by at-grade railroad crossing

## D) AMSTUTZ HIGHWAY

- New intersecting highway



SUBURBAN SRA -- 120' TO 150' RIGHT OF WAY (DESIRABLE)

### LEGEND

- A Planning Focus Area I.D.
- (C) Hazardous Waste Site
- (L) Leaking Underground Storage Tank
- (H) Historic Building/District
- \* Wetland
- † Church/Synagogue/Religious Institution
- Agricultural Land
- Special Use Areas
- Major Utility Lines

## IL 137/PETERSON ROAD

Prepared by CH2M HILL in association with METRO Transportation Group and EJM Engineering

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SRA** Strategic Regional Arterial Planning Study EXHIBIT B-5

Scale: 0 200 400 feet

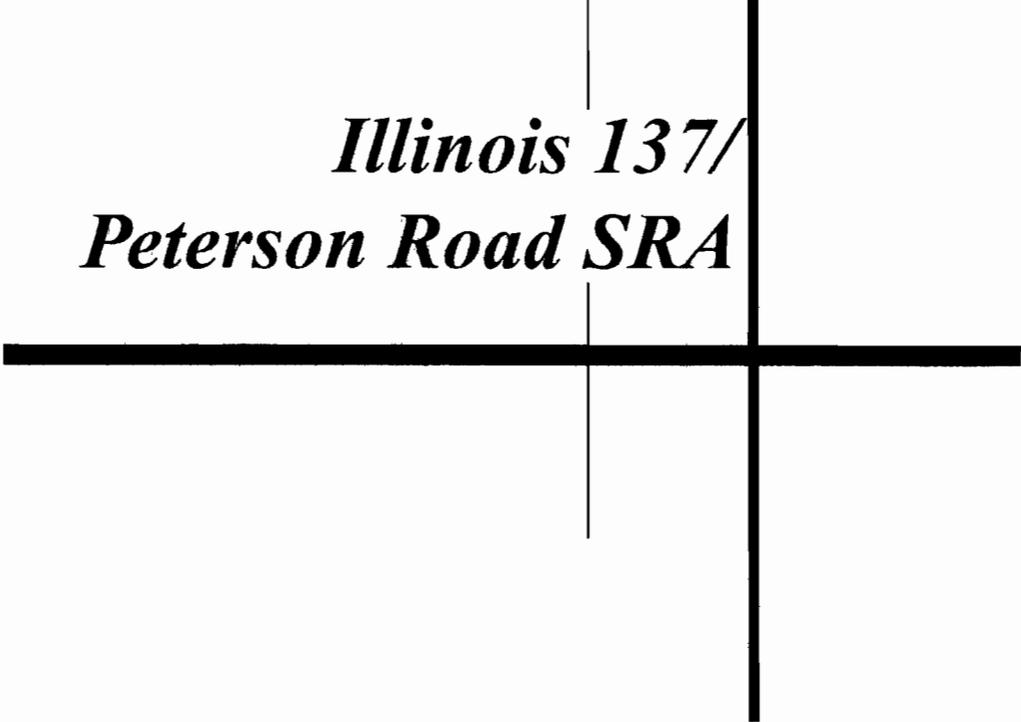
## Summary

The Illinois 137/Peterson Road SRA corridor, which is approximately 9.5 miles, is characterized by many different land uses and environmental concerns. The character of the roadway changes significantly from its western terminus at Illinois 83 to its eastern terminus at the Amstutz Highway. The cross section of the corridor is generally one lane in each direction for the Peterson Road segment and two lanes in each direction for the Illinois 137 portion. In addition, there is a short six-lane cross section between Great Lakes Drive and Ray Street. The western end of the Illinois 137 portion of the corridor is developing with planned expansion of existing developments, as well as new construction. The land in this area of the corridor is not expected to remain undeveloped for long. The land use along the Peterson Road portion of the corridor is mostly agricultural in nature, although there is some industrial development near U.S. 45 and the Wisconsin Central Railroad. This area is also expected to develop in the near future.

Most of the land in the eastern sections of the route has been developed, although there are areas of open land north of the corridor between O'Plaine Road and U.S. 41, and south of the corridor between Illinois 43 and U.S. 41. There are plans for development of the land between O'Plaine Road and I-94, and north of the corridor between Illinois 43 and U.S. 41. East of U.S. 41 in the Great Lakes Naval Training Station, the land is developed, and there are few opportunities for infill development. Traffic volumes also generally increase as Illinois 137/Peterson Road travels east, from a low of 9,200 vpd near Illinois 83 to a higher volume of 24,500 between Peterson Road to Illinois 21, and 22,200 between St. Marys Road and O'Plaine Road. Traffic volumes are expected to increase over the next 20 years.

The planning framework under which the recommended plan was developed is explained in Chapter III. Topics discussed in Chapter III include route design considerations, expected year 2010 transportation system changes and traffic volumes, year 2010 land use planning and development information, and any future areas of concern identified during improvement planning.

*Illinois 137/  
Peterson Road SRA*



**Chapter III**

**Illinois 137/Peterson Road  
SRA Planning Framework**



## Chapter III

# Illinois 137/Peterson Road SRA Planning Framework

Long-range planning for the Illinois 137/Peterson Road corridor must be based on a range of transportation, land use, and community concerns. Regional transportation needs must be balanced with local interests, plans, and constraints.

This chapter outlines the planning framework within which the Illinois 137/Peterson Road corridor should be viewed. Discussion in the chapter addresses both existing problems and conditions, as well as expected or forecast conditions for the long range. The following is a summary of the important elements of the Illinois 137/Peterson Road planning framework:

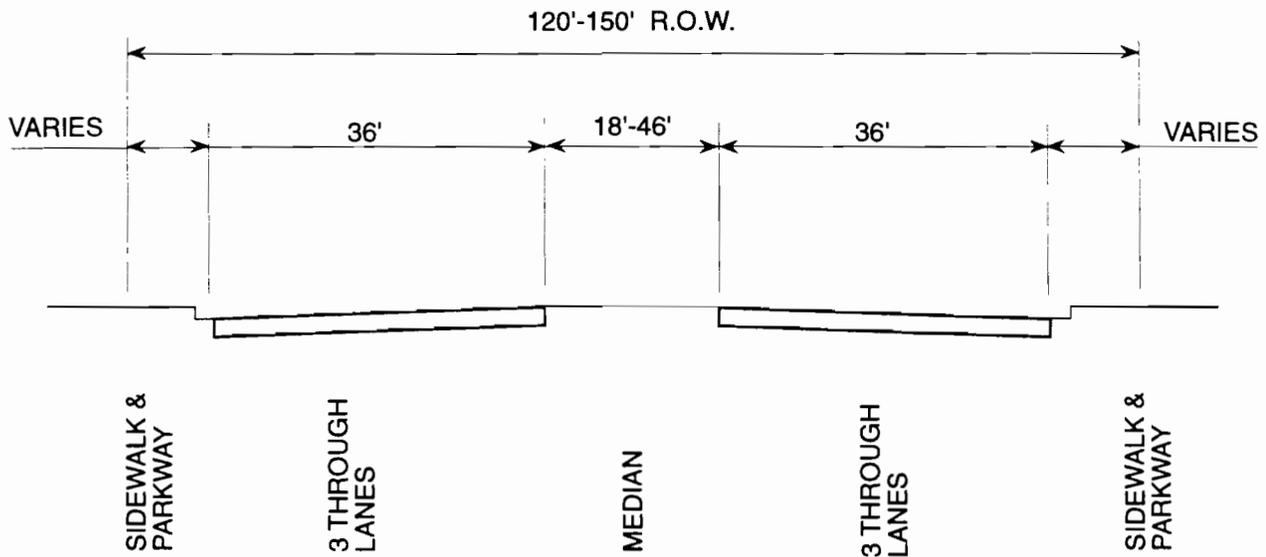
- Functional classification (the role of SRAs in general, and Illinois 137/Peterson Road specifically, in serving regional transportation needs).
- SRA route design considerations and characteristics.
- Long-range forecasts of highway traffic activity along Illinois 137/Peterson Road.
- Other planned transportation improvements within, crossing, or near the Illinois 137/Peterson Road corridor.
- Long-range land use plans for the communities along Illinois 137/Peterson Road, and for Lake County.
- Existing safety and traffic operational problems along Illinois 137/Peterson Road.
- Existing environmental conditions and constraints.
- Community concerns, interests, and attitudes.

These comprehensive and often conflicting inputs were used to establish a basic concept for Illinois 137/Peterson Road, which specifies:

- The number of continuous through lanes in each direction along Illinois 137/Peterson Road.
- Locations of future major signalized intersections.
- Locations of special intersection design needs, such as possible interchanges.
- A general approach to access management.
- The need for and locations of special or unique highway solutions.
- Provision for enhancement of public transportation, including additional stops, park-and-ride facilities, and the interaction of parking facilities with Metra, Pace and CTA services.

### **Functional Classification**

Previous planning efforts by IDOT and CATS have established Illinois 137/Peterson Road as a SRA. Furthermore, the Illinois 137/Peterson Road corridor is classified as suburban for its entire length, from Illinois 83 to the Amstutz Highway. As a suburban SRA, the desirable characteristics of Illinois 137/Peterson Road include six basic continuous through lanes (three in each direction of travel) with a raised median for access control. See Exhibit 3. The desirable six-lane feature is an initial goal in planning, with recognition that it may not be achievable. However, it is essential that any SRA be planned for a minimum of four basic continuous through lanes (two in each direction).



**Suburban Classification**  
 IL 83 to the Amstutz Highway

**DESIRABLE SUBURBAN SRA  
 CROSS-SECTION**

## Route Design Considerations

The SRA Design Concept Report, which serves as a guide in the planning of the SRA system, presents desirable cross sections for each SRA route designation in order to ensure adequate traffic service and geometric design within the right-of-way width indicated. The SRA desirable cross section for the suburban designation is shown in Exhibit 3.

The desirable suburban SRA concept cross section requires 120 to 150 feet of right-of-way. This width accommodates a six-lane roadway (three lanes in each direction) with an 18- to 46-foot raised median. The typical cross section implies a closed-drainage system for roadway runoff by including curb and gutter at the pavement edge. In some areas of the corridor where additional right-of-way is available, it may be desirable to maintain road side ditches to handle runoff from surrounding areas. Other information about the desirable route characteristics of a suburban SRA are listed in Table 10.

Note the existing two-lane, open-drainage cross section along the Peterson Road portion of the corridor is considerably different than the desirable suburban SRA cross section. Right-of-way is significantly less than the maximum 150-foot desirable suburban SRA right-of-way. The Illinois 137 portion of the corridor has a four-lane, closed-drainage cross section along most of its length, which is somewhat closer to the desirable SRA suburban cross section. There also is one short segment of Illinois 137, between Great Lakes Drive and Ray Street, that already approximates the desired suburban SRA cross section.

Recently land use adjacent to certain portions of the corridor has transitioned from rural in character to suburban. The majority of new development, both commercial and residential, has been set back from the Illinois 137/Peterson Road corridor. However, the more established portion of the commercial area west of Illinois 21, the presence of numerous homes across from the forest preserve just east of Illinois 21, and an area of limited right-of-way just west of U.S. 45, limit the possibility of acquiring significant right-of-way.

**Table 10**  
**Desirable Route Characteristics for**  
**Suburban SRAs**

Right-of-Way Width	120 to 150 feet (without roadside ditches)
Level of Service (Peak Hour)/Design Speed	C or D/45 mph
Number of Through Lanes	Three in each direction; 12-foot width
Median Width	18 to 46 feet, raised
Right Turns	Turn lanes at all major intersections
Left Turns	Dual left turn lanes at all major intersections
Shoulders	Where appropriate, 10-foot width and paved
Curbs	Yes, with 2-foot gutters
Sidewalks	Where appropriate, 5-foot width
Parking	Not recommended
Cross Street Intersections	Signals with collectors and arterials New local roads right-in/right-out only
Curb Cut Access	Consolidate access points at 500-foot spacing with cross easements
Transit	Bus turnouts, signs, and shelters, express bus service only, signal preemption and HOV potential
Number of Traffic Signals per Mile	Four maximum
Signalization	Synchronization with pedestrian actuation where needed
Freight:	WB-55 typical/WB-60 Type II truck route
Radii	New Structures: 16' - 3"
Vertical Clearances	Existing Structures: 14' - 6"
Loading	Off-street

Source: SRA Design Concept Report

## The 2010 Transportation Network

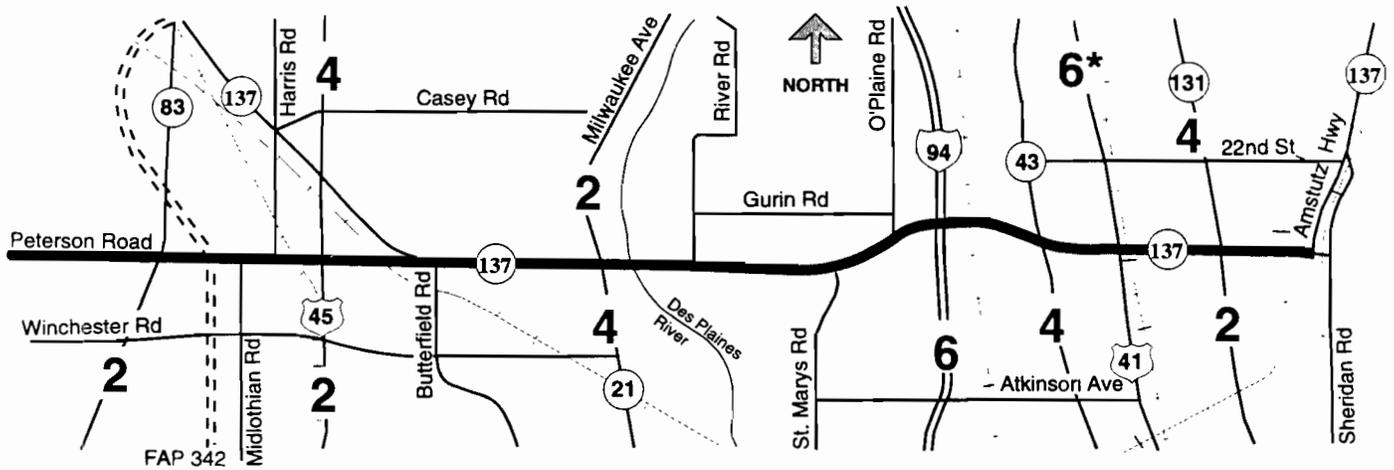
Exhibit 4 illustrates Illinois 137/Peterson Road in a regional context. The corridor is crossed by two SRA routes, Illinois 21 and U.S. 41. These routes, in combination with Illinois 137/Peterson Road, form a network of roadways intended to serve regional travel in the area. Other major arterials that cross Illinois 137/Peterson Road are Illinois 83, U.S. 45, I-94, Illinois 43, and the Amstutz Highway. These non-SRA routes also will have a significant impact on the future operation of Illinois 137/Peterson Road.

Illinois 137/Peterson Road is paralleled by two other SRA routes, Illinois 120 and Illinois 60, which are approximately 3.5 and 4.5 miles north and south, respectively. Illinois 176 also parallels the Illinois 137/Peterson Road corridor approximately 2 miles to the south, but has not been designated a SRA. Numerous lower-class roads also parallel Illinois 137/Peterson Road at much closer distances, but none has the necessary continuity or functional classification to act as an alternate route for the regional trips that Illinois 137/Peterson Road is intended to serve.

Exhibit 4 also shows a planned extension of Illinois 53 (FAP 342) through Lake County from Lake Cook Road to Illinois 120. As of early 1993, this freeway extension is in the route location and environmental impact statement phase. Because FAP 342 is part of the CATS year 2010 transportation plan, it is considered to be part of the long-range network assumed for this study. Its affect on Illinois 137/Peterson Road travel patterns could be substantial, given than an interchange of FAP 342 with Peterson Road is planned.

Illinois 137/Peterson Road also is crossed or affected by six railroad facilities. The Metra C&NW line is immediately east of the eastern terminus of the Illinois 137/Peterson Road SRA. This route does not cross the corridor, but does affect its operation. The Wisconsin Central Railroad west of U.S. 45, the Metra Milwaukee North commuter rail line west of the Illinois 137/Peterson Road interchange, the Chicago, Milwaukee & St. Paul Railroad east of I-94, and the EJ&E Railway between Ray Street and Illinois Street all cross Illinois 137/Peterson Road. The Metra Milwaukee North line and the Chicago, Milwaukee & St. Paul Railroad cross over and under Illinois 137/Peterson Road, respectively. The other three rail lines cross at-grade.

Note: Illinois 120 (SRA) 3.5 miles  
 North of Illinois 137/Peterson Road  
 (To be studied)



Note: Illinois 176 (Non-SRA) 2 miles  
 South of Illinois 137/Peterson Road

Note: Illinois 60 (SRA) 4.5 miles  
 South of Illinois 137/Peterson Road  
 (To be studied)

- 4** Number of Existing Through Lanes  
 (Both Directions of Travel)
- 6\*** Current SRA Route Recommendation  
 of Corridor Under Study

# FUTURE TRANSPORTATION NETWORK IN THE VICINITY OF ILLINOIS 137 /PETERSON RD

## **Year 2010 and Existing Traffic**

Forecasts of traffic volumes were prepared by CATS to illustrate the level and pattern of traffic under expected future conditions. The forecasts were based on regional land use assumptions furnished by Northeastern Illinois Planning Commission (NIPC), and assume a network as specified in the year 2010 plan. The 2010 plan includes implementation of the full SRA system, designed to the desirable SRA criteria. Specific to Illinois 137/Peterson Road, the forecasts also assume that FAP 342 is in place.

The traffic forecasts are used as a reference only—not as a primary tool in corridor sizing. They provide a means, particularly when compared to existing traffic, of judging the long-range need for corridor improvements. In short, traffic volumes are expected to increase over the next 20 years. Employment and population growth will continue to be significant in Lake County.

As Table 11 shows, the projected volume of traffic along Illinois 137/Peterson Road varies from approximately 20,000-30,000 vehicles per day (vpd) on the west end of the corridor (reflecting the influence of FAP 342) to 25,000-35,000 vpd on the east end. Traffic volumes along the entire Illinois 137/Peterson Road SRA are forecast to increase, although at different rates from west to east. In general, the western end of the corridor is expected to experience significant growth in land development and, therefore, greater increases in traffic volumes. At the east end of the corridor, with the exception of the open land between I-94 and U.S. 41, growth in land use activity is expected to slow as the area matures. Currently, the only parcel of land between I-94 and U.S. 41 that has been proposed for development is the land north of the corridor between Illinois 43 and U.S. 41. The remainder of the open land between I-94 and U.S. 41 is zoned for office use, and is expected to develop in the near future. This development, in conjunction with the completion of the Amstutz Highway (the Lakefront Highway), which overlaps the SRA corridor from I-94 to its eastern terminus, contributes to a projected doubling of traffic east of I-94. Only moderate development growth is projected in the central section of the corridor between the Peterson Road interchange and I-94. Traffic in this area is forecast to increase by 30 to 40 percent. This is consistent with the relatively mature development and extensive parks and forest preserve in this section.

**Table 11**  
**Year 2010 Average Daily Traffic (ADT)**  
**Forecast for the Illinois 137/Peterson Road SRA**

<b>Location</b>	<b>Existing ADT (vpd) (1992)</b>	<b>2010 ADT (vpd) Forecast<sup>a</sup></b>
Illinois 83 to Illinois 137	9,000-11,000	20,000-30,000
Peterson Road to Interstate 94	20,000-25,000	20,000-35,000
Interstate 94 to Illinois 43	25,000	35,000-45,000
Illinois 43 to U.S. 41	19,000	30,000-40,000
U.S. 41 to the Amstutz Highway	21,000	25,000-35,000

<sup>a</sup>Source: Chicago Area Transportation Study, Lake County Sub-Area Assignment G7.

## Other Corridor Planning Activities

### Roadway Improvements

Previous and current planning information was obtained for the Illinois 137/Peterson Road SRA corridor from IDOT, CATS, Lake County, and surrounding communities. None of the projects covered in these documents were considered existing conditions (expected to be complete within the next five years).

Other on-going projects plans or studies that will have an influence on proposed Illinois 137/Peterson Road improvements include:

- The Phase 1 study for the Illinois 53 extension (FAP 342). This proposed route (currently under study) was considered more long range in nature. It is anticipated that FAP 342 will have an interchange with Peterson Road.
- Lake County has designated Peterson Road as a fully access controlled facility west of U.S. 45.
- Phase I study for Illinois 21 and U.S. 45 at the intersections with Illinois 137.
- Phase I study of Illinois 137 from I-94 to Great Lakes Drive. The scope of the Illinois 137 study includes improving intersections, and the investigation of widening the corridor to three lanes in each direction.
- The Illinois State Toll highway Authority is providing full access at Illinois 137 by adding ramps to and from the north. This project also includes widening Illinois 137 to three lanes through the interchange. Construction is scheduled for completion in 1995.
- The final Environmental Impact statement for the Amstutz Highway. This study presents information regarding implementation of the entire Amstutz Highway (Lakefront Highway) corridor.

A list of previous and current studies relevant to Illinois 137 is presented in Table 12.

**Table 12**  
**Summary of Previous and Current Planning Studies Relevant to Illinois 137/Peterson Road**

Study, Plan, or Report	Source	Status as of 1994
<p>Transportation Planning Studies</p> <ul style="list-style-type: none"> <li>• CATS 2010 Transportation System Development Plan</li> <li>• Illinois 21—Strategic Regional Arterial Report (1992)</li> <li>• Combined Location/Design Report-Lake Front Highway (FAP 437) from I-94 to Illinois 132 (1985)</li> <li>• Final Environmental Impact Statement—Lake Front Highway (FAP 437) from I-94 to Illinois 132</li> <li>• Combined Location/Design Report—Illinois 21 from Illinois 137 to Washington Street</li> <li>• Metra "Project Proposal" Booklet</li> </ul>	<p>CATS</p> <p>IDOT</p> <p>IDOT</p> <p>IDOT</p> <p>IDOT</p> <p>Metra</p>	<p>Official</p> <p>Official</p> <p>Official</p> <p>Official</p> <p>Ongoing</p> <p>Ongoing</p>
<p>Land Use and Comprehensive Plans</p> <ul style="list-style-type: none"> <li>• Comprehensive Plan (1985, Edited 1991)</li> <li>• Comprehensive Plan (1992)</li> <li>• Lake County Framework Plan (1989)</li> </ul>	<p>Libertyville</p> <p>Round Lake Park</p> <p>Lake County Dept. of Planning, Zoning, and Environmental Quality</p>	<p>Official</p> <p>Official</p> <p>Official</p>
<p>Other Plans and Studies</p> <ul style="list-style-type: none"> <li>• Comprehensive Operating Plan</li> <li>• Future Agenda for Suburban Transportation (1992)</li> <li>• FAP 342 (Illinois 53 Extension) Public Meeting Brochure and Right-of-Way (4/29/93)</li> <li>• Buckley Road/I-94 Interchange Plan (4/26/93)</li> <li>• Traffic Planning Study Summary Report for Abbott Park Northeast</li> <li>• Project Location Plans—Illinois Route 43 Intersection (and Abbott Driveway to Meridian St. enclosure)</li> <li>• Several Plan Sets for FAP 437 (Lake Front Highway)</li> <li>• Alternative 4-U.S. 41 At-Grade Intersection Plans</li> <li>• Ascension Cemetery Plans (1949,1982)</li> <li>• Plat of Survey of County Highway 20 and 48</li> <li>• Intersection Design Study—Illinois 137 and U.S. 41 (1985)</li> <li>• Intersection Design Study—Illinois 137 and U.S. 45</li> </ul>	<p>Pace</p> <p>Pace/Metra</p> <p>IDOT</p> <p>ISTHA</p> <p>Metro Transportation Group, Inc.</p> <p>IDOT</p> <p>IDOT</p> <p>IDOT</p> <p>Archdiocese of Chicago</p> <p>Lake County</p> <p>IDOT</p> <p>IDOT</p>	<p>Official</p> <p>Official</p> <p>Current</p> <p>Under Construction</p> <p>—</p> <p>Preliminary</p> <p>Preliminary to Final</p> <p>Preliminary</p> <p>Official</p> <p>Official</p> <p>Official</p> <p>Official</p>

## **City and Village Comprehensive Plans**

Information regarding local transportation plans, land use plans, and community objectives was gathered from the comprehensive plans of the villages and cities along Illinois 137/Peterson Road. Table 12 lists the plans made available and reviewed in conjunction with the overall corridor planning.

## **Transit Improvements**

Two transit-related improvements in the vicinity of Illinois 137/Peterson Road have been proposed, studied, or planned. See Table 13. Metra has provided a ‘‘Project Proposal’’ booklet on the feasibility of providing commuter trains on the Wisconsin Central Railroad. The 2010 Transportation System Development Plan by CATS states commuter service would be provided from Chicago to Libertyville. Extension of commuter service north to Antioch is planned using the Wisconsin Central tracks west of U.S. 45. Two locations have been identified for a Libertyville station along this priority transit project. One station is at Harris Road, and the other is at Illinois 137, at the junction of Wisconsin Central Railroad and the Metra Milwaukee North commuter railroad tracks.

Metra also is studying the potential use of the EJ&E Railway, located at the eastern end of the corridor, for commuter rail service. This project is part of Metra’s year 2010 transportation plan, and is considered long range.

Table 13 also notes a possible extensions of the Milwaukee District North Line. No new bus routes or upgrades of bus routes are planned on Illinois 137/Peterson Road. There currently are no new park-and-ride lots planned, although one may be constructed once the I-94 interchange construction is completed.

**Table 13**  
**Future Transit Facilities and Operations Proposed**  
**and/or Planned By Others for Illinois 137/Peterson Road**

Transit Facility or Route	Location	Status/Comment
Wisconsin Central	Crosses corridor west of U.S. 45	Proposed new Metra commuter line between Antioch and Franklin Park; proposed nearby stations in Grayslake, Libertyville, and Mundelein
Milwaukee District/North Line-Wadsworth Extension	Crosses just east of I-94 (Tri-State Tollway)	Proposed extension of Metra commuter service to far north suburbs; reopening of Rondout station (at IL 176) to handle transfers between commuter branches; proposed Abbott Park (22nd Street) Station
EJ&E	Crosses between Ray Street and Spaulding Street in Great Lakes Naval Training Center	Proposed circumferential Metra commuter line; potential stations at Rondout (Milwaukee District/North Line at IL 176), IL 43- Waukegan Road, U.S. 41, IL 131- Green Bay Road, and North Chicago (22nd Street)

### Future Land Use and Development

Information regarding existing and future land use plans was obtained from field observations, input from the Illinois 137/Peterson Road Advisory Panel, and from the various communities, regional organizations, and counties that Illinois 137/Peterson Road serves. See Table 12.

## **Future Conditions**

In general, future land use along the Illinois 137/Peterson Road corridor is expected to be primarily residential, with several areas of commercial and office development. The area immediately west of Illinois 21 is the most notable commercial area, and the area between I-94 and U.S. 41 contains the greatest concentration of office space. The Great Lakes Naval Training Station is adjacent to the Illinois 137/Peterson Road corridor between U.S. 41 and the Amstutz Highway. This area includes a golf course and Downey Veterans Administration Hospital. Great Lakes has been upgraded, with additional activity and personnel added in recent military reorganizations. The following summary describes important areas where land use is changing, or where particularly intensive development is expected:

- The open land adjacent to Illinois 137/Peterson Road between I-94 and U.S. 41 is expected to develop as office space.
- Adjacent land uses will remain commercial near Butterfield Road, Illinois 21, and U.S. 41.
- Land use between Butterfield Road and Illinois 21 will be a mixture of commercial, residential, and park land.
- Development between Illinois 21 and I-94 is almost complete, and includes forest preserve, cemetery land and residential uses.
- Land uses adjacent to Peterson Road will generally be industrial or office in nature.

The following is a summary of key constraints and unique conditions described in Chapter II. Such constraints influenced the development of the overall concept for the corridor.

## **Existing Environmental Constraints, Unique Conditions and Areas of Concern**

### **Illinois 83 to Illinois 137 (Peterson Road)**

There is a potential historic building in the southeast quadrant of the Illinois 83/Peterson Road intersection. The area between Harris Road and U.S. 45 has multiple access points, and an at-grade railroad crossing. Within this section, there are aboveground high-pressure pipeline facilities on opposite sides of Peterson Road. These facilities limit right-of-way in this area. The presence of natural gas pipelines below the roadway also is a concern in this area.

### **Peterson Road to St. Marys Road (Illinois 137)**

This segment includes the Illinois 137/Peterson Road interchange. This interchange is configured with the through traffic lanes following Illinois Route 137 northward. Route continuity along the Illinois 137/Peterson Road SRA corridor requires consideration of changing this interchange to make the east-west movement the through movement. The commercial area west of Illinois 21 limits available right-of-way, and produces multiple access points. From Illinois 21 to St. Marys Road, there are multiple residential access points (mostly to the south), and limited available right-of-way due to the existing development, forest preserves (Des Plaines River Corridor, River Road Woods Natural Area, and Wilmot Woods), and a cemetery.

Leaking underground storage tank (LUST) sites also have been identified east of Cass Drive, and in the southeast quadrant of the Illinois 21 intersection. A CERCLIS site also has been identified on the Lake County Grading Company property that accesses the corridor. Wetlands have been identified north of the corridor between Sunnyview Road and Cass Drive, near River Road, and near Oak Grove Avenue, as well as to the south of the corridor near the Des Plaines River.

### **St. Marys Road to the Amstutz Highway**

Between St. Marys Road and I-94 there are multiple closely spaced access points. Right-of-way is limited by Acension cemetery and existing development. Wetlands have been identified north of the corridor in this area, on both sides between I-94 and Illinois 43, and

in the northwest quadrant of the U.S. 41 intersection. Available right-of-way also is limited east of the I-94 interchange by a protected natural area. East of U.S. 41, the Naval Golf course is part of the floodplain for the Skokie River, severely limiting available right-of-way. East of U.S. 41, multiple access points, and two at-grade railroad crossings affect operations. The corridor terminates at the Amstutz Highway, a limited-access highway extending northward.

### **Community Concerns, Interests and Attitudes**

The interests of the communities through which Illinois 137/Peterson Road passes are essential factors in the development of a reasonable consensus plan for the SRA. A corridor advisory panel was established, comprised of elected officials and technical staff from the communities along Illinois 137/Peterson Road. Three panel meetings were held to present SRA concepts, to discuss the corridor and recommended draft plan and report, and to provide the IDOT consultant with background on community interests and concerns.

Chapter V contains minutes from the three meetings, which were held on April 8, 1993, September 28, 1993, and September 19, 1995. The following is a summary of key concerns discussed during these meetings:

- Comments were made with regard to the Lake County plan for Peterson Road as a four-lane freeway, and the planned extension of Midlothian Road north, and the extension of Harris Road south. The freeway plan did not consider the FAP 342 project.
- It was noted that the Army Corp of Engineers has plans to construct berms east of the Des Plaines River and south of the corridor.
- It is important to maintain access to commercial property west of Illinois 21.
- Corridor plans should incorporate planning for a bicycle route from west on Peterson Road to the Forest Preserve east of Illinois 21, and should accommodate the Green Oaks plan for a system of trails.

- Concerns about effects of SRA proposals on businesses adjacent to the Illinois 21 intersection were noted.
- It was suggested there should be an interchange between U.S. 41 and Illinois 137, and the crossing of the C&NW freight line east of U.S. 41 should be grade separated.

Following the second meeting of the advisory panel, correspondence was received from a number of communities regarding the basic corridor concept for Illinois 137/Peterson Road. Chapter V contains copies of the correspondence

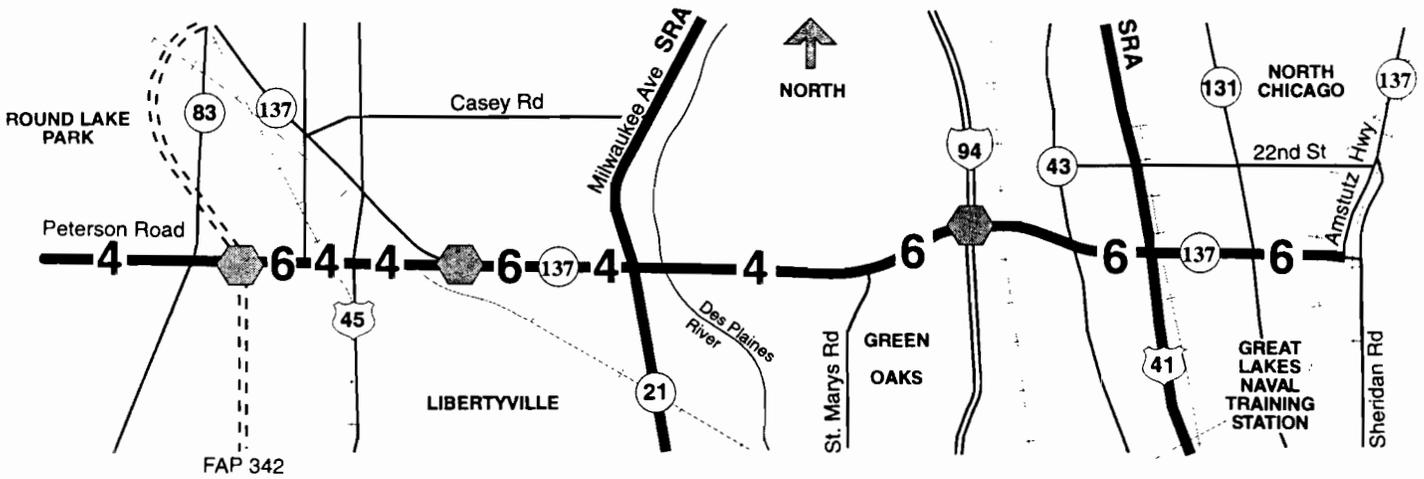
The draft recommended plan was presented at the third panel meeting, and a public hearing was held on October 3, 1995. The following concerns were expressed at the hearing; responses are included in Chapter V of this report.

- Concern that access be provided to existing vegetable stand business located off Peterson Road west of IL 83.
- Concern that right of way taken to the south, west of the METRA-Milwaukee North Line could affect the Livertyville Township Open Space District and Libertyville Soccer Complex.
- Concerns about the location of the bike path along Peterson Road.

The input received from all these sources was taken into account in the production of this final report and the recommended plan presented in Chapter IV.

### **Recommended SRA Corridor Concept for Illinois 137/Peterson Road**

Based on the above input, the recommended corridor concept illustrated in Exhibit 5 was established for Illinois 137/Peterson Road. The concept elements include basic number of through lanes, intersection and interchange requirements, access control and median treatments, and special design features.



**6** Number of Future Through Lanes  
(Both Directions of Travel)

 Grade Separations  
and/or Interchanges

## RECOMMENDED SRA CORRIDOR CONCEPT ILLINOIS 137/PETERSON RD

## **Basic Number of Lanes**

The Illinois 137/Peterson Road Corridor is a vital east-west facility serving a rapidly developing area of Lake County. The importance of Illinois 137/Peterson Road is heightened by the major north-south corridors it intersects. Currently, the corridor intersects Illinois 83, U.S. 45, Illinois 21, Illinois 43, and U.S. 41. In addition to existing interchanges with I-94 and the Amstutz Highway, an interchange with the future FAP 342 is being planned.

Strictly from a regional transportation perspective, the need for a continuous six-lane arterial is feasible. Development of a feasible corridor concept, however, must be based on the effects of its implementation on adjacent land uses, environmental considerations, coordination and compatibility with other jurisdictional plans, and other transportation factors.

Existing right-of-way ranges from 80 to 170 feet. Currently, there are a number of long stretches of Illinois 137/Peterson Road where existing right-of-way is limited to 80 feet—well short of the 150 feet necessary for a full six-lane SRA. Furthermore, development has intensified in many areas, creating the potential for costly and/or disruptive impacts to residences or business should additional right-of-way be sought. More specifically, continuous constraints on right-of-way include the Libertyville commercial area at Illinois 21, Lake County Forest Preserves and residential properties east of Illinois 21, and developed land on both sides of Illinois 137 east of U.S. 41. Although the 150-foot dimension is achievable along some segments, it is not possible over most of the corridor.

With consideration of the above points, it is recommended that the Illinois 137/Peterson Road cross section include four-lane and six-lane sections. Specific cross sectional treatment is discussed in detail in Chapter IV.

## **Intersection and Interchange Improvements**

A more cost-effective and less disruptive strategy (in terms of overall effects) for SRA corridor improvements focuses on the major intersections. Maintaining reasonable average

speeds and achieving peak period levels of service per SRA criteria will require capacity upgrading of most intersections along Illinois 137/Peterson Road. Spot widening (requiring additional right-of-way) for dual left-turn lanes and for right-turn lanes will be an essential elements of the overall corridor concept, particularly at the Illinois 137/Peterson Road intersection with other SRAs.

At certain specific locations, interchanges will be implemented or upgraded. These locations include crossing freeways or tollway (FAP 342 and I-94). Also, one additional location, U.S. 41, is noted in Chapter IV for special interchange or grade separation consideration.

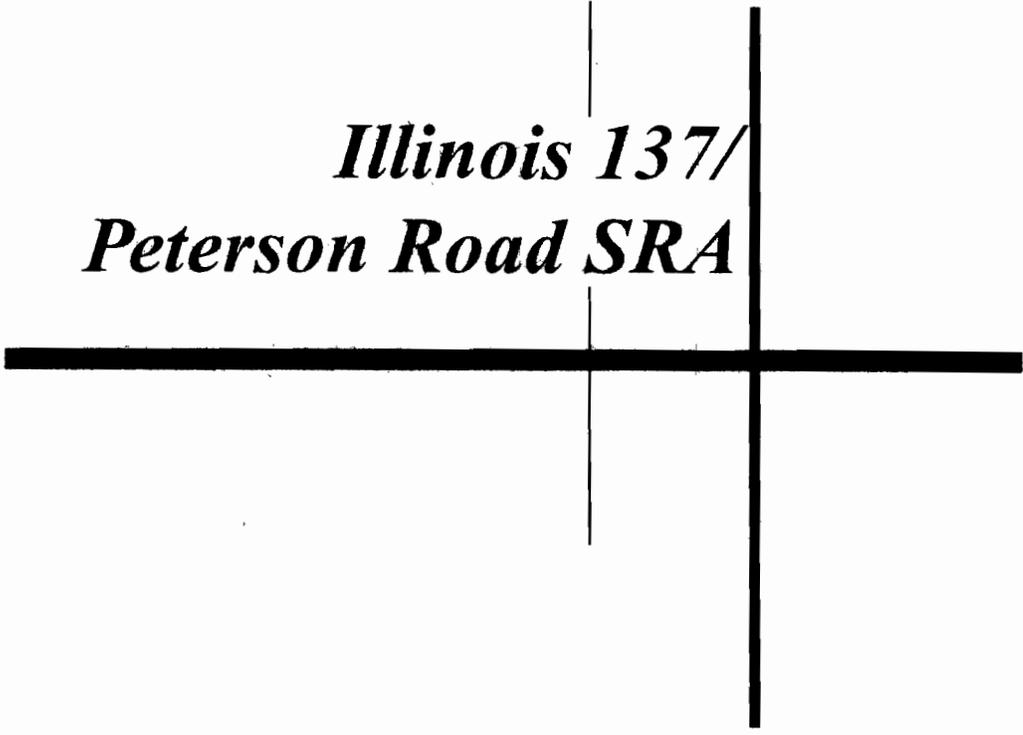
### **Access Control**

The frequency and spacing of full access points and the locations of signalized intersections are important considerations in operating the recommended arterial. The Illinois 137/Peterson Road corridor concept calls for limiting access points wherever possible: for example, eliminating offset driveways by realigning driveways to form conventional four-way intersections. The Illinois 137/Peterson Road corridor concept calls for implementing raised medians wherever feasible. The raised median enables strict and safe control over left-turn in/out movements, thereby optimizing the capacity of the four-lane and six-lane sections. Median openings will be provided at intersections, and/or at appropriate intervals for commercial and residential access.

Recommended median treatments vary along the corridor, including raised, wide medians and narrow, flush medians. Maintaining a median of sufficient width to shelter left-turn movements is essential throughout all of the route. Where a raised median would be difficult to implement, flush medians are recommended.

Chapter IV discusses in detail the proposed plan for implementing the SRA concept for Illinois 137/Peterson Road.

*Illinois 137/  
Peterson Road SRA*



**Chapter IV**

**Recommended Illinois 137/  
Peterson Road SRA Plan**



## **Chapter IV Recommended Plan for the Illinois 137/Peterson Road SRA Corridor**

This chapter details the recommended plan for the Illinois 137/Peterson Road SRA corridor. The discussion is divided into the three previously defined segments noted in Chapter II (see page II-1). Specific geometric and/or operational recommendations and unique features or special roadway designs are presented.

The description of the recommended improvement plan is supplemented by an evaluation of the operational characteristics of the plan such as level of service and operating speed under future traffic conditions. In addition, a planning-level opinion of potential construction and right-of-way acquisition costs are presented for each segment of the corridor. Costs are based on unit-generalized costs as furnished by IDOT for SRA planning purposes.

Construction costs reflect the general magnitude of the proposed SRA relative to the existing roadway. Quantities were estimated on a per-mile basis, with provisions for major items such as new bridges, interchanges and major intersection improvements. Right-of-way costs are based on a general assessment of acreage required according to the proposed typical section, existing right-of-way, and current unit costs of right-of-way acquisition as furnished by IDOT. Specific building acquisitions and/or damages are not identified. Actual right-of-way acquisition, damages, or both would be determined during Phase I studies.

Other studies and planned improvements affecting this corridor are referenced in Chapter III under the heading of "Other Corridor Planning Activities." The recommended plan described herein either incorporates these projects as meeting SRA improvement goals, or builds from these plans.

The exhibits that accompany each segment discussion present the layout of the proposed roadway in relation to the existing roadway unless otherwise noted. The proposed traveled way (i.e., edge of pavement to edge of pavement) is highlighted in the plan. Additional right-of-way requirements, lane arrangements at signalized intersections, locations of proposed and existing signals, and the proposed cross sections also are shown. Note: aerial mapping used for Exhibits C1 through C5 is based on 1989 to 1990 photography. See Exhibits C1 through C5.

## **Segment I— "Peterson Road"** **(Illinois 83 to Illinois 137 Interchange)**

Segment I of the Peterson Road/Illinois 137 SRA corridor extends from the intersection of Illinois 83 to the interchange with Illinois 137, a distance of about 1.7 miles. Areas and communities served by this segment include Round Lake Park, Libertyville, and unincorporated Lake County.

### **Cross Section and Geometric Characteristics**

Existing Peterson Road is a two-lane roadway within a typical right-of-way of 80 feet. Improvements to this section of Peterson Road would begin approximately one-half mile west of existing Illinois 83, where the roadway would widen to four lanes with a 22-foot barrier median and curb and gutters within a typical right-of-way of 160 feet.

East of relocated Illinois 83, Peterson Road would be widened. The proposed typical cross section would consist of three lanes in each direction of travel, a raised 30-foot median, with a closed drainage curb-and-gutter section. The cross section is designed to be compatible with the proposed new interchange with FAP 342. This section would continue until east of the Harris Road intersection. Note that the alignment of Peterson Road has been shifted to the north to avoid high-pressure gas lines on the south side of Peterson Road. The proposed right-of-way ranges from 160 to 210 feet, as has been platted by Lake County as part of ongoing efforts to widen this section of Peterson Road. Additional right-of-way is shown as 60 feet on the north and 20 feet on the south due to the presence of three high-pressure gas lines.

East of Harris Road, the proposed roadway would narrow to a four-lane cross section with an 18-foot median within 110 feet of right-of-way. This narrower right-of-way is necessary to avoid two aboveground gas pipeline facilities, one on the north side of Peterson Road just west of the Wisconsin Central rail line, and the second located on the south side of Peterson Road immediately east of the rail line. East of the Wisconsin Central rail line, the four-lane cross section would be retained. The median, however, would be widened to 30 feet. A closed drainage curb-and-gutter section would be implemented. This cross section would extend to just west of the Metra-Milwaukee North Line. Widening would take place along the north side of the roadway, within 120 feet of right-of-way.

West of the Metra North Line, Peterson would be realigned to the south. See Exhibit C-2. This realignment is recommended primarily as a means of developing a frontage road system to maintain access to three properties located on the north side of Peterson Road west of the Metra Line.

The frontage road system and corresponding realignment is suggested rather than right-in/right-out driveways with median openings because the proximity of the interchange, the railroad embankment, and the alignment curves limit sight distance in advance of the median openings needed to serve the right-in/right-out driveways. The proposed realignment would have the added benefit of improving the horizontal alignment west of the interchange with Illinois 137.

Access control has been established by Lake County for sections of Peterson Road including the area east of the proposed interchange with FAP 342 through the intersection with U.S. 45. Between proposed FAP 342 and U.S. 45, full access is currently limited by statute to crossroads, specifically Midlothian Road, Harris Road, Franklin Street and Industrial Drive. Any future access resulting from development of adjoining properties will be via these crossroads. Existing single-use and field entrances can remain as right-in/right-out access points as long as existing land use is maintained. As the spacing of crossroads and signalized intersections meet only minimum spacing criteria for median openings, no additional openings are included in the SRA plan.

Other geometric recommendations include the extension of Midlothian Drive to the north. This recommendation is to be consistent with Lake County plans, and to facilitate access to the new rail station.

In addition to the roadway improvements noted above, the plan includes construction of a 10-foot bicycle path between Illinois 83 and the Commonwealth Edison right-of-way east of Butterfield Road. Proposed right-of-way and typical sections for this segment of Peterson Road reflect the addition of this element.

Exhibit C-1 depicts the proposed SRA plan for this segment.

## Floodplain, Wetland and Drainage Considerations

There are no reported occurrences of flooding within Segment I, nor are there any ADID wetlands potentially affected by improvements to Peterson Road.

According to a Lake County Stormwater Management Commission (SMC) ordinance adopted June 8, 1992, compensatory storage must be provided when fill or materials are placed in floodplains, which drain more than 100 acres. There are three possible instances of encroachment in the Peterson Road segment as follows:

- At Harris Road, Peterson Road skirts north of a floodplain at the headwaters of the Bull Creek Tributary. The proposed plan shows most widening to take place to the north. Detailed design studies are necessary to confirm if encroachment can be avoided in this location. This floodplain is administered by the SMC.
- East of U.S. 45 and north of Peterson Road, the west branch of the Bull Creek Tributary dips south towards Peterson Road. The proposed plan calls for widening within the existing right-of-way. Further studies will be necessary to determine if the floodplain extends into the right-of-way. If so, the roadway could be shifted south to avoid floodplain encroachment. This floodplain is administered by the SMC.
- Just west of the Illinois 137 interchange, Peterson Road crosses the Bull Creek Tributary. This waterway is under the jurisdiction of the SMC and the Illinois Department of Water Resources (DOWR). The proposed improvements call for widening and relocating the roadway, in which case a transverse encroachment would be unavoidable. Compensatory storage of 120 percent of the net fill would be required. In addition, flood insurance data indicate that overtopping of the roadway occurs at this location. The roadway profile may require raising to meet freeboard requirements.

The Lake County SMC encourages the use of grass medians to reduce runoff and open ditches along the roadway to provide greater natural storage for non-roadway drainage from adjoining areas. Evaluation of both of these approaches appears warranted in this

segment. Storage will be required for additional runoff as a result of roadway widening. In addition, the first one-half inch of runoff must be stored for 24 hours prior to any discharge directly into wetlands, lakes or ponds.

## **Traffic Control, Operations and Safety**

Within this segment, anticipated growth and planned development adjacent to the corridor, coupled with the proposed FAP 342 interchange (see Exhibit C-1), are predicted to increase traffic levels from 10,000 vehicles per day (vpd) to as high as 30,000 vpd. To accommodate this growth, it is essential that the SRA corridor plan not only increase the typical section along Peterson Road, but establish a long-range framework that reinforces the operational and safety objectives of the SRA system. Key elements to establishing this framework are the location of future traffic signals and the maintenance of median access control.

The diagrams along the top of each SRA plan exhibit indicate locations of existing and proposed signalized intersections, the lane arrangements at these locations, and spacing to adjacent signals. The plan itself indicates the locations of median access breaks. Where no break is shown, it is the intent of the plan that vehicles entering or exiting driveways or other existing and future access points be restricted to right-in/right-out movements only.

The traffic control plan includes retention of the one existing signal at U.S. 45. Moreover, the plan calls for six new potential signalized intersections. Three of these new intersections are a result of the proposed new FAP 342 interchange with Peterson Road east of Illinois 83. Exhibit C-1 shows the preliminary location of FAP 342, a proposed north-south corridor. A parclo AB interchange would be developed, creating two new signalized intersections along Peterson Road. The interchange would be located on the north side of Peterson Road with traffic movements provided to/from the north. In conjunction with FAP 342, Illinois 83 would be relocated approximately 800 feet to the west to maintain minimum signal spacing.

Two new signalized intersections are recommended between FAP 342 and U.S. 45. The first signal located at Midlothian Road would provide access to the proposed rail station north along Midlothian. Approximately one-quarter mile to the east, a signal would be

added at Harris Road. If required in the future, this signal could provide access to development south of the corridor in concert with the extension of Harris Road to the south.

Improvements to the intersection with U.S. 45 are illustrated in Exhibit D-1, including the addition of an exclusive right-turn lane, a through lane, and a second left-turn lane on the Peterson Road approaches.

A future signalized intersection also has been included in the plan about 1,000 feet east of U.S. 45. Although this spacing does not meet the one-fourth mile criteria for spacing of signalized intersections, this full-access point is necessary to serve potential development of properties on both sides of Peterson Road.

To verify the reasonableness of the recommended improvements, a planning-level intersection capacity analysis was performed. Table 14 shows the results of that analysis for all future signalized intersections along this segment of Peterson Road. The analysis used CATS year 2010 SRA forecast traffic volumes as a general reference. As noted in the table, assumptions for unavailable minor crossroad traffic volumes were made. Other capacity analysis assumptions are detailed in Appendix A. The analysis indicates all signalized intersections as proposed will operate within acceptable levels of service within this segment. With proper signal coordination, the proposed roadway plan would serve future traffic volumes without congestion or unreasonable delay.

The traffic control plan, the geometric plan, and the access control plan under development by Lake County should address future potential safety and operational needs.

## **Public Transportation**

Existing elements of public transportation in Segment I of this corridor include Pace Route 572, which crosses Peterson Road on U.S. 45, and the planned addition of commuter rail service using the Wisconsin Central Railroad tracks located west of U.S. 45. A station serving Libertyville will be located about a mile north of Peterson Road.

**Table 14**  
**Evaluation of Signalized Intersection Operations Along**  
**Segment I (Illinois 83 to Illinois 137) of Peterson Road**

Intersection of IL 137/Peterson Road	Lane Arrangements <sup>b</sup>		Year 2010 ADT (vpd) <sup>c</sup>		v/c for Intersection <sup>d</sup>
	SRA	Crossroad	SRA	Crossroad	
IL 83 <sup>a</sup>	LL-TTT-R	L-TT-R	20,000	7,800	0.38
FAP 342 SB Ramps <sup>e</sup>	LL-TTT TTT-R	LL-R	25,000	8,000	0.66
FAP 342 NB Ramps <sup>e</sup>	LL-TTT TTT-R	LL-R	27,000	8,000	0.69
Midlothian Road	L-TTT-R	L-T-R	27,000	14,100	0.77
Harris Road <sup>a</sup>	L-TTT-R	L-T-R	24,800	5,000	0.45
U.S. 45 <sup>a</sup>	LL-TT-R	L-TT-R	21,400	23,700	0.72
Local Access <sup>e</sup>	L-TT-R	L-TR	19,700	5,000	0.56

Note:     \*Denotes SRA corridor.  
<sup>a</sup>Assumed for unavailable volumes: 20,000 vpd for major arterials, 12,000 vpd for minor arterials, and 5,000 vpd for local roadways.  
<sup>b</sup>L = Left-turn lane; T = through lane; R = right-turn lane; and TR = through and right-turn lane.  
<sup>c</sup>ADT = Average Daily Traffic.  
<sup>d</sup>v/c = Volume to Capacity Ratio.

Transit-related elements of the SRA plan for this segment include the following:

- Installing signing on Peterson Road at Harris Road directing traffic towards the Libertyville Metra station of the Wisconsin Central line.
- Installing signing on Peterson Road at U.S. 45 directing traffic toward the Mundelein Metra station of the Wisconsin Central line.
- Reserving right-of-way in the vicinity of Illinois 83 and the proposed FAP 342 for a park-and-ride facility.

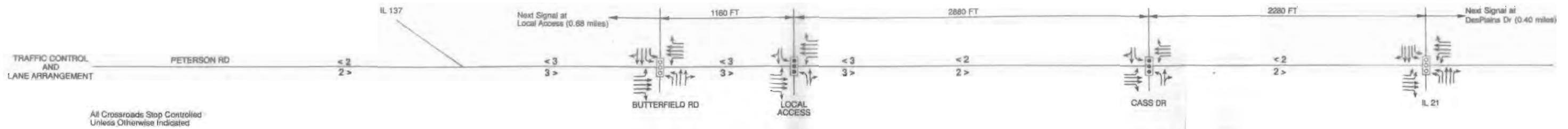
- Incorporating transit-friendly features into the design and final right-of-way needs of the proposed roadway to enhance transit service if/when service is begun to Peterson Road. Features that should be incorporated into corridor improvement designs include allowances for bus shelters at logical crossroads, bus turnouts at high-conflict locations, and providing for transit vehicle signal preemption in the design of future traffic signal systems.

### Construction and Right-of-Way Costs

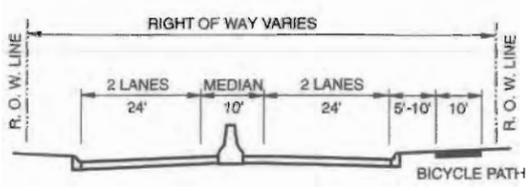
The consultant's opinion of the total cost of the recommended plan for Segment I is \$9.05 million in 1991 dollars. See Table 15. This estimate of total costs includes costs of construction, acquisition of right-of-way, and major structures. Improvements to Illinois 137 associated with the proposed FAP 342 interchange are not included in the estimate of construction costs. Construction of a bicycle trail through this section is not included.

<b>Table 15</b> <b>Opinions of Construction and Right-of-Way Cost for</b> <b>Segment I of IL 137 and Peterson Road</b> <b>(1991 Dollars)</b>	
Roadway Reconstruction/Resurfacing	\$6,200,000
Intersections/Interchanges (Relocated Illinois 83, Local Access, Midlothian/Harris Rd.)	500,000
Structures and Retaining Walls	-0-
Other	-0-
Subtotal	6,700,000
Right-of-Way	2,350,000
<b>TOTAL</b>	<b><u>\$9,050,000*</u></b>
Note: Costs do not include improvements associated with the FAP 342 interchange, or Phase I improvements with U.S. 45.	

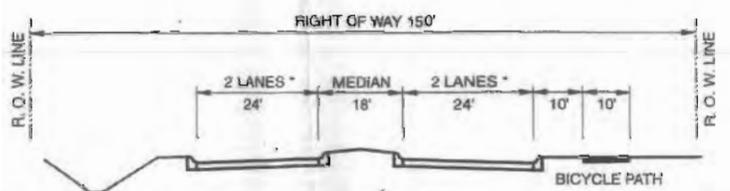




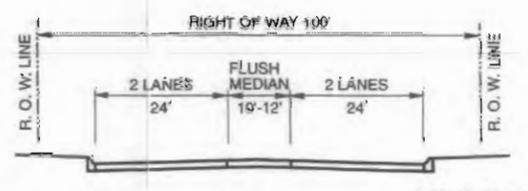
- LEGEND**
- EXISTING SIGNAL
  - POTENTIAL SIGNAL
  - SIGNAL TO BE REMOVED
  - PROPOSED LANE ARRANGEMENT
  - NUMBER OF LANES
  - FUTURE RIGHT OF WAY LINE
  - POTENTIAL LOCATION FOR BUS SHELTER, CONCRETE PAD AND BUS PULLOUT LANE
  - TRAILBLAZING SIGNING TO NEARBY METRA STATIONS



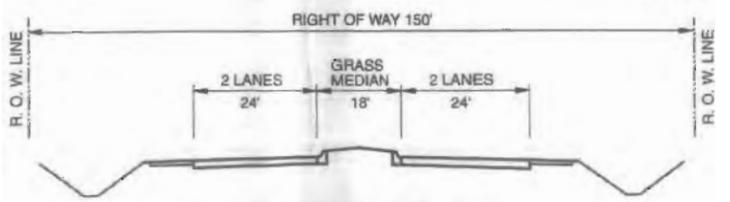
**ROADWAY SECTION A-A  
PETERSON RD AT IL 137 INTERCHANGE**



**ROADWAY SECTION B-B  
EAST OF BUTTERFIELD RD TO WEST OF BELL LN**



**ROADWAY SECTION D-D  
WEST OF IL 21**



**ROADWAY SECTION C-C  
WEST OF BELL LN TO WEST OF IL 21**

Notes: Signal Equipment Capable of Supporting Future Bus Preempt Operation - All Signals

# IL 137 / PETERSON RD PROPOSED PLAN

Prepared by CH2M HILL in association with METRO Transportation Group and EJM Engineering  
ILLINOIS DEPARTMENT OF TRANSPORTATION



**GENERAL NOTES**

CHANNELIZATION DETAILS TO REFLECT IDOT DESIGN STANDARDS AND CRITERIA AT TIME OF FINAL PLAN PREPARATION.

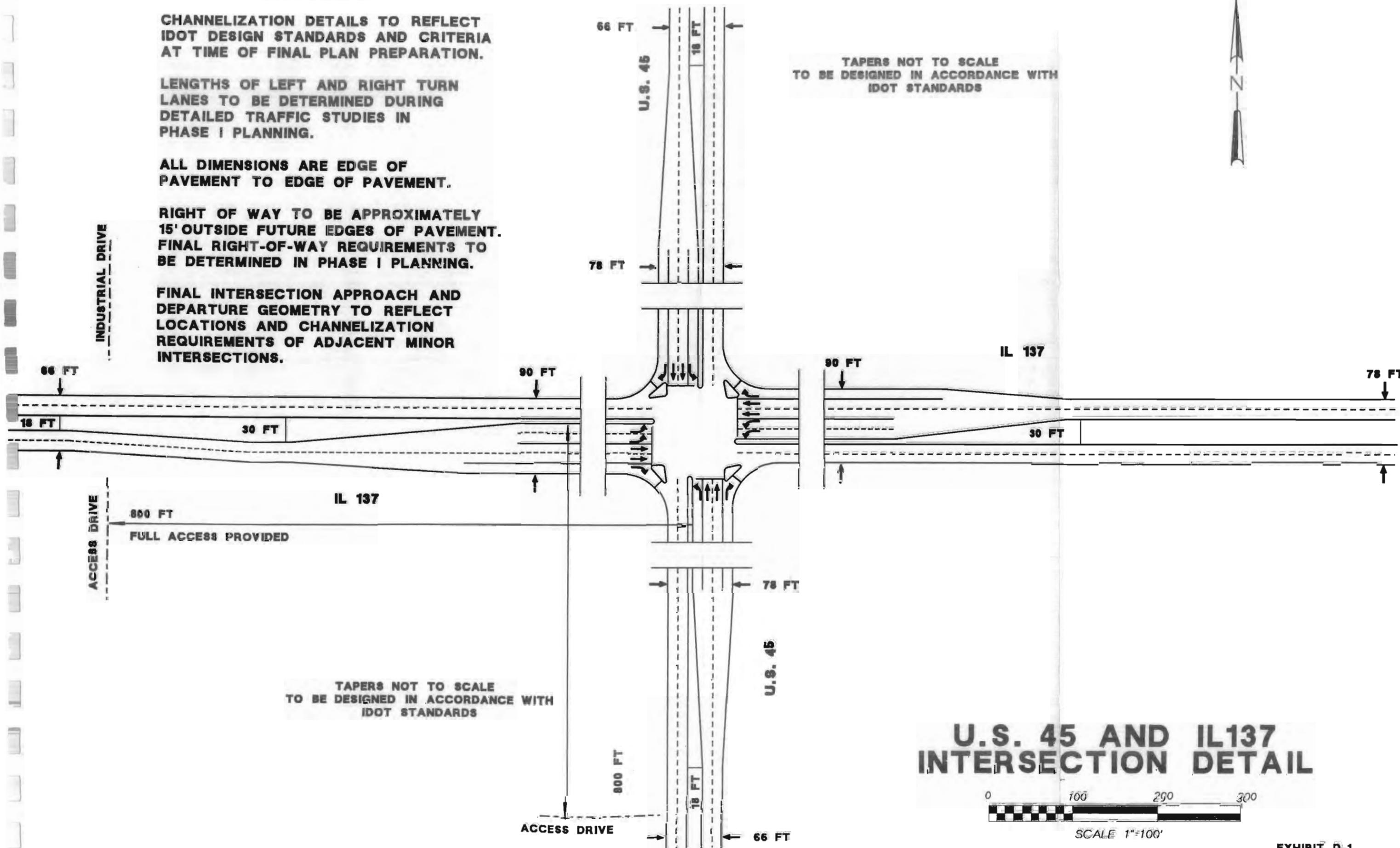
LENGTHS OF LEFT AND RIGHT TURN LANES TO BE DETERMINED DURING DETAILED TRAFFIC STUDIES IN PHASE I PLANNING.

ALL DIMENSIONS ARE EDGE OF PAVEMENT TO EDGE OF PAVEMENT.

RIGHT OF WAY TO BE APPROXIMATELY 15' OUTSIDE FUTURE EDGES OF PAVEMENT. FINAL RIGHT-OF-WAY REQUIREMENTS TO BE DETERMINED IN PHASE I PLANNING.

FINAL INTERSECTION APPROACH AND DEPARTURE GEOMETRY TO REFLECT LOCATIONS AND CHANNELIZATION REQUIREMENTS OF ADJACENT MINOR INTERSECTIONS.

TAPERS NOT TO SCALE TO BE DESIGNED IN ACCORDANCE WITH IDOT STANDARDS



TAPERS NOT TO SCALE TO BE DESIGNED IN ACCORDANCE WITH IDOT STANDARDS

**U.S. 45 AND IL137 INTERSECTION DETAIL**



## **Segment II— "Illinois 137—Central" (Illinois 137 Interchange to St. Marys Road)**

Segment II of the Peterson Road/Illinois 137 SRA corridor begins at and includes the interchange with Illinois 137 and terminates at St Marys Road, a distance of about 4 miles. Areas and communities served by this segment include Libertyville, Green Oaks, unincorporated Lake County and the Lake County Forest Preserve.

### **Cross Section and Geometric Characteristics**

This segment begins at the Peterson Road and Illinois 137 interchange. The recommended typical cross section of Peterson Road as it approaches Illinois 137 consists of a four-basic lane section (two lanes in each direction of travel) and a 10 feet median, with a concrete barrier. The recommended typical cross section along Illinois 137 north of Peterson Road consists of a four-basic lane section with a raised 18-foot median and closed drainage, curb-and-gutter section.

East of the interchange, where Peterson Road and Illinois 137 join, to approximately one-half mile west of Butterfield Road, a six-lane section (three lanes in each direction of travel) is recommended. This cross section would include a raised 18-foot median with closed drainage and curb and gutter. A 10-foot bicycle path would be included along the south side of the roadway. This cross section could be accommodated within the existing 150 feet of right-of-way. The six-lane section is recommended along this segment of Illinois 137 for the following reasons:

- A six-lane cross section provides lane balance at the exit and entrance ramps. This facilitates smooth exit and entering maneuvers and minimizes lane changing.
- It provides a compatible cross section with the Peterson Road section to the west and the Illinois 137 section to the north.
- It provides sufficient weaving length for eastbound Peterson Road and Illinois 137 traffic accessing Butterfield Road.

Note that the 10-foot bicycle path would continue along the south side of Illinois 137 to a point west of Bell Lane.

East of Butterfield Road, the recommended SRA plan retains the existing typical section. This would require transitioning the recommended six-lane section to the west to a four-lane cross section. The transition would take place east of the new local access point located 1,160 feet east of Butterfield Road. See Exhibit C-2. The existing four-lane section would consist of two-lanes in each direction of travel separated by an 18-foot grass median with open drainage within 150 feet of right-of-way.

Just west of Illinois Route 21, existing Illinois 137 would remain unchanged with four lanes, a 10-12 foot flush median, closed drainage, and curb and gutter within 100 feet of right-of-way. This cross section would continue for about 2 miles until reaching the approach to St. Marys Road. See Exhibit C-3.

The decision to maintain the existing typical section along this section of Illinois Route 137 was based on a lower traffic growth forecast, as well as adjacent land use constraints, including:

- One-quarter mile of privately owned property along the northside of this two-mile segment.
- One-half mile of property occupied by Ascension Cemetery.
- More than one 1 mile of Lake County Forest Preserve land.
- An ADID wetland area located within the forest preserve.

Therefore, right-of-way acquisition would be limited to locations where future right-turn lanes are recommended. At these locations, approximately 12 feet of additional right-of-way would be required. See Exhibit C-3.

Other geometric improvements include improving the geometrics at the intersection of Illinois 137 and Illinois 21, where approach widening is being planned as part of a 1995 Phase I study. Widening of Illinois 137 would provide for a 30-foot median to accommodate dual left-turn lanes, two through lanes, and an exclusive right-turn lane on each approach. The proposed plan for the Illinois 21 intersection is illustrated on the

intersection detail shown in Exhibit D-2. Note, that as of the publication of this report the Phase 1 study for this intersection has not been completed. It is the intent of the SRA plan to be compatible with recommendation that result from the Phase 1 study.

In addition to the geometric improvements recommended at the Illinois 21 intersection, relocation/realignment of Des Plaines Drive and River Road are recommended to remove the existing offset intersection. This would provide a more conventional four-leg intersection. See Exhibit C-3.

### **Floodplain, Wetland and Drainage Considerations**

There are five floodplains potentially affected by improvements to Illinois 137 in Segment II, two of which are associated with ADID wetlands and one of which is associated with downstream flooding. Potentially affected floodplains are:

- Approximately 1,000 feet west of Butterfield Road, a small tributary of the west branch of the Bull Creek Tributary crosses Illinois 137. This floodplain is administered by the SMC. A transverse encroachment is unavoidable and compensatory storage is likely to be required.
- Bull Creek crosses Illinois 137 west of Cass Drive. This waterway is subject to DOWR and SMC review. In addition, there are ADID wetlands associated with this corridor. See Exhibit B-2. Additional ADID wetlands border the north side of Illinois 137 for 600 feet between Bell Lane and Sunnyview Road. No additional right-of-way widening is required in these areas.
- The Des Plaines River crosses Illinois 137 about 1,600 feet east of Illinois Route 21 and is subject to DOWR and SMC regulation. The subdivision of Libertyville Estates is located south of Illinois 137 and is subject to flooding. The Army Corp of Engineers intends to construct a protective levee south of Illinois 137 and develop compensatory storage in the forest preserve north of Illinois 137. The recommendations to maintain the existing roadway should avoid any conflict with this area.

- Tributary No. 1 (Des Plaines River) crosses Illinois 137 about one-half mile east of River Road. This floodplain is subject to DOWR and SMC regulation. Even without widening the profile of Illinois 137, it may have to be raised because Flood Insurance Study data indicate possible overtopping of the roadway at this location.
- The Meadow Haven Creek floodplain is located north of Illinois 137 east of Oak Grove Avenue. This area is regulated by the SMC and also is an ADID wetland. No widening or additional right-of-way is included for this area.

In regards to drainage system design, it is suggested that, although the roadway drainage will be closed, the existing ditch system be retained between Butterfield Road and Bull Creek. Commercial development east of Bull Creek precludes consideration of ditches further east.

### **Traffic Control, Operations and Safety**

As discussed above, much of the open land in this segment is not conducive to development because of the proximity of the Lake County Forest Preserve, wetlands, and the Ascension Cemetery. However, some undeveloped land remains. It is essential that the SRA corridor plan for this segment establish a long-range framework that reinforces the operational and safety objectives of the SRA system. The key to establishing this framework is the proper location of future traffic signals and maintenance of median access control.

The diagrams along the top of each SRA plan exhibit indicate locations of existing and proposed signalized intersections, the lane arrangements at these locations, and spacing to adjacent signals. The plan itself indicates the locations of median access breaks. Where no break is shown, it is the intent of the plan that vehicles entering or exiting driveways or other existing and future access points be restricted to right-in and right-out movements only. Left turns are allowed along the entire length of the flush median area.

Traffic control recommendations for Segment II of this corridor include provisions for signalized intersections at the minimum spacing of one-quarter mile to support existing and future commercial activity.

The traffic control plan for Segment II calls for retention of existing signals at Butterfield Road, Illinois 21, and St. Mary's Road. Upgrading of the existing signalization, accompanied by increased capacity (in the form of additional turn lanes), would serve long-range needs.

Potential new signals are proposed at five locations. These new signalized intersections are proposed to serve potential future developing areas, as well as existing developed areas. Signals are located in a manner consistent with the SRA criteria for spacing of signalized intersections. A new signal is proposed approximately one-quarter mile east of Butterfield Road at the new local access point that is positioned to serve anticipated development. A signal also is proposed at Cass Drive, approximately one-half mile west of Illinois 21, to serve existing residential development south of Illinois 137 and commercial areas adjacent to the intersection. Other proposed signals are located east of Illinois 21 at the Illinois 137 intersections with Des Plaines Drive, River Road and Oak Grove Avenue. The Lake County Forest Preserve is planning to develop a primary entrance opposite the Des Plaines Drive intersection to serve facilities in this area. This plan is consistent with focusing vehicular activity at this potential signal location.

As with other potential new signal locations, signalization of intersections is not recommended until the appropriate warrants are realized.

To verify the reasonableness of the recommended improvements, a planning-level intersection capacity analysis was performed. Table 16 shows the results of that analysis for all future signalized intersections along Illinois 137. The analysis used CATS year 2010 SRA forecast traffic volumes as a general reference. As noted in the table, assumptions were made for unavailable traffic volumes. Other capacity analysis assumptions are detailed in Appendix A.

The analysis indicates that, as proposed, all signalized intersections will operate within an acceptable level within this segment. The traffic control and geometric plan proposed for this segment would serve projected future traffic volumes within acceptable levels of service and without unreasonable delay.

**Table 16**  
**Evaluation of Signalized Intersection Operations Along**  
**Segment II (Peterson Road to St. Mary's Road)**

Intersection of IL 137/Peterson Road	Lane Arrangements <sup>b</sup>		Year 2010 ADT (vpd) <sup>c</sup>		v/c for Intersection <sup>d</sup>
	SRA	Crossroad	SRA	Crossroad	
Butterfield Road <sup>a</sup>	LL-T-TR	LL-T-TR	33,300	15,200	0.63
Local Access <sup>a</sup>	L-TTT-R	L-TR	31,600	5,000	0.60
Cass Drive <sup>a</sup>	L-TT-R	L-TR	31,600	5,000	0.77
IL 21 <sup>a</sup>	LL-TT-R	LL-TT-R	31,600	29,800	0.90
Des Plaines Drive <sup>a</sup>	L-TT-R	L-TR	28,400	5,000	0.71
River Road <sup>a</sup>	L-TT-R	L-TR	28,400	7,500	0.81
Oak Grove Avenue <sup>a</sup>	TT-R	L-R	20,200	5,000	0.58
St. Mary's Road <sup>a</sup>	TT-R	LR-R	22,100	10,300	0.79

Note:    <sup>a</sup>Denotes SRA corridor.  
<sup>b</sup>Assumed for unavailable volumes: 20,000 vpd for major arterials, 12,000 vpd for minor arterials, and 5,000 vpd for local roadways.  
<sup>c</sup>L = Left-turn lane; T = through lane; R = right-turn lane; and TR = through and right-turn lane.  
<sup>d</sup>ADT = Average Daily Traffic.  
<sup>e</sup>v/c = Volume to Capacity Ratio.

## Public Transportation

No direct public transportation services are provided on Illinois 137 in Segment II at this time. However, it is likely this route carries traffic to and from nearby Metra train stations on the Milwaukee District North Line and would soon provide access to the Wisconsin Central Station. Therefore, signs noting the locations of stations should be placed along this corridor. Specifically, signs to the Milwaukee District North Line Grayslake station and to the future Wisconsin Central Libertyville station should be located before the eastbound split between Illinois 137 and Peterson Road. Signs are needed at Illinois 21 for the North Line Libertyville station. Implementation of either the Wadsworth extension of the North Line or service on the EJ&E tracks should be supported with directional signing at St. Marys Road.

Transit-related improvement recommendations also include incorporating elements during the design of the roadway to facilitate transit service on Illinois 137. These elements include:

- Reserving sufficient right-of-way for bus stop shelters at all crossroads in this segment and for bus turnouts at locations with a high potential for conflict.
- Installing roadside traffic signal control equipment along the corridor capable of responding to transit vehicle signal preemption requests.

It is noted that it would be desirable to develop a park-and-ride facility in the vicinity of the Illinois 21 intersection if right-of-way were to become available.

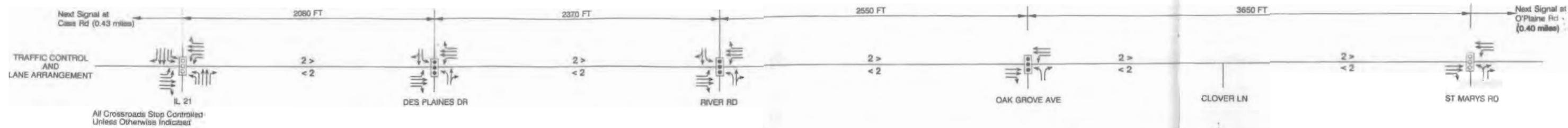
### **Construction and Right-of-Way Costs**

The consultant's opinion of the total cost of the recommended plan for Segment II is \$13.8 million in 1991 dollars. See Table 17. This estimate of total costs includes costs of construction, acquisition of right-of-way, and major structures. Specific structures include the Metra Milwaukee North Line rail overpass, overpass structures carrying Illinois 137 over the westbound Peterson Road ramps, and bridges and culverts at Bull Creek. Construction cost of a bicycle trail between the western end of this section and the Commonwealth Edison right-of-way is not included, however, the additional right-of-way required for the bicycle path has been included in the right-of-way cost.

**Table 17**  
**Opinions of Construction and Right-of-Way Cost for**  
**Segment II of IL 137 and Peterson Road**  
**(1991 Dollars)**

Roadway Reconstruction/Resurfacing	\$6,900,000
Intersections/Interchanges	500,000
Structures and Retaining Walls	3,250,000
Other	-0-
Subtotal	10,650,000
Right-of-Way	3,130,000
<b>TOTAL</b>	<b><u>\$13,780,000</u></b>

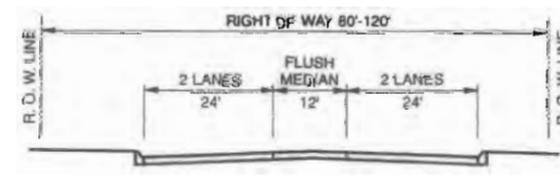
Note: Phase I intersection improvements not included at Illinois 21.



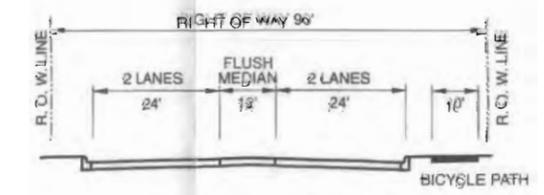
Install Signal Equipment Capable of Supporting Future Bus Priority Operation: A: Signals

**LEGEND**

- EXISTING SIGNAL
- POTENTIAL SIGNAL
- SIGNAL TO BE REMOVED
- PROPOSED LANE ARRANGEMENT
- NUMBER OF LANES
- FUTURE RIGHT OF WAY LINE
- POTENTIAL LOCATION FOR BUS SHELTER, CONCRETE PAD AND BUS PULLOUT LANE
- TRAILBLAZING SIGNING TO NEARBY METRA STATIONS



ROADWAY SECTION A-A  
ILL 21 TO ST. MARYS RD

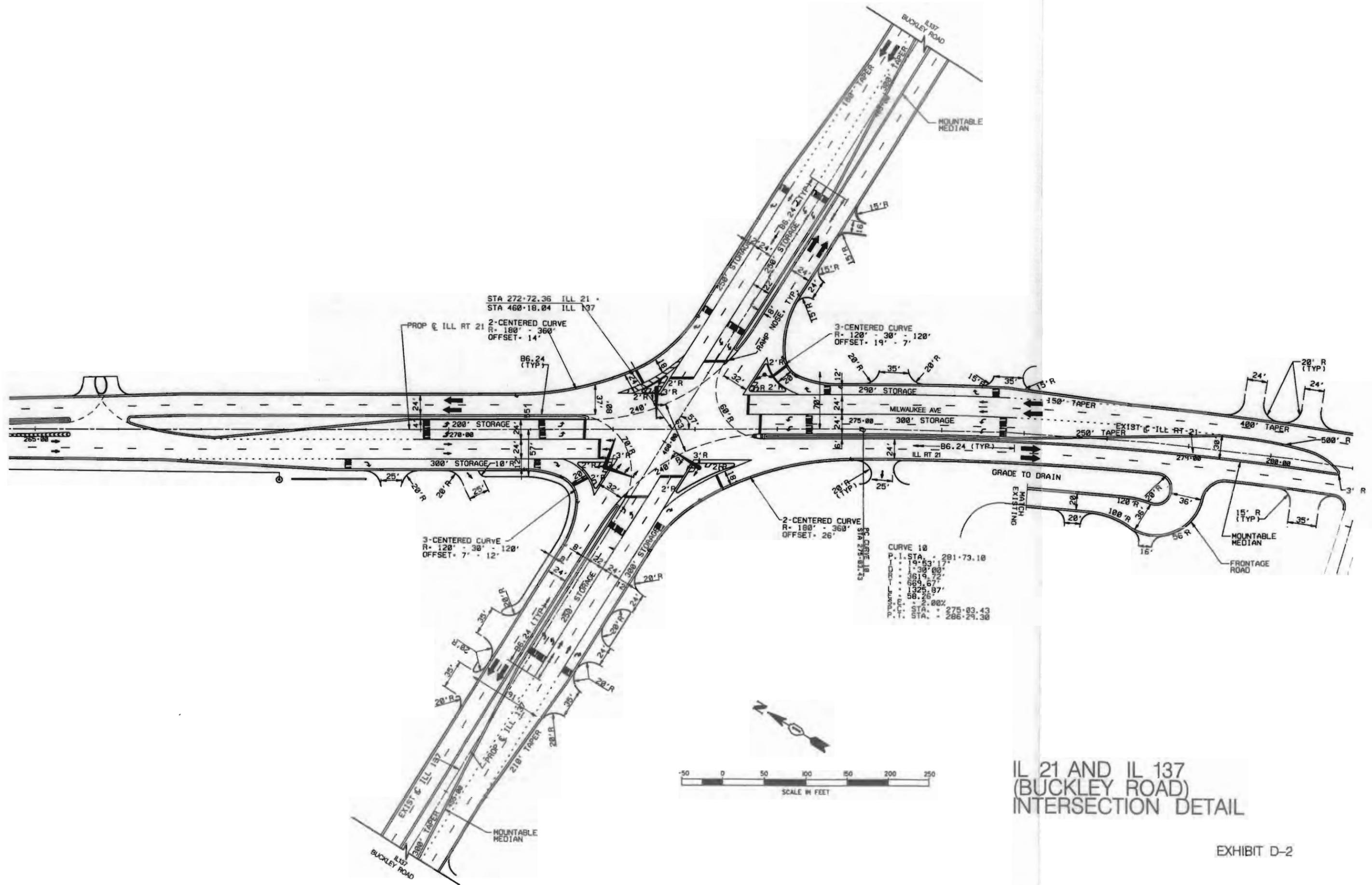


ROADWAY SECTION B-B  
ST. MARYS RD TO O'PPAINE RD

**IL 137 / PETERSON RD PROPOSED PLAN**

Prepared by CH2M HILL in association with  
METRO Transportation Group and EJM Engineering  
ILLINOIS DEPARTMENT OF TRANSPORTATION





CURVE 18

P.I. STA.	281+73.10
P.C. STA.	14+53.17
P.T. STA.	33+93.03
TOTAL L.	69+39.86
CHORD L.	1325.87'
CHORD BEARING	S88.26°W
GRADE	2.88%
START STA.	275+83.43
END STA.	286+29.38

IL 21 AND IL 137  
(BUCKLEY ROAD)  
INTERSECTION DETAIL

### **Segment III— "Illinois 137—East" (St. Marys Road to the Amstutz Highway)**

Segment III of the Illinois 137/Peterson Road SRA is approximately 4 miles long, extending from St. Marys Road to its terminus on the east end with the Amstutz Highway. Segment III serves the villages of Green Oaks and North Chicago, and the Great Lakes Naval Training Station.

#### **Cross Section and Geometric Characteristics**

Approaching St. Marys Road, the proposed roadway includes four lanes and a 12-foot flush median, a closed-drainage system, and a 10-foot bicycle path, within 90 feet of right-of-way. East of St. Mary's Road, the median would begin to transition from the existing flush median to the west to a raised, barrier-type median. This raised median would vary in dimension as it transitions to the cross section proposed as part of the I-94 interchange improvements farther to the east. Two lanes in each direction of travel would be provided, with closed drainage and curb and gutter. The 10-foot bicycle path would continue from O'Plaine Road to approximately 900 feet east where access is planned to a new subdivision. This has been included as part of the village of Green Oaks trail plan, which calls for the above connection. All widening is shown to the south to avoid effects to Ascension Cemetery located on the north side of Illinois 137 in this area. See Exhibit C-4.

East of O'Plaine Road, the Illinois State Toll Highway Authority (ISTHA) is currently implementing new ramps to and from the north at the interchange with Illinois 137. As part of this improvement, Illinois 137 is being widened to three lanes through the interchange area. This improvement includes widening of roadway structures and reconstruction of the CMSPP RR structure directly east of the interchange. The proposed SRA cross section depicted on Exhibit C-4 is intended to reflect the current tollway plans. This would include, in addition to the three lanes in each direction of travel, a raised 42-foot median across I-94, closed drainage, and curb and gutter within 170 to 360 feet of right-of-way.

East of the I-94 interchange improvement area to west of U.S. 41 (a distance of 1.2 miles), the proposed typical cross section consists of three lanes in each direction of travel, a raised 30-foot median, with a closed drainage curb-and-gutter system. Right-of-

way required to implement the cross section is 140 feet. The existing south edge of pavement is to be maintained, with all widening occurring on the north side. Therefore, 30 feet of additional right-of-way is required west of U.S. 41. This cross section is designed to be consistent with the ongoing Phase I study in this area.

East of U.S. 41, the six-lane cross section would be maintained. The median dimension, however, would be reduced to 18 feet through the intersection with Great Lakes Drive. The reduced median is recommended to minimize right-of-way needs at the Navel Golf Course. This is especially important as the Skokie River Floodplain encroaches on the golf course. The proposed cross section is intended to fit within the existing right-of-way with easements required for grading.

East of Great Lakes Drive, Illinois 137 has already been improved to a six-lane roadway with a mountable median within 130 feet of right-of-way.

In addition to modifying the existing cross section, other geometric improvements include new access points to serve future development. Approximately 900 feet east of O'Plaine Road, a full intersection would be developed to serve existing residential development to the south and provide access to a new subdivision to the north. Another existing access point, located 1,760 feet east of Illinois 43, would also be extended to the north to serve future commercial development.

### **Floodplain, Wetland and Drainage Considerations**

There are three floodplains potentially affected by improvements to Illinois 137 in Segment III, one associated with ADID wetlands and one associated with downstream flooding. Potentially affected floodplains are:

- The north branch of the Chicago River (Middle Fork) is located east of I-94. This river is regulated DOWR and SMC. ADID wetlands associated with this river extend east from the CMSPP RR tracks 2,000 feet on the north side of Illinois 137 and 1,400 feet on the south side up to the main entrance of Abbott Labs. See Exhibit B-4.
- An unnamed floodplain area in the northwest quadrant of the U.S. 41 interchange is regulated by the SMC.

- The Skokie River crosses Illinois 137 about 1,100 feet east of U.S. Route 41. The Skokie River is regulated by the DOWR and the SMC.

Historic flooding has been recorded in this segment. The Illinois 137 underpass at Sheridan Road has flooded on two occasions. U.S. Route 41 south of Illinois 137 has been flooded on two occasions. Generally, this section of Route 137 lies within the upper reaches of the watershed tributary to the flooding problems south of the roadway. Adding lanes between Illinois 43 and U.S. 41 could aggravate the condition and require extensive mitigation measures.

The following concern should be noted. The existing Illinois 137 structure over the Skokie River actually restricts the downstream flow of the river. If major structural work is required along Illinois 137 over the Skokie River, current floodway law may require "opening up" the structure to reduce the current downstream flow restrictions of the river. This could potentially increase flood damage to downstream properties. To mitigate these potential damages, compensatory storage should be provided.

### **Traffic Control, Operations and Safety**

The existing characteristics of this segment - multiple lanes, median, limited access points, exclusive turn lanes at intersections - are all desirable features of SRA planning. It is essential that the proposed SRA plan maintains these characteristics and establishes a long-range framework that reinforces the operational and safety objectives of the SRA system. Key elements of this framework include the location of future traffic signals and maintaining median-access controls.

The diagrams along the top of each SRA plan exhibit indicate locations of existing and proposed signalized intersections, the lane arrangements at these locations, and spacing to adjacent signals. The plan itself indicates the locations of median access breaks. Where no break is shown, it is the intent of the plan that vehicles entering or exiting driveways or other exiting and future access points be restricted to right-in/right-out movements only.

The traffic control plan for Segment III is depicted in Exhibits C-4 and C-5. The proposed plan calls for only one new potential signalized intersection. This intersections

would be located approximately 1,760 feet east of Illinois 43. This new signal is positioned to facilitate existing access to the south and to provide future access to the north.

In addition to the new signalized intersection, the traffic control plan retains all existing signals within this segment. It should be noted that the spacing of signalized intersections east of U.S. 41, eight signals within 1.6 miles, does not meet desirable standards for signal spacing (one-quarter mile minimum spacing). Given local circulation and access needs, it is not possible to eliminate signals to increase spacing. To minimize the effects of multiple signals, it is imperative that all signals east of U.S. 41 be coordinated and operated as a single system programmed to minimize delay to through traffic along Illinois 137.

To enhance traffic operations at signalized intersections, capacity improvements are recommended at a number of locations. The following points summarize proposed capacity improvements:

- At O'Plaine Road the recommended plan includes intersection geometry and signal phasing improvements to facilitate bicycle path crossing.
- Dual left-turn lanes westbound, exclusive right-turn lane eastbound into Abbott Drive (consistent with ongoing Phase I study).
- Dual left-turn lanes and exclusive right-turn lanes on all four approaches at the Illinois 43 intersection (see Exhibit D-3).
- Dual left-turn lanes along Illinois 137 at the access drive located east of Illinois 43.
- At the SRA to SRA intersection of Illinois 137 and U.S. 41, the full suburban SRA intersection is recommended. This includes dual left-turn lanes and single right-turn lanes on all approaches. See Exhibit D-4.
- Recognizing the long-range travel demands along both U.S. 41 and Illinois 137, needs for capacity improvements beyond what is proposed in the intersection detail shown in Exhibit D-4 may be required. A possible post-2010 recommendation would include a grade-separated interchange at

Illinois 137 and U.S. 41. This interchange would likely be configured as a diamond-type interchange with the ramp terminal intersections located along Illinois 137.

- An eastbound right-turn lane is recommended at Lewis Avenue and at Ray Street.
- At Illinois Street, a single left-turn lane is recommended along westbound Illinois 137. Existing horizontal clearance along the structure over the EJ&E Railway tracks is not sufficient to accommodate a dual left-turn lane in the eastbound direction of travel.

To verify the reasonableness of the recommended improvements, a planning-level capacity analysis was performed. Table 18 shows the results of that analysis for all future signalized intersections along this segment of Illinois 137. The analysis used CATS year 2010 SRA forecast traffic volumes as a general reference. As noted in the table, assumptions were made for crossroad volumes. Other capacity analysis assumptions are detailed in Appendix A.

The capacity analysis indicates that the recommended plan should produce acceptable volume/capacity (v/c) ratios for all Segment III signalized intersections, with two exceptions. At the Illinois 137 intersection of O'Plaine Road and the Amstutz Highway, v/c ratios exceeding 1.0 were computed. In general, the analysis of signalized intersections should translate into reasonable levels of service along the arterial and at most signalized intersections during peak periods.

**Table 18**  
**Evaluation of Signalized Intersection Operations Along**  
**Segment III (St. Mary's Road to the Amstutz Highway) of IL 137/Peterson Road**

Intersection of IL 137/Peterson Road	Lane Arrangements <sup>b</sup>		Year 2010 ADT (vpd) <sup>c</sup>		v/c for Intersection <sup>d</sup>
	SRA	Crossroad	SRA	Crossroad	
O'Plaine Road*	L-TT-R	L-T-R	34,800	20,000	1.13
I-94 EB Ramps*	LL-TTT TTT-R	LL-RR	34,800	12,000	0.58
I-94 WB Ramps*	TTT-R	LL-RR	42,100	12,000	0.68
Abbott Drive*	LL-TTT TTT-R	LL-R	42,100	5,000	0.77
IL 43	LL-TTT-R	LL-TTT-R	36,200	34,400	0.75
Access Drive*	LL-TT-TR L-TTT-R	L-TR	36,200	5,000	0.76
U.S. 41*	LL-TTT-R	LL-TTT-R	36,200	44,700	0.86
Mississippi Street*	L-TTT TT-TR	LR	34,600	5,000	0.83
Great Lakes Drive*	L-TT-TR	LTR	34,600	5,000	0.75
Meridian Street*	LL-TTT-R	LT-TR	34,600	5,000	0.73
IL 131	LL-TTT-R	L-TT-R	35,200	25,400	0.82
Lewis Avenue	LL-TTT-R	L-TR	35,200	9,700	0.79
Ray Street*	L-T-TR L-TT-R	L-TR	26,800	5,000	0.74
Illinois Street*	L-TT-R	L-TR	26,800	5,000	0.69
Amstutz Highway	L-LT-TR	L-R	26,800	14,800	1.11

Note: \*Denotes SRA corridor.

<sup>c</sup>Assumed for unavailable volumes: 20,000 vpd for major arterials, 12,000 vpd for minor arterials, and 5,000 vpd for local roadways.

## **Public Transportation**

Pace Routes 563,567, and 569 operate over the easternmost 1 mile of Illinois 137, providing service to the Great Lakes Naval Training Center and the Veterans Administration Hospital. The Metra Chicago and North Western District North Line operates at the eastern terminus of the corridor and commuter rail service has been proposed on the EJ&E tracks crossing Illinois 137 about one-quarter mile west. As in other segments, the SRA plan includes implementation of elements to support transit use and operations. Elements include:

- Provision of sufficient right-of-way width to place bus shelters and bus pullouts where feasible.
- Directional signing indicating the location of nearby Metra commuter rail stations. In this segment, this includes signing to the Great Lakes station of the Chicago and Northwestern North Line. Proposed service on the EJ&E tracks should be supported with signs to the Green Bay Road station at Illinois 131, the U.S. 41 Station at U.S. 41, and the Waukegan Road Station at Illinois 43. Proposed service on the Wadsworth Extension of the Milwaukee District North District North Line should be supported with signing to the Roundout and Abbott Park stations at Illinois 43.
- Installation of roadside signal control equipment along the corridor capable of responding to transit vehicle signal preemption request.

In addition, it would be desirable to locate park-and-ride facilities at the junctions of major routes. Such facilities are encouraged at two locations in Segment III: I-94 and U.S. Route 41.

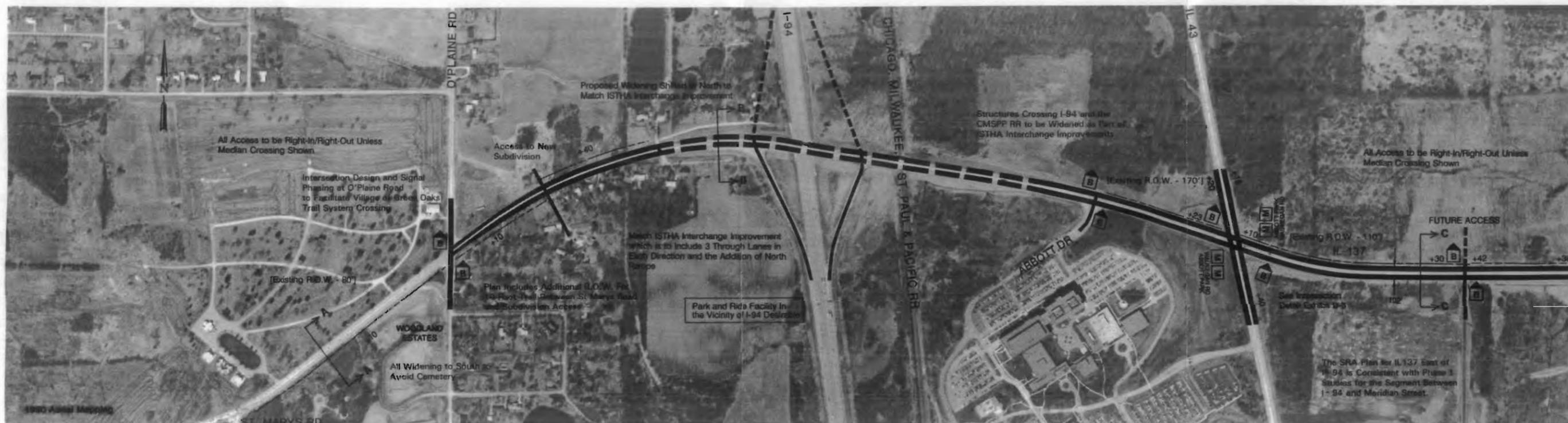
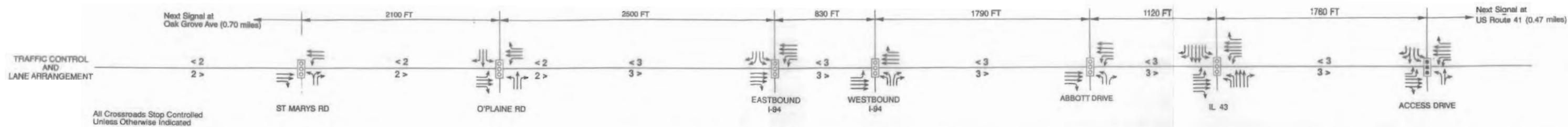
## **Construction and Right-of-Way Costs**

The consultant's opinion of the total cost of the recommended plan for Segment II is \$3.8 to 10.3 million in 1991 dollars. See Table 19. This estimate includes costs of construction, acquisition of right-of-way, and widening the structure for Skokie River. Roadside transit improvements and costs for signal coordination also are included.

**Table 19**  
**Opinions of Construction and Right-of-Way Cost for**  
**Segment III of IL 137 and Peterson Road**  
**(1991 Dollars)**

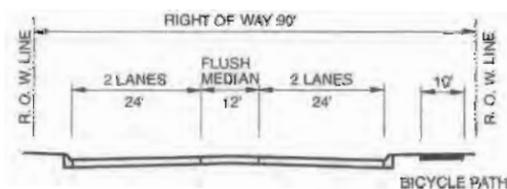
Roadway Reconstruction/Resurfacing	\$2,440,000
Intersections/Interchanges (New local access, U.S. 41)	1,100,000 to 7,600,000
Structures and Retaining Walls	-0-
Other	-0-
Subtotal	3,540,000 to 10,040,000
Right-of-Way	240,000
<b>TOTAL</b>	<b><u>\$3,780,000 to</u></b> <b><u>\$10,280,000</u></b>

Note: Opinions of construction and right-of-way cost do not include ISTHA improvements currently underway or Phase I plans along Illinois 137 from Illinois 43 to the east of U.S. 41.

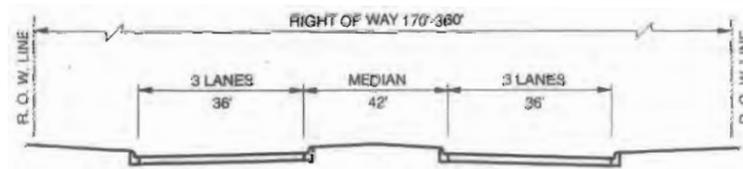


**LEGEND**

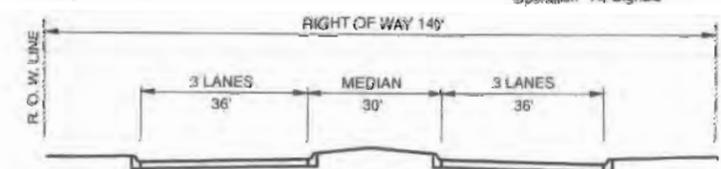
- EXISTING SIGNAL
- POTENTIAL SIGNAL
- SIGNAL TO BE REMOVED
- PROPOSED LANE ARRANGEMENT
- NUMBER OF LANES
- FUTURE RIGHT OF WAY LINE
- POTENTIAL LOCATION FOR BUS SHELTER, CONCRETE PAD AND BUS PULLOUT LANE
- TRAILBLAZING SIGNING TO NEARBY METRA STATIONS



**ROADWAY SECTION A-A**  
ST. MARYS RD TO O'PLAINE RD



**ROADWAY SECTION B-B**  
ISTHA INTERCHANGE IMPROVEMENT AREA



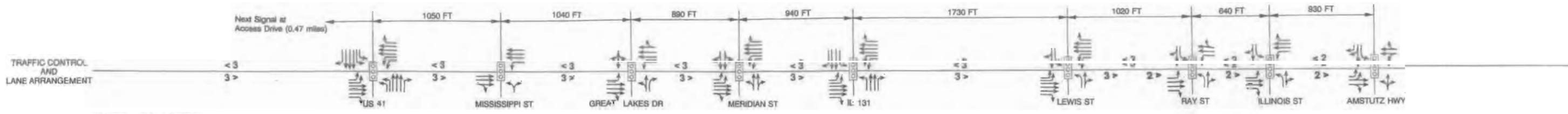
**ROADWAY SECTION C-C**  
EAST OF I-94 TO EAST OF IL 43

**IL 137/PETERSON RD PROPOSED PLAN**

Prepared by CH2M HILL in association with  
METRO Transportation Group and EJM Engineering  
ILLINOIS DEPARTMENT OF TRANSPORTATION



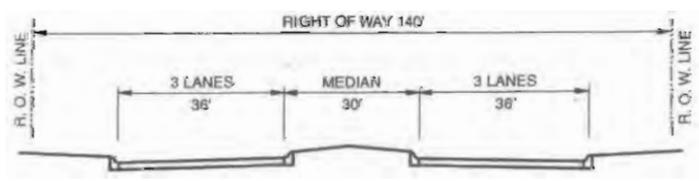
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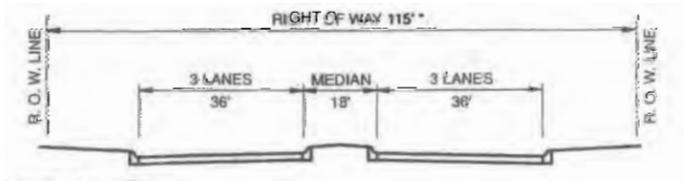
All Crossroads Stop Controlled Unless Otherwise Indicated



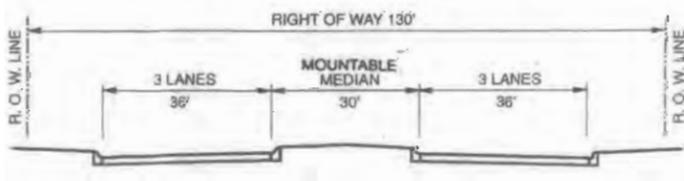
- LEGEND**
- EXISTING SIGNAL
  - POTENTIAL SIGNAL
  - SIGNAL TO BE REMOVED
  - PROPOSED LANE ARRANGEMENT
  - NUMBER OF LANES
  - FUTURE RIGHT OF WAY LINE
  - POTENTIAL LOCATION FOR BUS SHELTER, CONCRETE PAD AND BUS PULLOUT LANE
  - TRAILBLAZING SIGNING TO NEARBY METRA STATIONS



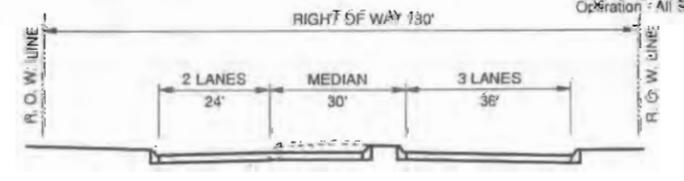
ROADWAY SECTION A-A  
IL 43 TO 1/4 MILE EAST OF U.S. 41



ROADWAY SECTION B-B  
EAST OF U.S. 41 TO EAST OF GREAT LAKES DR



ROADWAY SECTION C-C  
EAST OF GREAT LAKES TO RAY ST



ROADWAY SECTION D-D  
RAY ST TO AMSTUTZ HWY

Install Signal Equipment Capable of Supporting Future Bus Prompt Operation - All Signals

# IL 137 / PETERSON RD PROPOSED PLAN

Prepared by CH2M HILL in association with METRO Transportation Group and EJM Engineering

ILLINOIS DEPARTMENT OF TRANSPORTATION



**GENERAL NOTES**

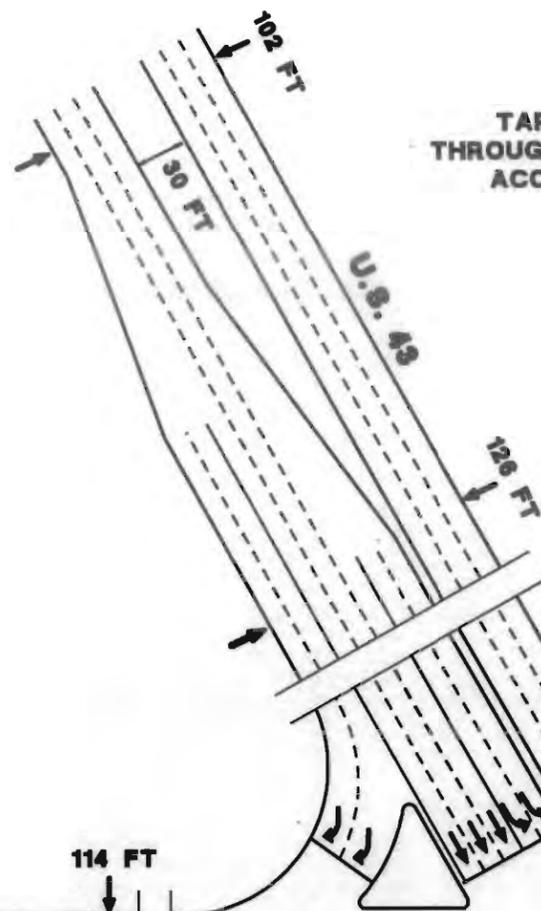
CHANNELIZATION DETAILS TO REFLECT IDOT DESIGN STANDARDS AND CRITERIA AT TIME OF FINAL PLAN PREPARATION.

LENGTHS OF LEFT AND RIGHT TURN LANES TO BE DETERMINED DURING DETAILED TRAFFIC STUDIES IN PHASE I PLANNING.

ALL DIMENSIONS ARE EDGE OF PAVEMENT TO EDGE OF PAVEMENT.

RIGHT OF WAY TO BE APPROXIMATELY 15' OUTSIDE FUTURE EDGES OF PAVEMENT. FINAL RIGHT-OF-WAY REQUIREMENTS TO BE DETERMINED IN PHASE I PLANNING.

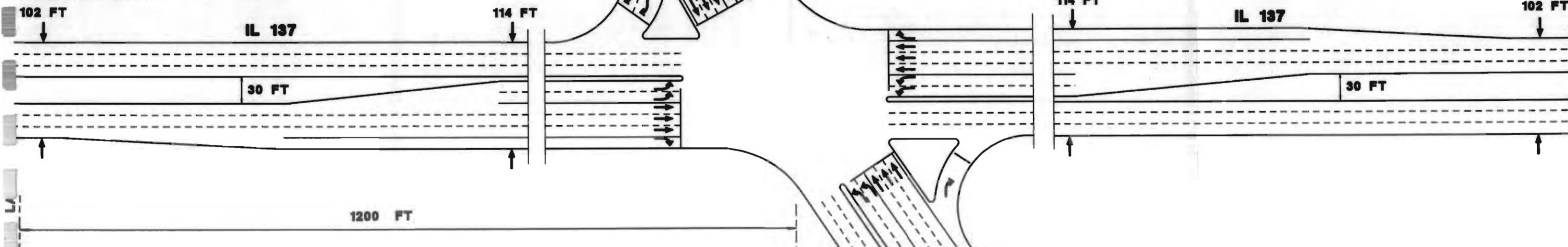
FINAL INTERSECTION APPROACH AND DEPARTURE GEOMETRY TO REFLECT LOCATIONS AND CHANNELIZATION REQUIREMENTS OF ADJACENT MINOR INTERSECTIONS.



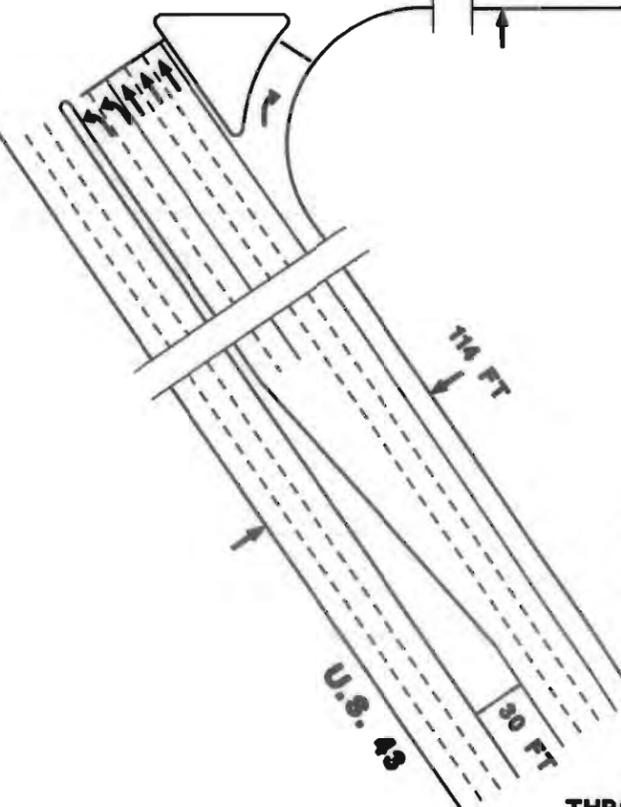
TAPER TO 18' MEDIAN AND 6 BASIC THROUGH LANES (THREE IN EACH DIRECTION) ACCORDANCE WITH IDOT STANDARDS



TAPERS NOT TO SCALE TO BE DESIGNED IN ACCORDANCE WITH IDOT STANDARDS

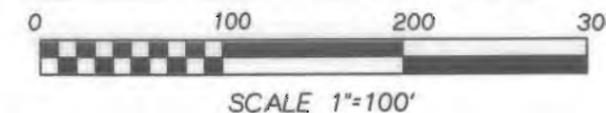


TAPERS NOT TO SCALE TO BE DESIGNED IN ACCORDANCE WITH IDOT STANDARDS



TAPER TO 18' MEDIAN AND 6 BASIC THROUGH LANES (THREE IN EACH DIRECTION) ACCORDANCE WITH IDOT STANDARDS

**IL 137 AND U.S. 43 INTERSECTION DETAIL**



**GENERAL NOTES**

CHANNELIZATION DETAILS TO REFLECT IDOT DESIGN STANDARDS AND CRITERIA AT TIME OF FINAL PLAN PREPARATION.

LENGTHS OF LEFT AND RIGHT TURN LANES TO BE DETERMINED DURING DETAILED TRAFFIC STUDIES IN PHASE I PLANNING.

ALL DIMENSIONS ARE EDGE OF PAVEMENT TO EDGE OF PAVEMENT.

RIGHT OF WAY TO BE APPROXIMATELY 15' OUTSIDE FUTURE EDGES OF PAVEMENT. FINAL RIGHT-OF-WAY REQUIREMENTS TO BE DETERMINED IN PHASE I PLANNING.

FINAL INTERSECTION APPROACH AND DEPARTURE GEOMETRY TO REFLECT LOCATIONS AND CHANNELIZATION REQUIREMENTS OF ADJACENT MINOR INTERSECTIONS.

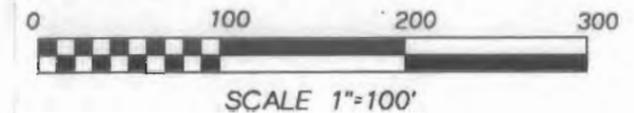
TAPER TO 18' MEDIAN AND 6 BASIC THROUGH LANES (THREE IN EACH DIRECTION) ACCORDANCE WITH IDOT STANDARDS



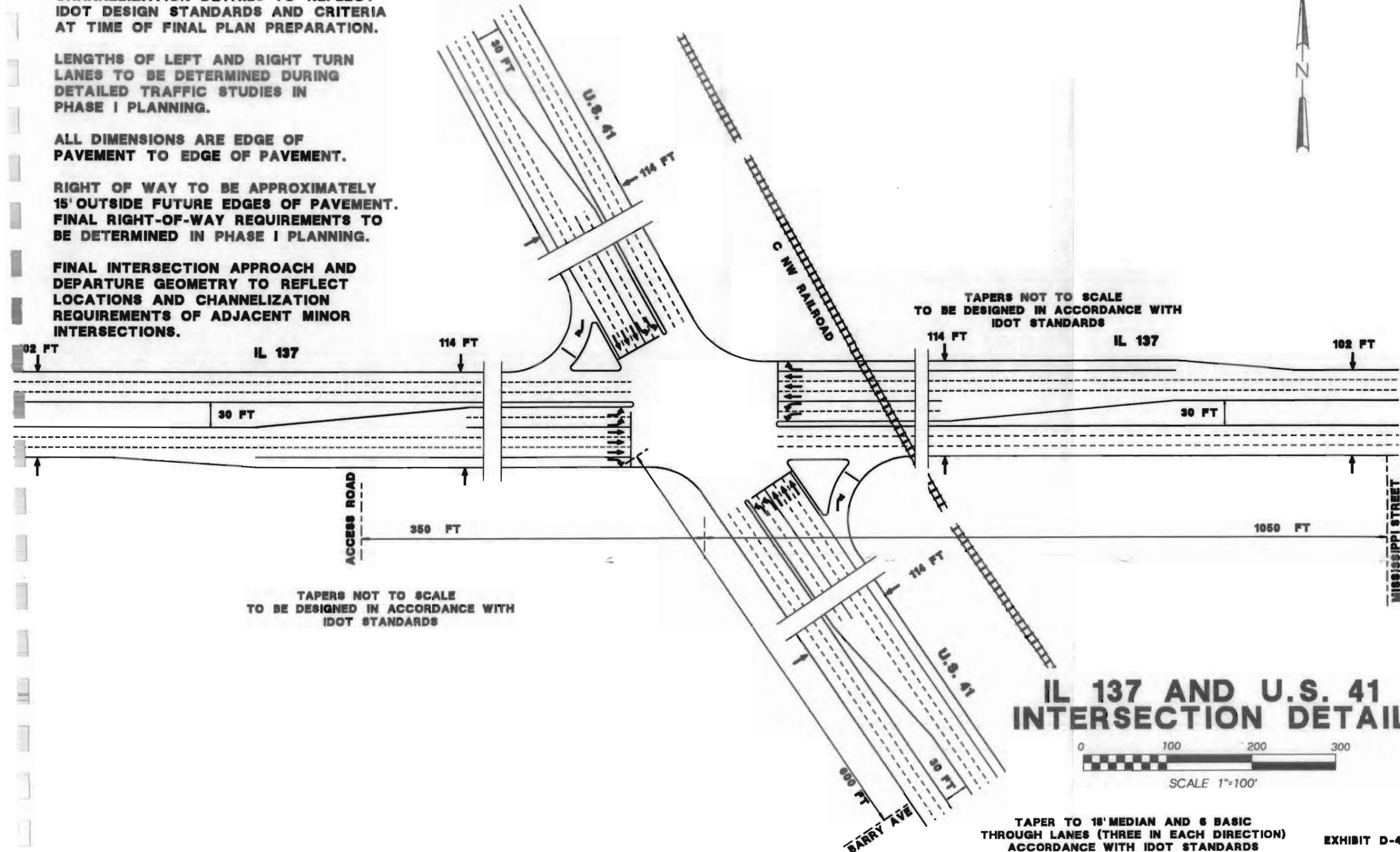
TAPERS NOT TO SCALE TO BE DESIGNED IN ACCORDANCE WITH IDOT STANDARDS

TAPERS NOT TO SCALE TO BE DESIGNED IN ACCORDANCE WITH IDOT STANDARDS

**IL 137 AND U.S. 41 INTERSECTION DETAIL**



TAPER TO 18' MEDIAN AND 6 BASIC THROUGH LANES (THREE IN EACH DIRECTION) ACCORDANCE WITH IDOT STANDARDS



## **Illinois 137/Peterson Road Corridor Summary**

This study addresses long-range transportation needs along the Illinois 137/Peterson Road SRA. The following paragraphs summarize the expected operations and capacity of the Illinois 137/Peterson Road arterial under future conditions. The summary also includes an opinion of the costs to implement the plan as recommended. In addition, because of the significant investment required for implementing the recommended plan, the prioritization scheme discussed below was developed.

### **Operational Analysis of the Illinois 137/Peterson Road Corridor**

An evaluation of traffic operations during high demand (peak) periods was performed for the entire corridor. Techniques, procedures and assumptions consistent with the 1994 Highway Capacity Manual (HCM), published as Transportation Research Board Special Report 209, were used. The corridor was evaluated as a suburban, multi-lane highway for its entire length.

The year 2010 CATS SRA traffic forecast was used to develop theoretical peak period traffic volumes for analysis purposes. Assumptions were made for the general volumes of crossroad traffic and for patterns of turning movements.

Other assumptions for signalization (green time/cycle lengths, effects of progression) were made consistent with the intersection analyses. These assumptions are documented in Appendix A. All data requirements or assumptions are compatible with the SRA concept and guidelines in the HCM.

Operation quality on Illinois 137/Peterson Road is a function of the character of the arterial (which affects the safe operating speed under free flow conditions), the number and spacing of signalized intersections, and the delay and level of service at those intersections.

Appendix A shows a planning-level operational analysis of each signalized intersection along Peterson Road and Illinois 137. Table A-2 in Appendix A summarizes the operational assumptions that were used to generate the arterial analysis for each intersection and arterial segment.

Table 20 summarizes the arterial analysis of the entire Illinois 137/Peterson Road SRA corridor. The year 2010 CATS forecast traffic can be accommodated at level of service D or better for the length of the SRA. In general, the average forecasted travel speeds are in the mid-20 mph to low-30 mph range.

Reasonable speeds and levels of service are achievable along the length of the Illinois 137/Peterson Road SRA. The year 2010 CATS forecast traffic can be accommodated at level of service D or better. In general, the average forecasted traffic speeds range from mid-20 mph to low-30 mph.

The one segment that produced a level of service D was located on the east end of the corridor between U.S. 41 and the Amstutz Highway. Speeds were predicted at 21 mph.

### **Implementation Costs**

A total investment in 1991 dollars of \$26.6 to \$33.1 million will be necessary to implement the recommended plan for Illinois 137/Peterson Road. Note that these estimates do not include ongoing construction at the I-94 interchange, nor do they include costs for implementing ongoing Phase I projects. This opinion of cost, detailed in Table 21, includes approximately \$20.9 to \$27.4 million in roadway, intersection/interchange, drainage detention, and structural improvements, and \$5.7 million in right-of-way acquisition. Because of the significant investment required for implementation, a general prioritization scheme was developed. The total cost was divided into short-term, basic and post-2010 recommendations sections.

### **Project Prioritization**

The \$26.6 to \$33.1 million implementation cost for the Illinois 137/Peterson Road SRA is substantial. The SRA plan will likely require construction over a number of years. Table 22 presents a suggested program of priority improvements, categorized by short-term, basic and post-2010 recommendations.

**Table 20**  
**Summary of Illinois 137/Peterson Road Arterial Analysis**

Segment	Segment Length (miles)	Number of Signalized Intersections	Free Flow Operating Speed (mph)	100% of CATS "2010" Forecast	
				Average Peak Period Speed (mph)	LOS*
Illinois 83 to east of U.S. 45	1.59	6	45	23	C
East of U.S. 45 to River Road	2.92	6	45	30	B
River Road to O'Plaine Road	1.57	3	45	32	B
O'Plaine	0.63	2	45	30	B
Road to I-94 WB Ramp	1.35	4	45	24	C
I-94 WB Ramp to U.S. 41	1.56	8	45	21	D
U.S. 41 to Amstutz Highway					
<b>Overall Average Arterial Speed (mph)</b>				27	—

\*LOS = Level of service

**Table 21**  
**Opinions of Construction and Right-of-Way**  
**Costs for SRA Improvements**  
**Along Illinois 137/Peterson Road (1991 Dollars)**

<b>Summary of Total Cost—All Segments</b>				
	<b>Short Term<sup>a</sup></b>	<b>Basic 2010 Plan<sup>a</sup></b>	<b>Recommended Post 20-21<sup>a,b</sup></b>	<b>Total<sup>c</sup></b>
Roadway Reconstruction	780,000	14,760,000	—	15,540,000
Intersection/Interchanges	—	2,100,000	7,500,000	2,100,000 to 8,600,000
Structures and Retaining Walls	—	3,250,000	—	3,250,000
Other	—	—	—	—
Subtotal	780,000	20,110,000	7,500,000	
Right-of-Way	—	5,720,000	—	
<b>Total</b>	<b>780,000</b>	<b>25,830,000</b>	<b>7,500,000</b>	<b>26,610,000</b> to <b>33,110,000</b>

<sup>a</sup>See items listed on Table 22  
<sup>b</sup>The recommended post-2010 item is the potential interchange at U.S. 41  
<sup>c</sup>The total column is the sum of the Short Term, Basic 2010 Plan, and Recommended Post-2010 columns

**Table 22  
Illinois 137 SRA Implementation Plan**

Exhibit No.	Description of Improvement	Priority of Implements			Comment
		Short Term	Basic 2010 Plan	Post 2010	
<b>Segment I: C-1</b>	Implement recommended cross section Relocate Illinois 83 and Illinois 83 intersection Interchange at FAP 342 Extend Midlothian Road north Extend Harris Road south Signalize Midlothian Road, Harris Road and local access road Capacity improvements at U.S. 45 intersection	• • •	• • • • •		Could be short-term depending on warrants.
<b>C-2</b>	Implement recommended cross section Relocate Peterson Road Construct frontage/access road		• • •		
<b>Segment II: C-2</b>	Implement recommended cross section Reconstruct Illinois 137 structure over Peterson Road Develop two new local access roads Signalize local access road and Cass Drive Reconstruct the Illinois 21 and Illinois 137 (SRA to SRA) intersection	•	• • •		
<b>C-3</b>	Realign Des Plaines Drive and River Road Signalize Des Plaines Drive, River Road and Oak Grove Ave	• •			
<b>Segment III: C-4</b>	Implement recommended cross section Implement ISTHA plan at I-94 Reconstruct Illinois 43 intersection Signalize and extend access drive	• • • •	• •		Currently under construction
<b>C-5</b>	Implement proposed cross section Reconstruct U.S. 41 and Illinois 137 (SRA to SRA) intersections Implement right-turn lanes at Meridian, Ray and Lewis	• •	•		Undergoing Phase I study

### ***Short-Term Recommendations***

Short-term implementation recommendations represent plan elements or projects that address immediate problems and/or needs that are generally low cost in nature or reflect specific known plans, activities, etc. that are expected to occur well before the year 2010. Examples of short-term recommendations include intersection upgrading and signalization, or other localized reconstruction to accommodate known transportation needs.

Short-term recommendations along Peterson Road\Illinois 137 are associated primarily with current construction plans and/or ongoing Phase I engineering studies. These include: extend Midlothian Road to the north (per Lake County plans); extend Harris Road to the south; construct local access roads east of Butterfield Road; reconstruct Illinois 137 and Illinois 21 intersection (undergoing Phase I study); realign and relocate the intersections with Des Plaines Drive and River Road; reconstruct I-94 interchange (under construction); reconstruct Illinois 137 cross section from Illinois 43 to east of U.S. 41 (undergoing Phase I study); and add right-turn lanes at existing intersections east of Great Lakes Drive.

The total opinion of construction cost for remaining short-term recommendations is estimated to be \$780,000. Note that many of these short-term recommendations are already programmed improvements or are currently undergoing Phase I studies. For these type of improvements, estimates of future construction costs were not computed.

### ***Basic SRA Plan Recommendations***

Basic SRA plan recommendations represent those elements or projects to be constructed within the normal course of prioritization for any SRA project. These recommendations generally will include most plan elements not designated as short-term, with the only other notable exception specified as the post-2010 recommendations. The total cost of the basic SRA plan is estimated to be \$25.8 million in 1991 dollars.

### ***Post-2010 Plan Recommendations***

Post-2010 plan recommendations represent elements of the SRA plan that are considered lower priority for a number of reasons. They may include high-cost elements, such as

new interchanges and river crossing, for which operational needs may not occur for many years. They also include plan elements that are contingent on improvements for which the schedule is unknown or long-term in nature. Only one plan element has been identified as a post-2010 recommendation. That plan element is a new interchange located along U.S. 41 with Illinois 137. The total estimated construction cost would be in excess of \$7.5 million in 1991 dollars.

*Illinois 137/  
Peterson Road SRA*

**Chapter V**

**Public Involvement**

## **Chapter V**

### **Public Involvement**

The public involvement process includes three elements: the SRA advisory panel meetings, the newsletter, and the public hearing.

An advisory panel was established to assist/comment on the study of the Illinois 137/Peterson Road corridor from Illinois 83 to the Amstutz Highway. The panel included officials from Lake County, Round Lake Park, Libertyville, Green Oaks, North Chicago, and Great Lakes Naval Station. Three advisory panel meetings were held at key junctures throughout the study. At the first advisory panel meeting on April 8, 1993, the existing conditions and concerns along the Illinois 137/Peterson Road corridor were presented. The second advisory panel meeting was held on September 28, 1993. At this meeting, the overall long-range alternatives for the Illinois 137/Peterson Road corridor were discussed and written comments were requested. The third advisory panel meeting was held on September 19, 1995. At this meeting, the draft final report was reviewed with panel members.

Finally, a public hearing was held on October 3, 1995. The hearing was held prior to publishing the Illinois 137/Peterson Road corridor final report to allow the public to comment on the recommended plan. Responses to a summary of written and verbal comments received at the public hearing and in the 30-day comment period are enclosed in this section.

## **Advisory Panel Meeting Minutes**

## MEETING MINUTES



**SUBJECT:** Strategic Regional Arterial System  
Advisory Panel Meeting No. 1  
IL 137/Peterson Road, Lake County  
Corridor Limits-IL 83 to the Amstutz Highway

**LOCATION:** Lake County Div. of Transportation-Libertyville

**DATE:** April 8, 1993

**TIME:** 1:30 PM

**ATTENDANCE:** See Attached Roster

**PROJECT:** CHI31495.14.A5

The SRA Advisory Panel Meeting for the IL 137/Peterson Road corridor in Lake county was attended by representatives of the Chicago Area Transportation Study (CATS) and CH2M Hill, and the Study Advisory Panel members on April 8, 1993. Attendees were given a handout describing the following: limits of the corridor, a list of involved communities and panel membership, a schedule of subsequent panel meetings and public hearings, SRA planning objectives, desired typical cross sections, planning focus areas, and SRA alternatives development concepts. Specific items discussed are noted below.

1. Kathleen Rodi (CATS) opened the meeting with an introduction of the CATS 2010 transportation plan and emphasized:
  - a) The major expressway and transit systems would not be able to carry the 2010 forecast travel demand. Hence, the SRA system was developed to assist in serving the high volume / long haul trips.
  - b) The SRA corridors are existing roads also serving local needs. Therefore, the SRA system must serve a dual role.
  - c) The current study is part of the 5-year program to help make decisions about the ultimate configuration of the SRA corridor. This study will serve as a framework within which long range planning will take place.
2. Tim Neuman of CH2M Hill commented on the status of current SRA studies, noting that this was the second SRA study to get started. He noted that each corridor would have a public hearing, and that some of the corridors for the second SRA phase had been finished. He and Kathleen also mentioned that the reports from the first phase of SRA would be released soon.

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April 8, 1993

CHI31495.14.A5

3. Tim Neuman (CH2M Hill) then presented an overview of the study process noting the following:

a) SRA studies are done ahead of normal Phase 1 studies.

The objective is to identify long range needs and develop a tool for preservation of right-of-way.

b) An important roll of the panel is the coordination of future land use with SRA corridor improvement goals.

Lastly, Tim mentioned that any input from the panel members was encouraged, especially considering the size of this particular panel.

4. Keith Knapp (CH2M Hill) presented the "Planning Focus Areas" for the IL 137/Peterson Road corridor. Keith noted that these areas represented places where constraints to developing the desirable SRA corridor typical cross section and objectives existed. The points raised during the presentation are discussed in the questions / answers / comments section below.

5. Tim Neuman completed the presentation by reviewing various improvement strategies which would be considered. This was followed by the question / answers / comments period.

### Questions/Answers/Comments

CH2M Hill was asked whether they knew about the FAP 342 extension, and its potential location and interchange with Peterson Road. Tim Neuman indicated that we did know about the FAP 342 project, and that it would be taken into account within the IL 137/Peterson Road SRA plan.

The following points were raised about Exhibit B-1 (IL 83 to U.S. 45):

- Peterson Road is currently under Lake County jurisdiction
- The County's 2005 Transportation Plan calls for Peterson Road to be a four lane facility, and they have right-of-way and alignment plans (Mark Schmidt indicated that he would send these to CH2M Hill)
- There are gas lines run underneath Peterson Road. Keith Knapp indicated that CH2M Hill was going to request plans for these pipes,
- The area labeled North Shore Gas to the north of Peterson Road is actually a Village pumping station and water tank

## M E E T I N G   M I N U T E S

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- With reference to historic building symbol at IL 83/Peterson Road, Lake County indicated that the State Historic Preservation Officer had told them that no historic buildings existed along Peterson Road. Tim Neuman mentioned that all the symbols shown on the plans (LUST sites, historic sites, etc.) were drawn from IDOT lists.
- Midlothian Road is planned for extension to the north
- Harris Road is planned for extension to the south

There were some questions about the LUST sites indicated on Exhibit B-2 (Peterson Road to IL 21). What are they? Have they been cleaned up? Tim Neuman repeated that all the sites indicated on the plan were derived from IDOT lists, but that we would check those lists for any updates.

Upon review of Exhibit B-3 (IL 21 to St. Marys Road), it was mentioned that the Army Corp of Engineers has plans to construct berms east of the Des Plaines River and south of IL 137.

The following comments were made about Exhibit B-4 (St. Marys Road to east of IL 43):

- It was mentioned that CH2M Hill should check into some possible plans for a park and ride facility in conjunction with the interchange construction
- Abbott Labs owns the Ammoco Tool site indicated to the north of IL 137

No comments were made about Exhibit B-5 (West of U.S. 41 to the Amstutz Highway).

Some questions were asked about whether any planned frontage roads in conjunction with the SRA plan would be eligible for federal funds. Tim Neuman indicated that it really depends on how the funding for the SRA system evolves, but that if a frontage road were considered part of the recommended SRA corridor plan it could be eligible, depending on the particular project circumstances. Tim also added that any questions pertaining to the funding of SRA should really be referred to Rich Starr at IDOT.

The representative from the TMA of Central Lake County requested that they be added to the IL 137/Peterson Road mailing list. Keith Knapp indicated that they would add the TMA to the panel, and include it on the mailing list.

These minutes were prepared by Keith Knapp, CH2M HILL. Please forward any additions or corrections.



## MEETING MINUTES



**SUBJECT:** Strategic Regional Arterial System  
Advisory Panel Meeting No. 2  
IL 137/Peterson Road, Lake County  
Corridor Limits-IL 83 to the Amstutz Highway

**LOCATION:** Lake County Div. of Transportation-Libertyville

**DATE:** September 28, 1993

**TIME:** 9:30 AM

**ATTENDANCE:** See Attached Roster

**PROJECT:** CHI31495.14.A5

The SRA Advisory Panel Meeting for the IL 137/Peterson Road corridor in Lake county was attended by representatives of The Illinois Department of Transportation (IDOT), the Chicago Area Transportation Study (CATS) and CH2M Hill, and the Study Advisory Panel members on September 28, 1993. Prior to the meeting, attendees were provided with a handout and exhibits which described:

- Existing roadway conditions including traffic volumes, number of lanes and existing roadway and right-of-way width, locations of existing signals and the locations of multiple access points.
- Future traffic volumes, ongoing improvement studies, and the preferred cross section as presented in the SRA Conception Definition Report.
- The improvement concept plan which indicated the proposed number of lanes, median type and width, general indication of the amount of right-of-way required and locations of future signalized intersections.

The meeting began with a presentation by Mr. Reynen. He explained that the SRA arterials were selected by CATS for improvement study in response to increased traffic reflected in the 2010 forecast. Approximately 1300 miles of arterials will be studied in five groups. The Peterson Road/ Il Route 137 corridor is one of 13 corridors in the second group. SRA studies are long range planning studies. There is no identified funding or implementation schedule. The studies are intended to identify a framework within which future improvements would be developed as needed and as public consensus warranted. The studies are also intended to communicate ultimate roadway widening intentions to community's land owners so that they may plan further development accordingly.

## MEETING MINUTES

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Referring to the Existing Conditions Exhibit, Mr. Reynen noted that the Peterson Road section was a 2-lane road within 80 to 120 feet of right-of-way. West of the interchange with Il Route 137, the roadway is 4 lanes wide. A wide grass median exists east of Butterfield Road where existing right-of-way varies between 150 and 180 feet. East of this section to US 41 the roadway is four lanes wide with a one lane mountable median generally within 80 to 150 feet of right-of-way. East of US 41 the corridor is 4 or 6 lanes wide with a median of 18 to 36 feet. Areas sensitive to widening include right-of-way constrained by gas company facilities on the north and south sides of Il Route 137 east of US 45; the commercial district west of Il Route 21; and the area between Il Route 21 and I-94 with residential land uses on the south and Forest Preserve lands and a cemetery on the north.

Existing average daily traffic (ADT) is between 7,000 and 10,000 vehicles per day on the Peterson Road section of the corridor. Between the Il Route 137 interchange and I-94 traffic is generally in the range of 20,000 vehicles per day. East of I-94 traffic drops to 9000 ADT and builds to about 15,000 at the eastern end of the project.

The Planning Framework Exhibit shows future (2010) CATS forecast traffic to be about double the existing volumes. This exhibit also illustrated future land use based on land use plans submitted by the individual communities. It was emphasized that the land use plans show all of the vacant land filling in the future, thus supporting the need for future roadway improvements. The two main areas of infill directly adjacent to the corridor include the area along Peterson Road which is expected to develop as industrial, and an area between I-94 and US 41 which is expected to grow with the expansion of Abbott Labs and others. The planning framework also noted that the preferred SRA cross section for this corridor was the suburban section which consisted of three lanes in each direction and an 18 to 46 foot medians within 120-150 feet of right-of-way. Wider medians better enable vehicles to make U-turns to approach their destination, allowed for greater flexibility for plantings in the median and make it easier for vehicles to be sheltered from through traffic within the median.

The concepts on which the proposed improvement plan would be based were illustrated in the third exhibit. Mr. Reynen noted that the primary conclusion to be noted from this exhibit was that a six lane roadway should be provided throughout the length of this corridor. Compromises may be required where the availability of right-of-way is limited. The concept plan also showed the desirable locations of future traffic signals which would preserve minimum signal spacing and provide for necessary access. A proposed barrier median would restrict median crossings to selected openings at intersections and where U-turns would be necessary to maintain local access. The proposed plan would also include transit related improvements such as signing to Metra stations, bus pullouts, and signal coordination.

## MEETING MINUTES

Page 3

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A question/answer period followed the presentation of the existing conditions and proposed concept plans. The following comments were made during this period:

- Mr. Pettingill asked whether the traffic forecasts included 1) the new interchange with the proposed extension of US 53 and 2) the addition of ramps to and from the north at I-94. It was noted that the Route 53 interchange was in the forecast but the I-94 ramps were not. Also, the traffic numbers were used as a general measure of activity during this planning level effort. More accurate local traffic counts and forecast data is used for detailed planning and design studies which would be completed before any part of this plan were built.
- Mr. Adams asked how access to commercial drives west of Il Route 21 would be preserved if a barrier median would be constructed. It was noted that a barrier median would limit some access to right-in/right-out operation. Median crossing points would be included so that vehicles could reach either side of the road without undue additional travel. Area businesses would be consulted during the planning and design phases to develop a plan that would improve traffic conditions and provide acceptable levels of access. Compromises would likely be required.
- Mr. Adams noted that a new subdivision was being planned at the northeast quadrant of O'Plaine Road. He asked if it would be better for access to this development to come from O'Plaine Road rather than Il Route 137. Reducing the number of access points, existing and future, is one of the most important goals of SRA planning. Changing the primary access to O'Plaine Road is strongly encouraged and would represent an immediate positive result of this early planning.
- Mr. Pettingill asked to what extent transit improvements are being addressed as part of SRA planning. Mr. Reynen explained that the SRA studies were only one part of Operation Green Light which included other programs that focused on transit improvements. The SRA studies focus on the roadway part of the system but also support improved transit in so far as roadway improvements allow. Signal preemption, signing, bus shelters, bus pullouts, and station access roads are examples of SRA roadway improvements which are included in support of transit efforts.
- Mayor Eckmann noted the need to consider linking bicycle trail planning from the west, past the Il Route 137 interchange and to a crossing into the forest

## MEETING MINUTES

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preserve east of Il Route 21. This would be studied further before the plan was completed.

- It was noted that the SRA planning process should be aware of the intergovernmental growth management planning taking place as part of the Route 53 corridor studies. This information will be passed along from IDOT to the consultant. It was also suggested that Phil Peters of NIPC be contacted.
- There were questions as to whether additional widening of Il Route 137 could take place at the Il Route 22 intersection without affecting a business. (The ongoing Phase 1 study of improvements at this intersection is having difficulty developing a lessor plan without affecting businesses at this intersection.) It was acknowledged that the proposed SRA improvements at this intersection implied that one of the two businesses (north side / south side) would have to be relocated to implement the SRA as proposed. It was suggested that this be considered in the context of a long range plan rather than viewing this as an immediate effect. Before this intersection would be further improved beyond that being designed today, public and political support based on need would have to be in place.
- Mr. Buehler questioned the need to plan for six lanes on the Peterson Road section of the corridor. Mr. Reynen noted that this would be included in the plan to maintain system continuity of a six lane road between the other major roadways and activity centers to the east and the proposed Route 53 expressway to the west. This section may not be constructed as a six lane section if future traffic patterns did not justify it. It was also noted that we have information regarding Lake County's efforts in planing a four-lane roadway. The proposed plan reflects the Lake County plan with respect to which side of the road most of the widening should take place (to minimize conflicts with high pressure gas lines). Our plan also reflects agreements regarding access locations as we know them.
- Mr. Buehler questioned the need to reconstruct the interchange between Peterson Road and Il Route 137. This has also been included with the concept of corridor continuity in mind. The future design would have to respond to actual traffic patterns at that time.
- It was noted that the Forest Preserve District was developing plans for access to a recreation area in the northeast corner of the Il Route 21 intersection.

## MEETING MINUTES

Page 5

September 28, 1993

CHI31495.14.A5

CH2M HILL will arrange a meeting with the District to discuss coordination between plans. Mike Fenlin should be contacted.

- Access should not be shown north of Il Route 137 at Clover Lane. This land is owned by Ascension Cemetery.
- It was noted that the 6-lane sections east of US 41 would not require further improvements for the SRA plan beyond the possible addition of right turn lanes. Great Lakes Navel Base is interested in improvements at the intersection of Great Lakes Drive.
- Green Oaks has a comprehensive trail plan which should be considered in this planning. A copy of this plan was requested. It was noted that the basic section being considered would include enough right-of-way for at least a sidewalk. A separate bike trail would require additional width.
- It was suggested that the crossing of the C&NW RR freight line be grade separated. It was noted that the SRA program considered all rail grade separations desirable but consideration must be give to the practicality and priority of individual cases. Freight lines generally do not affect peak hour traffic as much as commuter rail lines.
- Several people noted that there should be an interchange between US 41 and Il Route 137.
- A north-south bicycle path crossing of Il Route 137 should be considered at the Commonwealth Edison crossing.

The meeting ended with Mr. Reynen offering a preliminary plan on aerial sheets for examination. Those requesting them would receive a copy of the sheets pertaining to their area of interest. Follow up calls would be made to obtain individual comments prior to formulating the final Draft Plan.

These minutes were prepared by Theodore A. Reynen of CH2M HILL. Please forward any additions or corrections.



## MEETING MINUTES

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**SUBJECT:** Strategic Regional Arterial System  
Advisory Panel Meeting No. 3  
Illinois Route 137/Peterson Road, Lake County

**LOCATION:** Lake County Division of Transportation  
Libertyville, Illinois

**DATE:** September 19, 1996

**TIME:** 1:30 p.m.

**ATTENDEES:** See Meeting Roster (Attached)

**PROJECT:** 104274.14.A5

The SRA Advisory Panel Meeting for the Illinois 137/Peterson Road corridor was attended by representatives of the Illinois Department of Transportation (IDOT), Chicago Area Transportation Study (CATS), CH2M HILL, and the Corridor Advisory Panel Members. Attendees are listed on the attached Meeting Roster.

Tim Neuman (CH2M HILL), opened the meeting by asking attendees to introduce themselves. Tim began by presenting an overview of the first two panel meetings and summarized the background of the SRA study. Tim discussed the purpose of this meeting, stating that the SRA plan for this corridor would be discussed in detail along with key study recommendations.

The schedule for completing the Illinois 137/ Peterson Road corridor was discussed. Tim pointed out that the public hearing would be held on October 3, 1996, at the Libertyville Civic Center. Comments and questions from this panel meeting and the public hearing will be addressed and incorporated where appropriate in the final SRA report.

Tim, then discussed the delay in the schedule for this SRA study. Tim sighted on-going phase I work in the study area as the principle cause for the delays. These on-going studies included the Phase I study along Illinois 137, east of I-94, as well as the study of FAP 342. Tim pointed out that CH2M HILL has attempted to update the plan where possible. Tim then requested from panel members any new information to assist in updating the plan.

Tim then proceeded to present the details of the proposed Illinois 137/Peterson Road corridor plan. The following points summarize questions, concerns and comments from panel members.

- Marty Buehler commented on the desire to provide left turn access at Industrial Drive. Rich Starr responded that this would be added to the plan per Lake County's request.
- A comment was made that there are development plans in the southeast quadrant of the Butterfield Road intersections and that full access is desired with Illinois 137. Tim Neuman pointed out that there is an existing signal at the Butterfield Road intersection. If full access is

## MEETING MINUTES

Page 2

September 30, 1995

104274.14.A6

desired it would be necessary to move the access as far east as possible. Rich Starr stated that he would need to talk to the permits department at IDOT to establish how close to the signal the access point could be located.

- There was significant discussion over the location of a new signal east of Butterfield Road.
- Marty Buehler asked about providing a dual left turn lane northbound at the Butterfield Road intersection. It was agreed that the plan would show dual left turn lanes both northbound and southbound. Mr. Buehler also asked how bicycles and pedestrians would cross the corridor. Rich Starr pointed out that these movements across the corridor would be accommodated at the signal located at Butterfield Road.
- A comments was made that there are a number of complaints regarding "cut-through" traffic on Cass Drive, that results from drivers bypassing the Illinois 21 and Illinois 137 intersection. Tim Neuman pointed out that the plans to reconstruct the Illinois 21 intersection should improve the capacity at the intersection. This should help to alleviate the "cut-through" traffic. Tim acknowledged that there may still be some drivers using Cass to bypass the signal at Illinois 21.
- A comment was made that there are current plans for a Hotel in the southeast quadrant of the Illinois 137 and Illinois 21 intersection and that the Hotel would require access to Illinois 137. Rich Starr indicated that due to the proximity of the Illinois 137 and Illinois 21 signalized intersection, access would likely be restricted to right-in/right-out only.
- A question was asked whether CH2M HILL had a copy of the Adopted Forest Preserve Plan. Tim Neuman pointed out that the plan is intended to be consistent with and compatible with the revised forest preserve plan.
- Marty Buehler requested that the Commonwealth Edison Power lines located parallel to U.S. 41 be identified on the plan.
- A request was made that the Des Plaines River Trail (crossing under Illinois 137 at the Des Plaines River) be shown on Exhibit C-3.
- There was considerable discussions over the locations of bicycle path crossing at O'Plaine Road and St. Mary's Road, the locations of bicycle paths and how bicycle paths would be interconnected.

Tim Neuman concluded the meeting by thanking the panel members for their attendance and contributions to the project.



## **Second Advisory Panel Meeting Correspondence**



October 1, 1993

CHI31495.14.A5

Mr. Martin G. Buehler  
Director of Transportation  
Lake County Div. of Transportation  
600 Winchester Road  
Libertyville, IL 60048

Dear Mr. Buehler:

Subject: IL Route 137/Peterson Rd. SRA Study  
Preliminary Review Plans

Thanks for your attendance and participation at the second panel meeting of the IL Route 137/Peterson Road SRA Study. We appreciate your interest and input.

At the end of the meeting we showed you a set of aerial plan sheets which included our preliminary ideas for SRA improvements to Peterson Road or IL Route 137 consistent with the improvement concepts described at this meeting and described in the handout you received in advance of the meeting.

I have enclosed a set of sheets covering your area of interest (Sheets 1 to 5) for your further review and comment. I will be contacting you within a week or so to discuss your comments or arrange a meeting if necessary. In order to maintain our schedule we would like to have discussed these proposals with you and the other panel members individually by the third week of October. Your cooperation in maintaining this pace is appreciated.

We look forward to your comments as we work toward a SRA improvement plan which both serves the transportation needs of the area and is acceptable to the adjoining communities.

Sincerely,

CH2M HILL

A handwritten signature in cursive script that reads 'Theodore A. Reynen'.

Theodore A. Reynen, P.E.  
Corridor Manager

bw/CHI276/026.WP5

encl.



October 1, 1993

CHI31495.14.A5

Mr. Harry Pettingill  
Abbott Laboratories  
One Abbott Park Road  
Abbott Park, IL 60064

Dear Mr. Pettingill:

Subject: IL Route 137/Peterson Rd. SRA Study  
Preliminary Review Plans

Thanks for your attendance and participation at the second panel meeting of the IL Route 137/Peterson Road SRA Study. We appreciate your interest and input.

At the end of the meeting we showed you a set of aerial plan sheets which included our preliminary ideas for SRA improvements to Peterson Road or IL Route 137 consistent with the improvement concepts described at this meeting and described in the handout you received in advance of the meeting.

I have enclosed a set of sheets covering your area of interest (Sheets 4 and 5) for your further review and comment. I will be contacting you within a week or so to discuss your comments or arrange a meeting if necessary. In order to maintain our schedule we would like to have discussed these proposals with you and the other panel members individually by the third week of October. Your cooperation in maintaining this pace is appreciated.

We look forward to your comments as we work toward a SRA improvement plan which both serves the transportation needs of the area and is acceptable to the adjoining communities.

Sincerely,

CH2M HILL

  
Theodore A. Reynen, P.E.  
Corridor Manager

bw/CHI276/026.WP5

encl.



October 1, 1993

CHI31495.14.A5

Commander Naval Training Center  
Att: Ken Endress (FAC2)  
Building 5  
Great Lakes, IL 60088-5000

Dear Mr. Endress:

Subject: IL Route 137/Peterson Rd. SRA Study  
Preliminary Review Plans

Thanks for your attendance and participation at the second panel meeting of the IL Route 137/Peterson Road SRA Study. We appreciate your interest and input.

At the end of the meeting we showed you a set of aerial plan sheets which included our preliminary ideas for SRA improvements to Peterson Road or IL Route 137 consistent with the improvement concepts described at this meeting and described in the handout you received in advance of the meeting.

I have enclosed a set of sheets covering your area of interest (Sheets 4 and 5) for your further review and comment. I will be contacting you within a week or so to discuss your comments or arrange a meeting if necessary. In order to maintain our schedule we would like to have discussed these proposals with you and the other panel members individually by the third week of October. Your cooperation in maintaining this pace is appreciated.

We look forward to your comments as we work toward a SRA improvement plan which both serves the transportation needs of the area and is acceptable to the adjoining communities.

Sincerely,

CH2M HILL

A handwritten signature in cursive script that reads 'Theodore A. Reynen'.

Theodore A. Reynen, P.E.  
Corridor Manager

bw/CHI276/026.WP5

encl.



October 1, 1993

CHI31495.14.A5

The Hon. JoAnn Eckmann  
Mayor  
Village of Libertyville  
200 E. Cook  
Libertyville, IL 60048

Dear Mayor Eckmann:

Subject: IL Route 137/Peterson Rd. SRA Study  
Preliminary Review Plans

Thanks for your attendance and participation at the second panel meeting of the IL Route 137/Peterson Road SRA Study. We appreciate your interest and input.

At the end of the meeting we showed you a set of aerial plan sheets which included our preliminary ideas for SRA improvements to Peterson Road or IL Route 137 consistent with the improvement concepts described at this meeting and described in the handout you received in advance of the meeting.

I have enclosed a set of sheets covering your area of interest (Sheets 1 to 3) for your further review and comment. I will be contacting you within a week or so to discuss your comments or arrange a meeting if necessary. In order to maintain our schedule we would like to have discussed these proposals with you and the other panel members individually by the third week of October. Your cooperation in maintaining this pace is appreciated.

We look forward to your comments as we work toward a SRA improvement plan which both serves the transportation needs of the area and is acceptable to the adjoining communities.

Sincerely,

CH2M HILL

  
Theodore A. Reynen, P.E.  
Corridor Manager

bw/CHI276/026.WP5

encl.



October 1, 1993

CHI31495.14.A5

Steve Magnusen  
Village of Libertyville  
200 E. Cook  
Libertyville, IL 60048

Dear Mr. Magnusen:

Subject: IL Route 137/Peterson Rd. SRA Study  
Preliminary Review Plans

Thanks for your attendance and participation at the second panel meeting of the IL Route 137/Peterson Road SRA Study. We appreciate your interest and input.

At the end of the meeting we showed you a set of aerial plan sheets which included our preliminary ideas for SRA improvements to Peterson Road or IL Route 137 consistent with the improvement concepts described at this meeting and described in the handout you received in advance of the meeting.

I have enclosed a set of sheets covering your area of interest (Sheets 1 to 3) for your further review and comment. I will be contacting you within a week or so to discuss your comments or arrange a meeting if necessary. In order to maintain our schedule we would like to have discussed these proposals with you and the other panel members individually by the third week of October. Your cooperation in maintaining this pace is appreciated.

We look forward to your comments as we work toward a SRA improvement plan which both serves the transportation needs of the area and is acceptable to the adjoining communities.

Sincerely,

CH2M HILL

  
Theodore A. Reynen, P.E.  
Corridor Manager

bw/CHI276/026.WP5

encl.



October 1, 1993

CHI31495.14.A5

Elane Palmer  
Village of Green Oaks  
2020 O'Plaine Road  
Green Oaks, IL 60048

Dear Ms. Palmer:

Subject: IL Route 137/Peterson Rd. SRA Study  
Preliminary Review Plans

Thanks for your attendance and participation at the second panel meeting of the IL Route 137/Peterson Road SRA Study. We appreciate your interest and input.

At the end of the meeting we showed you a set of aerial plan sheets which included our preliminary ideas for SRA improvements to Peterson Road or IL Route 137 consistent with the improvement concepts described at this meeting and described in the handout you received in advance of the meeting.

I have enclosed a set of sheets covering your area of interest (Sheets 2 and 3) for your further review and comment. I will be contacting you within a week or so to discuss your comments or arrange a meeting if necessary. In order to maintain our schedule we would like to have discussed these proposals with you and the other panel members individually by the third week of October. Your cooperation in maintaining this pace is appreciated.

We look forward to your comments as we work toward a SRA improvement plan which both serves the transportation needs of the area and is acceptable to the adjoining communities.

Sincerely,

CH2M HILL

  
Theodore A. Reynen, P.E.  
Corridor Manager

bw/CHI276/026.WP5

encl.



October 1, 1993

CHI31495.14.A5

The Hon. Thomas Adams  
Mayor  
Village of Green Oaks  
2020 O'Plaine Road  
Green Oaks, IL 60048

Dear Mayor Adams:

Subject: IL Route 137/Peterson Rd. SRA Study  
Preliminary Review Plans

Thanks for your attendance and participation at the second panel meeting of the IL Route 137/Peterson Road SRA Study. We appreciate your interest and input.

At the end of the meeting we showed you a set of aerial plan sheets which included our preliminary ideas for SRA improvements to Peterson Road or IL Route 137 consistent with the improvement concepts described at this meeting and described in the handout you received in advance of the meeting.

I have enclosed a set of sheets covering your area of interest (Sheets 2 and 3) for your further review and comment. I will be contacting you within a week or so to discuss your comments or arrange a meeting if necessary. In order to maintain our schedule we would like to have discussed these proposals with you and the other panel members individually by the third week of October. Your cooperation in maintaining this pace is appreciated.

We look forward to your comments as we work toward a SRA improvement plan which both serves the transportation needs of the area and is acceptable to the adjoining communities.

Sincerely,

CH2M HILL

A handwritten signature in cursive script that reads 'Theodore A. Reynen'.

Theodore A. Reynen, P.E.  
Corridor Manager

bw/CHI276/026.WP5

encl.

**Public Hearing Comments,  
Questions, and Responses**

## IL 137/Peterson Road SRA Public Hearing

TO: Illinois Department of Transportation  
COPIES: Rich Starr/IDOT  
FROM: Tim Neuman/CH2M HILL  
DATE: March 8, 1996

This memorandum summarizes written and oral comments taken by IDOT, the consultant team staff, and the court reporter at the public hearing for the IL 137/Peterson Road SRA study held on October 3, 1996. Responses to the comments are in bold type following the appropriate comments.

### Mrs. Debra Titus - Mundelein

Mrs. Titus indicated that her family has a vegetable stand business north of Peterson Road, east of IL 83. She was concerned about how access would be provided to the vegetable stand business as part of the IL 137/Peterson Road SRA study. Also, she was concerned about the livelihood of the business and that if business were eliminated, her family may not be adequately compensated for the loss.

**The SRA plan does incorporate current Phase 1 improvements including the relocation of IL 83 to the west and the FAP 342 ParcloAB interchange with Peterson Road east of existing IL 83. In addition, the widening of Peterson Road to a six lane cross section with a 30-foot median in the vicinity of IL 83 will require 60 feet of additional R.O.W. to the north of Peterson Road. While the proposed SRA plan and the proposed improvements will impact the current location of the vegetable stand, access is provided to existing IL 83 from the relocated IL 83 alignment if the vegetable stand was moved.**

**IDOT would make every effort to relocate the business and provide access to it off IL 83.**

### Mr. Dean Larson - Libertyville

His concern was that the R.O.W. taken to the south as a result of the relocation of Peterson Road, west of the METRA - MILWAUKEE North Line, may impact the Libertyville Township Open Space District and the Libertyville Soccer Complex.

**The relocation of Peterson Road, west of the METRA MILWAUKEE North Line, will not impact the Libertyville Soccer Complex. The Soccer Complex is located to the south of the Bull Creek Tributary and east of US 45.**

### Other Comments Made by the General Public

A question was asked whether or not the location of the bike path at IL 53 was on the north side or south side of Peterson Road. Their preference would be to have the bike path located on the south side at this location.

**The location of the bike path as per Lake County Plans is to the north side of Peterson Road from west of Route 45 to IL 83.**

IN RE: )  
 )  
STRATEGIC REGIONAL ARTERIAL )  
 )  
OPERATION GREENLIGHT )  
 )  
 )  
ILLINOIS ROUTE 137/PETERSON )  
ROAD )  
 )  
ILLINOIS 83 TO AMSTUTZ )  
HIGHWAY )

LAKE COUNTY PUBLIC HEARING

REPORT of comments made at the Public Hearing of the above-captioned study and summary of recommendations, taken before Joan M. Kenny, C. S. R., a Notary Public in and for the County of DuPage, State of Illinois, at the Libertyville Civic Center, 35 West Church Street, Libertyville, Illinois, on Tuesday, the 3rd day of October, A. D. 1995, between the hours of 2:00 and 7:00 P. M.

DEBRA TITUS: Debra Titus, 1108 Lomond,  
L-o-m-o-n-d, Drive, Mundelein.

As a property owner of Route 83 and  
Peterson Road, the northwest corner, I am concerned  
about our access for our vegetable stand business.

We have been in business for 16 years.  
And the family farm, which is also located on  
Peterson Road, has been in existence for over 125  
years.

We are one of the last vegetable growers  
in the area that actually grows the vegetables and  
actually sells them without buying them from someone  
else.

And I am concerned about our livelihood  
being affected and that we will not be amply  
compensated for our loss.

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DEAN LARSON: Dean, D-e-a-n, Larson,  
L-a-r-s-o-n. I am a Trustee in the Village of  
Libertyville but I am basically here as a citizen  
and not officially.

Now, the right-of-way west of the METRA tracks, which is for acquisition on the south side, also may intrude into the Libertyville Township Open Space District and, also, the Libertyville Soccer Complex.

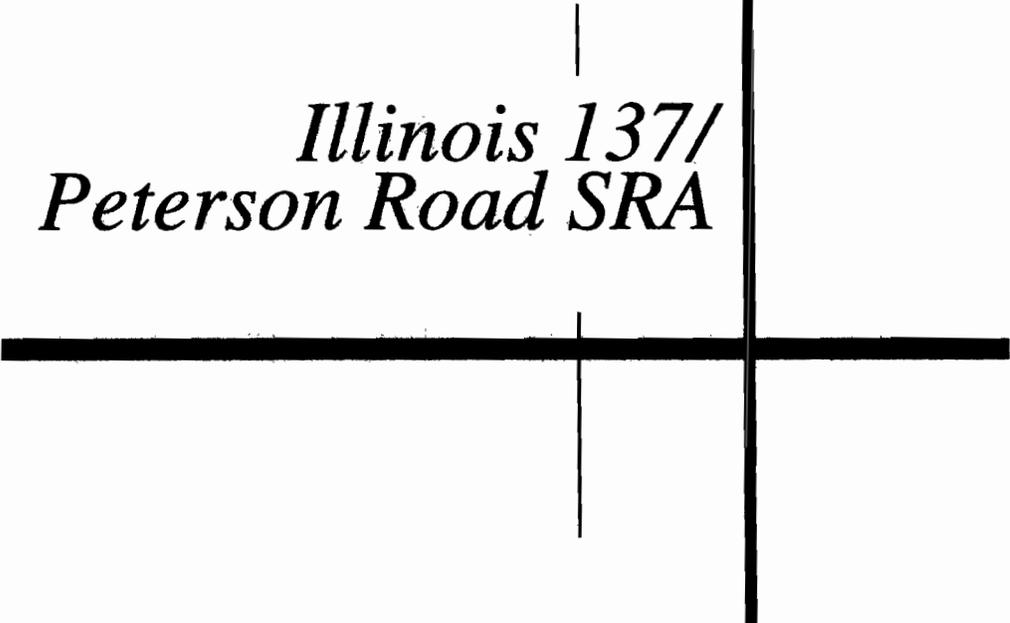
And the maps that you have are 1990 maps, the aerial photos. They do not show these improvements, so you will want to determine what is at that location to coordinate with those agencies your plans for acquisition.

I don't know whether either one of them have come this evening, but you ought to contact those two agencies because they will be concerned to know what you are going to do, also, other than just reading it in the newspaper.

That is basically it. Thank you.

(WHICH were all of the comments made at the above-captioned public hearing.)





*Illinois 137/  
Peterson Road SRA*

Appendix A  
Year 2010 Intersection  
Planning Capacity Analysis and  
Arterial Analysis



IL 137/Peterson Road  
Table A-1

Revised 12/13/95

Year 2010 Intersection Planning Capacity Analysis

IL 137/Peterson Rd And:	IL 137/Peterson Road						CROSSROAD						TOTAL V/C				
	TWO-WAY ADT	K	D	ROADSIDE FRICTION	% TURNS	LT TURN VOLUME	LANES ON APPROACH	V/C	TWO-WAY ADT	K	D	ROADSIDE FRICTION		% TURNS	LT TURN VOLUME	LANES ON APPROACH	V/C
194th St	54800	10%	60	0.99	10%	209	L-TT-R	0.65	20000	10%	60	0.99	30%	360	L-T-R	0.48	1.13
194th St RAMP (1)	54800	10%	60	0.99	20%	0	LL-TTT TTT-R	0.46	12000 (ONE WAY)	10%	-	0.99	50%	360	LL-RR	0.12	0.58
194th St RAMP (1)	42100	10%	50	0.99	20%	505	L-TTT TTT-R	0.56	12000 (ONE WAY)	10%	-	0.99	50%	360	LL-RR	0.12	0.68
Abbott Dr (1)	42100	10%	60	0.99	10%	0	LL-TTT TTT-R	0.56	5000	10%	60	0.99	30%	90	LL-R	0.21	0.77
IL 45	36200	10%	60	0.99	20%	434	LL-TTT-R	0.39	34400	10%	60	0.99	20%	413	LL-TTT-R LL-TTT-RR	0.37	0.75
ACCESS DR (1)	36200	10%	60	0.99	10%	217	LL-TT-TR LL-TTT-R	0.58	5000	10%	60	0.99	30%	90	L-TR LL-TR-R	0.18	0.76
OS 41	36200	10%	60	0.99	20%	434	LL-TTT-R	0.39	44700	10%	60	0.99	20%	536	LL-TTT-R	0.48	0.86
MISSISSIPPI (1)	34600	10%	60	0.99	10%	0	L-TTT TT-TR	0.74	5000	10%	60	0.99	50%	150	LR LT-R	0.09	0.83
ORCHARD DR (1)	34600	10%	60	0.99	10%	208	L-TT-TR	0.51	5000	10%	60	0.99	20%	60	LTR LT-R	0.25	0.75
McGraw St (1)	34600	10%	60	0.99	10%	208	LL-TT-TR LL-TTT-R	0.55	5000	10%	60	0.99	20%	60	LT-TR	0.18	0.73
WINDYBROOK (1)	35200	10%	60	0.99	20%	422	LL-TTT-R	0.38	25400	10%	60	0.99	20%	305	L-TT-R	0.44	0.82
WINDYBROOK (1)	35200	10%	60	0.99	10%	211	LL-TTT-R	0.42	9700	10%	60	0.99	20%	116	L-TR	0.37	0.79
WINDYBROOK (1)	26800	10%	60	0.99	10%	161	L-T-TR L-TT-R	0.55	5000	10%	60	0.99	20%	60	L-TR	0.19	0.74
WINDYBROOK (1)	26800	10%	60	0.99	10%	161	L-TT-R	0.50	5000	10%	60	0.99	20%	60	L-TR	0.19	0.69
WINDYBROOK (1)	26800	10%	60	0.99	20%	322	L-LT-TR	0.57	44500	10%	60	0.99	30%	749	L-TR-R L-R	0.54	1.11

Opposing Traffic = 416-268 = 148

IL 137/Peterson Road

Table A-1

Year 2010 Intersection Planning Capacity Analysis

Revised 12/13/95

IL 137/Peterson Rd And:	IL 137/Peterson Road										CROSSROAD					TOTAL V/C	
	TWO-WAY ADT	K	D	ROADSIDE FRICTION	% TURNS	LT TURN VOLUME	LANES ON APPROACH	V/C	TWO-WAY ADT	K	D	ROADSIDE FRICTION	% TURNS	LT TURN VOLUME	LANES ON APPROACH		V/C
83 (1)	27000	10%	60	0.99	10%	120	LL-TTT-R	0.24	7800	10%	60	0.99	30%	140	L-TT-R	0.14	0.38
542 NB RAMP (1)	25000	10%	60	0.99	30%	0	LL-TTT TTT-R	0.33	8000 (ONE WAY)	10%	-	0.99	50%	240	LL-R	0.33	0.66
542 NB RAMP (1)	27000	10%	60	0.99	30%	0	LL-TTT TTT-R	0.36	8000 (ONE WAY)	10%	-	0.99	50%	240	LL-R	0.33	0.69
542 NB RAMP (2)	27000	10%	60	0.99	10%	162	L-TTT-R	0.36	14100	10%	60	0.99	20%	169	L-T-R	0.41	0.77
HARRIS RD (1)	24800	10%	60	0.99	10%	149	L-TTT-R	0.33	5000	10%	60	0.99	30%	90	L-T-R	0.12	0.45
US 45	21400	10%	60	0.99	20%	257	LL-TT-R	0.31	23700	10%	60	0.99	20%	284	L-TT-R	0.41	0.72
LOCAL ACCESS (1)	19700	10%	60	0.99	10%	118	L-TT-R	0.37	5000	10%	60	0.99	20%	60	L-TR	0.19	0.56
BUTTRFIELD RD	33500	10%	60	0.99	10%	200	L-TTT-R	0.44	15200	10%	60	0.99	30%	274	LL-T-TR L-T-TR	0.18	0.63
LOCAL ACCESS (1)	31600	10%	60	0.99	10%	190	L-TTT-R	0.42	5000	10%	60	0.99	30%	90	L-TR	0.18	0.60
CASS DR. (1)	31600	10%	60	0.99	10%	190	L-TT-R	0.59	5000	10%	60	0.99	30%	90	L-TR	0.18	0.77
IL 234	31600	10%	60	0.99	20%	379	LL-TT-R	0.46	29800	10%	60	0.99	20%	358	LL-TT-R	0.44	0.90
DES PLAINES DR (1)	28400	10%	60	0.99	10%	170	L-TT-R	0.53	5000	10%	60	0.99	30%	90	L-TR	0.18	0.71
ROWER RD / WISCONSIN AVE	28400	10%	60	0.99	10%	170	L-TT-R	0.53	7500	10%	60	0.99	30%	135	L-TR	0.28	0.81
WISCONSIN AVE (1)	28200	10%	60	0.99	10%	121	L-TT TT-R	0.38	3600	10%	60	0.99	50%	150	L-R	0.21	0.58
WISCONSIN RD	22100	10%	60	0.99	10%	133	L-TT TT-R	0.41	10300	10%	60	0.99	30%	185	LR-R	0.38	0.79

(1) 2 LANE'S SPA CORRIDOR

ASSUMED CR AVAILABLE VOLUMES 27000 ADT FOR MAJOR ARTERIALS, 2000 FOR MINOR ARTERIALS, 5000 ADT FOR LOCAL ROADWAYS

US 45 AND 542 NB RAMP (1) AND (2) ARE 20' BAY CALCULATION GROUP (1) 1995

**Table A-2**  
**Suburban Arterial Level of Service Analysis Inputs**  
**Illinois 137/Peterson Road**

Intersection	Intersection Operations					Assumed Signal Operations					Arterial Type/Class and Speed <sup>h</sup>	
	V/C <sup>a</sup>	V/C For SRA	Left Turn Volume <sup>b</sup>	Number of Left Turn Lanes <sup>b</sup>	G/C for Left Turn <sup>b</sup>	Thru G/C <sup>c</sup>	Capacity <sup>d</sup>	Cycle Length <sup>e</sup>	Arrival Type <sup>f</sup>	Progression Factor <sup>g</sup>		Spacing to Intersection
IL 83	0.38	0.24	120	2	0.04	0.59	2840	120	III	1.00	800	I-45
FAP 342 SB RAMP	0.66	0.33	0	0	0.00	0.50	2400	90	III	1.00	1200	I-45
FAP 342 NB RAMP	0.69	0.36	0	0	0.00	0.52	2504	90	IV	0.77	1180	I-45
MIDLOTHIAN RD	0.77	0.36	162	1	0.11	0.36	1726	90	IV	0.81	1350	I-45
HARRIS RD	0.45	0.33	149	1	0.10	0.64	3054	90	IV	0.65	2600	I-45
U.S. 45	0.72	0.31	257	2	0.09	0.35	1122	120	III	1.00	1000	I-45
LOCAL ACCESS	0.56	0.37	118	1	0.08	0.58	1851	90	III	1.00	4646	I-45
BUTTERFIELD RD	0.63	0.44	200	1	0.13	0.57	2743	120	III	1.00	1160	I-45
LOCAL ACCESS	0.60	0.42	190	1	0.13	0.58	2760	90	III	1.00	2880	I-45
CASS DR.	0.77	0.59	190	1	0.13	0.64	2047	90	III	1.00	2280	I-45
IL 21	0.90	0.46	379	2	0.13	0.39	1242	120	III	1.00	2080	I-45
DES PLAINES DR.	0.71	0.53	170	1	0.11	0.63	2026	90	III	1.00	2370	I-45
RIVER RD.	0.81	0.53	170	1	0.11	0.54	1732	90	III	1.00	2550	I-45
OAK GROVE AVE	0.58	0.38	121	1	0.08	0.57	1822	60	III	1.00	3650	I-45
ST. MARY'S RD	0.79	0.41	133	1	0.09	0.43	1390	60	III	1.00	2100	I-45
O'PLAINE RD	1.13	0.65	209	1	0.14	0.44	1395	90	III	1.00	2500	I-45
I-94 EB RAMP	0.58	0.46	0	0	0.00	0.79	3807	90	III	1.00	830	I-45
I-94 WB RAMP	0.68	0.56	505	1	0.34	0.49	2336	90	IV	0.76	1790	I-45
ABBOTT DR	0.77	0.56	0	0	0.00	0.73	3491	90	III	1.00	1120	I-45
IL 43	0.75	0.39	434	2	0.14	0.38	1802	120	III	1.00	1760	I-45
ACCESS DR	0.76	0.58	217	2	0.07	0.69	3309	120	III	1.00	2482	I-45
U.S. 41	0.86	0.39	434	2	0.14	0.31	1482	120	III	1.00	1050	I-45
MISSISSIPPI ST	0.83	0.74	0	0	0.00	0.89	4278	90	IV	0.83	1040	I-45
GREAT LAKES DR	0.75	0.51	208	1	0.14	0.54	2580	90	IV	0.80	890	I-45

**Table A-2**  
**Suburban Arterial Level of Service Analysis Inputs**  
**Illinois 137/Peterson Road**

Intersection	Intersection Operations					Assumed Signal Operations						
	V/C <sup>a</sup>	V/C For SRA	Left Turn Volume <sup>a</sup>	Number of Left Turn Lanes	G/C for Left Turn <sup>b</sup>	Thru G/C <sup>c</sup>	Capacity <sup>d</sup>	Cycle Length <sup>e</sup>	Arrival Type <sup>f</sup>	Progression Factor <sup>g</sup>	Spacing to Intersection	Arterial Type/Class and Speed <sup>h</sup>
MERIDIAN ST	0.73	0.55	208	2	0.07	0.68	3284	120	IV	0.79	940	I-45
IL 131	0.82	0.38	422	2	0.14	0.32	1531	120	IV	0.83	1730	I-45
LEWIS AVE	0.79	0.42	211	2	0.07	0.46	2214	90	III	1.00	1020	I-45
RAY ST	0.74	0.55	161	1	0.11	0.64	2035	90	IV	0.72	640	I-45
ILLINOIS ST	0.69	0.50	161	1	0.11	0.62	1976	90	IV	0.72	930	I-45
AMSTUTZ HWY	1.11	0.57	322	1	0.21	0.30	963	120	IV	0.98	-	I-45

<sup>a</sup> From Intersection Planning Capacity Analysis--Table A-1

<sup>b</sup>  $G/C \text{ for left turns} = \frac{\text{Left-turn Volume/Left-turn Lanes}}{1,500}$

<sup>c</sup>  $G/C \text{ for through movement} = \frac{V/C \text{ for SRA}}{V/C \text{ for Intersection}} - G/C \text{ for Left Turns}$

<sup>d</sup> Capacity = 1,600 x number of through lanes x G/C (for through movement)

<sup>e</sup> Assumptions  
 signals: 60-90 seconds  
 3-Phase signals 90-100 seconds  
 4-Phase signals: 120-150 seconds

<sup>f</sup> Assume Type III, IV, or V, depending on spacing of signals relative to SRA guidelines per Highway Capacity Manual

<sup>g</sup> Per Highway Capacity Manual Table 11-6

<sup>h</sup> Per Highway Capacity Manual - Assume Type III for urban SRAs

IL 137/PETERSON ROAD

TABLE A-3

YEAR 2010 Intersection Planning Capacity Analysis

Summary of Illinois 137/Peterson Road Suburban Arterial Analysis					
Segment	Segment Length (miles)	Number of Signalized Intersections	Free Flow Operating Speed (mph)	100% of CATS "2010" Forecast	
				Average Peak Period Speed (mph)	LOS
Illinois 83 to Local Access	1.59	6	45	23	C
Local Access to River Road	2.92	6	45	30	B
River Road to O'Plaine Road	1.57	3	45	32	B
O'Plaine Road to I-94 WB Ramp	0.63	2	45	30	B
I-94 WB Ramp to U.S. 41	1.35	4	45	24	C
U.S. 41 to Amstutz Highway	1.56	8	45	21	D
<b>Overall Average Arterial Speed</b>				27	-

\*LOS = Level of service.