Strategic Regional Arterial

U.S. ROUTE 20

Boone - McHenry County Line
to Randall Road

VOLUME I

OPERATION GREENLIGHT

Illinois Department of Transportation

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Executive Summary

Since the early 1970's, development patterns have reflected a significant migration of people and employment from the City of Chicago to the surrounding suburbs. Though the region's population grew by only 4% during that period, the urbanized area increased by approximately 70%. The new development brought with it dramatically different travel patterns. While the principal transportation systems were designed to efficiently handle traditional suburb-to-city commuting patterns, significant growth occurred in suburb-to-suburb travel. These new travel demands overwhelmed the capacity of many of the region's expressways and arterial streets, causing traffic to spill over into adjacent neighborhoods as drivers sought to avoid congestion. Despite significant investments in transportation improvements over the last two decades, traffic congestion in the Chicago region has increased steadily.

Regional population and employment forecasts imply that even more difficult challenges lie ahead. NIPC has estimated that the region's population will increase as much as 24% between 1990 and 2020 which is four times the growth rate experienced between 1970 and 1990. Employment is expected to increase as much as 37% over the same period. Though growth will continue in the suburbs, significant infill growth is expected to occur in the City of Chicago and inner-ring suburbs as well. If the region's economic vitality and quality of life is to be preserved in the face of this expansion, significant improvements to transportation mobility must be achieved.

Transportation planning agencies have recognized that needed mobility improvements cannot be achieved solely through expansion of the region's expressway system. Thus, they are planning the creation of the Strategic Regional Arterial (SRA) system which is a comprehensive network of 1,390 miles of existing arterial highways in Northeastern Illinois. The SRA system is intended to supplement existing and proposed expressway facilities in accommodating long-distance, high volume automobile and commercial vehicle traffic. In order to meet the objectives of the SRA system, it will be necessary to transform the historic context of these arterial highways to one which emphasizes traffic mobility while still accommodating land access needs.

This report summarizes a planning study conducted for U.S. Route 20. This portion of the U.S. Route 20 study extends from the Boone/McHenry County Line to Randall Road. The study developed a conceptual improvement plan which, when implemented, will improve transportation mobility along the corridor. The study is considered a “pre-Phase I” study, since it may be a number of years before the SRA improvements can be realized. Before constructing these improvements, detailed Phase I engineering and environmental studies as well as Phase II design activities must still be completed. The concept plan is primarily intended to serve as a guide for land use and access

decisions that will be made along the route between now and when an SRA improvement could actually be constructed. It is hoped that the long-range SRA plan for this route will be used by local agencies in their land use planning activities. Only with the support of the communities through which the U.S. Route 20 corridor passes through can the ultimate improvement plan be realized.

The U.S. Route 20 SRA corridor was divided into six segments for the purposes of this study. Following is a summary of the major improvement recommendations within each segment.

Segment 1: Boone/McHenry County Line to Meyer Road

- Widen U.S. Route 20 to provide two 12-foot travel lanes in each direction separated by a 42-foot open ditch median.
- Provide 6-foot inside and 10-foot outside shoulders with an open drainage system.
- Acquire 0 to 47 feet of additional right-of-way along each side of U.S. Route 20.
- Consolidate access to designated channelized intersections and restrict all other driveways to right-in/right-out.
- Signal coordination is recommended.

Segment 2: Meyer Road to Shady Lane

- The recommended Concept Improvement Plan and Access Control Plan for this segment will be determined upon completion of a Marengo Bypass Study to be conducted separately.

Segment 3: Shady Lane to Harmony Road

- Widen U.S. Route 20 to provide two 12-foot travel lanes in each direction separated by a 42 foot open ditch median.
- Provide 6-foot inside and 10-foot outside shoulders with an open drainage system.
- Acquire 20 to 80 feet of right-of-way on the north side and 0 to 54 feet on the south side of U.S. Route 20.
- Consolidate access to designated channelized intersections and restrict all other driveways to right-in/right-out. U-TURN movements will be permitted for passenger vehicles and small trucks at signalized intersections.
- Signal coordination is recommended.

Segment 4: Harmony Road to Interstate 90

- Widen U.S. Route 20 to provide two 12-foot travel lanes in each direction separated by an 18-foot wide barrier median
- Provide 10-foot wide shoulders with an open drainage system.
- Acquire 0 to 27 feet of right-of-way on the north side and 0 to 54 feet on the south side of U.S. Route 20.
- Consolidate access to designated channelized intersection and restrict all other driveways to right-in/right-out.

- Re-align the signalized I-90 access roadway further southeast along U.S. 20.
- Side street improvements are recommended at specific locations.
- Signal coordination is recommended.

Segment 5: Interstate 90 to Illinois Route 47

- Widen U.S. Route 20 to provide two 12-foot travel lanes in each direction separated by a 42 foot open ditch median.
- Provide 8-foot inside and 10-foot outside shoulders with an open drainage system.
- Acquire 0 to 60 feet of right-of-way on the north side and 0 to 47 feet on the south side of U.S. Route 20.
- Re-align Brier Hill Road at Big Timber Road just north of U.S. Route 20 to improve operational safety.
- Re-align Allen Road at U.S. Route 20 to form a "T" intersection and improve operational safety.
- Create overpass for re-alignment of U.S. Route 20 over the I & M Rail Link to the existing IL Route 72 alignment.
- Consolidate access to designated channelized intersections and restrict all other driveways to right-in/right-out. U-TURN movements will be permitted for passenger vehicles and small trucks at signalized intersections.
- Signal coordination is recommended.

Segment 6: Illinois Route 47 to Randall Road

- Widen U.S. Route 20 to provide two 12-foot travel lanes in each direction separated by a 42 foot open ditch median west of Plank Road.
- East of Plank Road, provide two 12-foot travel lanes in each direction separated by a barrier median with curb and gutter.
- Acquire 0 to 60 feet of right-of-way on the north side and 0 to 50 feet on the south side of U.S. Route 20.
- Extend U.S. Route 20 directly from Marshall Road to Switzer Road to improve roadway operations in the Village of Pingree Grove. Requires 160 feet of right-of-way acquisition.
- Partial access permitting only left-in/right-in/right-out movements at Weld Road.
- Consolidate access to designated channelized intersections and restrict all other driveways to right-in/right-out. U-TURN movements will be permitted for passenger vehicles and small trucks at signalized intersections between IL Route 47 and Plank Road.
- Signal coordination is recommended.

I. Introduction

1.1 Transportation Perspectives

The transportation systems in the Chicago region have evolved around historic land use development patterns. Reflecting first the original rural travel needs and then the early suburban development patterns, the principal arterial highways, commuter rail lines and the early expressways developed in a radial pattern emanating from the City of Chicago. These transportation systems efficiently served the traditional suburb-to-city commuting patterns.

Since the early 1970's , however, development patterns have changed dramatically as a result of the migration of people and employment from the City of Chicago. According to the Northeastern Illinois Planning Commission (NIPC), between 1970 and 1990 the population of the six-county region increased by only 4% but the urbanized area increased by approximately 70%. This rapid decentralization brought with it dramatically different travel demands. While the traditional suburb-to-city travel demand remained strong, tremendous growth occurred in city-to-suburb and suburb-to-suburb travel. The radial design of the region's transportation systems was inadequate to accommodate the shift to decentralized travel patterns.

Despite significant investments in transportation improvements over the last two decades to address the new travel patterns, the rapid growth in demand has overwhelmed the capacity of much of the highway network, resulting in increased congestion and delay. Travel delays have caused long-distance commuting trips to spill over from the expressway and principal arterial street systems onto minor arterial, collector and even local streets while seeking to avoid congestion.

The task of improving highways to accommodate expanding travel demand has become increasingly difficult in recent years. Compounding the difficulty of improving arterial highways, is the fact that adjacent development occurs many years before a roadway can be expanded. Oftentimes, the development that has occurred conflicts with the expansion requirements for the highway. Thus, when expansion finally does occur, quite often it cannot be done without significant impact and/or cost.

Regional population and employment forecasts imply that even more difficult challenges lie ahead. NIPC has estimated that the region's population will increase as much as 24% between 1990 and 2020 (four times the regional growth rate experienced between 1970 and 1990). Regional employment is expected to increase by as much as 37 percent over the same period. Based on these predictions, the Chicago Area Transportation Study (CATS) has predicted a 28 to 34 percent increase in daily auto trips along with a 32 to 34 percent increase in transit trips. Vehicle miles of travel (VMT) on the arterial street system alone is expected to increase between 50 and 70% over the 1990 level. If even

only a portion of the forecast growth occurs, significant improvements to the capacity and/or efficiency of the expressway and arterial street systems must occur to prevent further incursions of long-distance trips into portions of the street network where they do not belong.

The Illinois Department of Transportation along with regional planning agencies has recognized that the ability to expand the expressway system to meet long-distance travel needs is severely limited. The decentralized travel patterns also limit the ability of mass transit to efficiently serve this demand. Thus, improving mobility on the existing arterial street system represents the most feasible and cost effective strategy to accommodate existing as well as future mobility needs. In order to serve this travel demand on arterial streets, a comprehensive network of roadways would have to be developed that are modified to emphasize mobility while still recognizing land access needs. This modified arterial street system has been designated the Strategic Regional Arterial (SRA) street network.

1.2 The Strategic Regional Arterial System

The Strategic Regional Arterial system is a 1,390-mile network of existing roads in Northeastern Illinois. The system includes 68 routes in Cook, DuPage, Kane, Kendall, Lake, McHenry and Will Counties (see Figure 1.1). Creation of the SRA system is a major component of Operation GreenLight, an eight-point plan to deal with urban congestion and improve regional mobility. The plan was developed by IDOT in cooperation with the Illinois State Toll Highway Authority (ISTHA), CATS, NIPC and the Regional Transportation Authority (RTA). The SRA system, which was designated as part of the 2020 Transportation System Development (TSD) Plan adopted by regional planning agencies, is intended to supplement the existing and proposed expressway facilities by accommodating a significant portion of long-distance, high volume automobile and commercial vehicle traffic in the region.

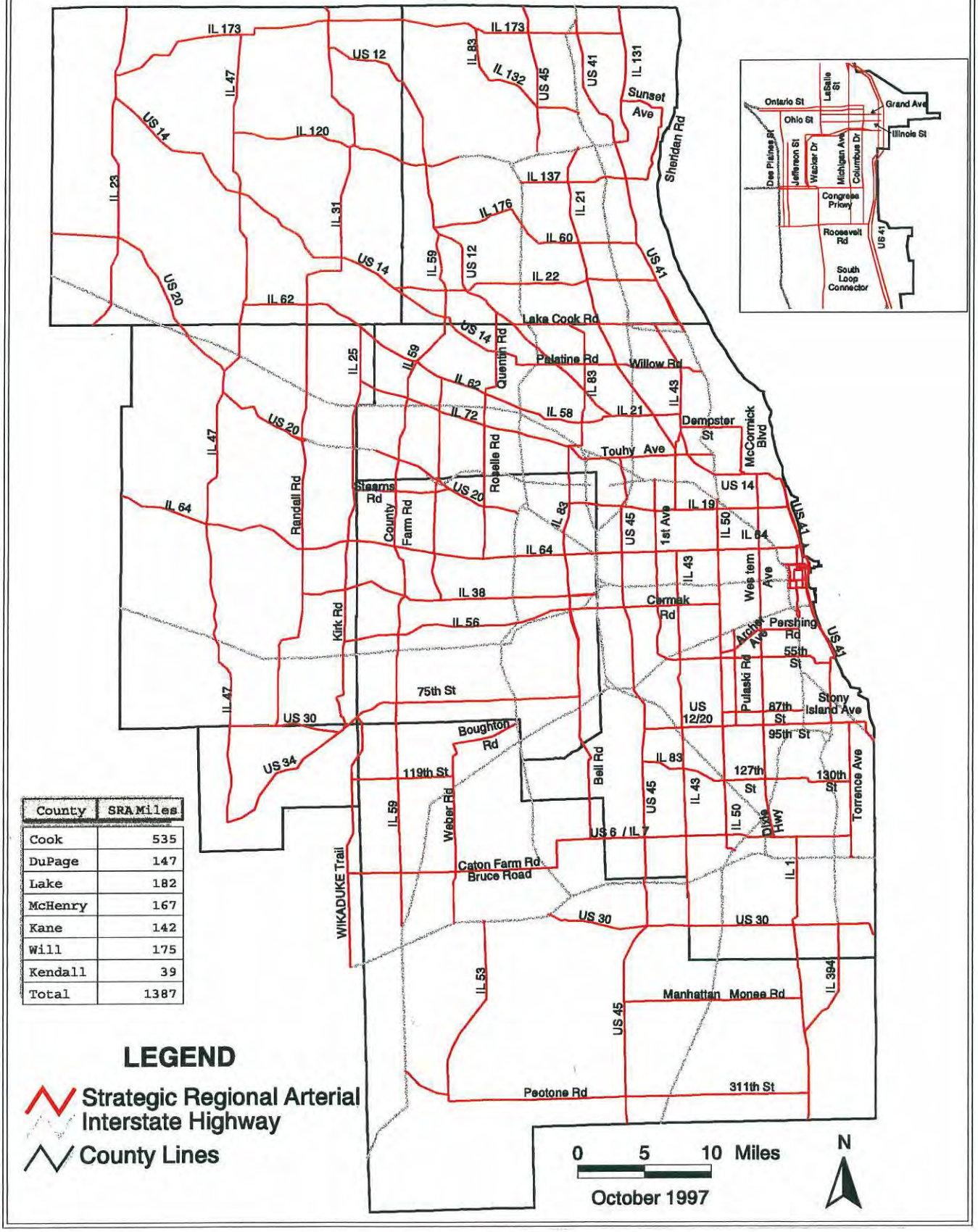
Implementation of the SRA concepts and proposals will provide significant benefits to the region as a whole as well as to each of the communities through which SRA routes pass. A coordinated system of routes designed to provide high mobility will attract a large percentage of the vehicular travel demand, thereby protecting lower tiered streets from unwanted traffic. This will help to maintain or improve traffic safety and operation as well as the quality of life in many neighborhoods adjacent to these facilities.

1.3 SRA Route Types and Improvement Techniques

Within the SRA network there are significant differences in the roadway environment. These differences affect how routes will function in the system. Three different types of SRA routes have been designated to correspond to three types of roadway environment:

- Urban Routes
- Suburban Routes
- Rural Routes

2020 Strategic Regional Arterial System



County	SRA Miles
Cook	535
DuPage	147
Lake	182
McHenry	167
Kane	142
Will	175
Kendall	39
Total	1387

LEGEND

Strategic Regional Arterial
Interstate Highway
County Lines

The Strategic Regional Arterial System
Figure 1.1

SRA routes located in densely urbanized areas typically are existing routes with minimal possibilities for roadway expansion. Possible techniques for improving mobility on urban routes could include:

- Improve intersections by adding auxiliary lanes or lengthening storage bays.
- Coordinate traffic signals.
- Prohibit on-street parking or restrict parking during peak hours.
- Install barrier medians to concentrate left turns at protected locations.
- Relocate bus stops to far-side intersection locations.
- Install bus traffic signal preemption systems.
- Improve structural clearances.

SRA routes located in suburban areas typically are existing routes that may have wider rights-of-way and/or larger building setbacks than urban routes. Thus, expansion may be feasible. Possible techniques for improving mobility on suburban routes could include:

- Construct additional travel lanes.
- Construct new roadway connections to improve route continuity.
- Expand critical intersections by adding auxiliary lanes, lengthening storage bays, or constructing grade separations.
- Coordinate traffic signals and limit the number of new signals.
- Install barrier medians to concentrate left turns at protected locations.
- Consolidate local access drives.
- Install bus traffic signal preemption systems.
- Construct Park and Ride or Park and Pool facilities.
- Improve structural clearances.

In rural areas, access control and right-of-way preservation are the two most important techniques to provide for movement of through traffic and accommodate future needs. Other improvement techniques could include:

- Construct additional travel lanes.
- Construct new roadway connections to improve route continuity.
- Construct bypass roadways around restricted town centers.
- Expand critical intersections by adding auxiliary lanes, lengthening storage bays, or constructing grade separations.
- Install barrier medians to control access and concentrate left turns at protected locations.
- Consolidate local access drives.
- Improve structural clearances.

A full description of the recommended designs and features applicable to all SRA routes, and techniques for special circumstances can be found in the Strategic Regional Arterial Design Concept Report, dated February, 1994 available from IDOT and CATS.

The U.S. Route 20 corridor is classified as a rural SRA route in southwest McHenry County and northern Kane County. Table 1.1 indicates the desirable route characteristics for a rural SRA facility. These desirable characteristics served as a guide for the development of the conceptual improvement plan that is presented in Section 3 of this report.

1.4 Study Objectives

As an SRA route, U.S. Route 20 is intended to function as part of a regional arterial system, carrying high volumes of long-distance traffic in conjunction with other SRA routes and the regional expressway and transit systems. To implement the SRA system, development of a comprehensive, long-range plan for the entire network is necessary. The planning process for the SRA system is being accomplished in five parts or subsets. Work on the first four subsets has been completed or is nearly complete. U.S. Route 20 is included in the fifth subset of SRA routes.

The U.S. Route 20 SRA study is considered a "pre-Phase I" study, since it may be a number of years before the SRA improvements are actually constructed. As a pre-Phase I study, a conceptual improvement plan is developed that is based on limited engineering and environmental investigations. The plan is primarily intended to serve as a guide for land use and access decisions that may be made along the route between now and when an SRA improvement could actually be constructed. Before constructing an SRA improvement, detailed Phase I engineering and environmental studies as well as engineering design activities (Phase II) must still be completed. Completion of these detailed studies may result in refinements of or alterations to the original SRA concept plan.

The U.S. Route 20 SRA study identifies both short-range and long-range improvements to enable the route to function as part of the SRA system. The following objectives have guided the study process:

- Determine the types of roadway improvements needed for each route including additional lanes, signalization, and intersection improvements.
- Define future right-of-way requirements.
- Enhance access to the regional transit system.
- Develop an access management plan to improve through-traffic flow and reduce conflicts.
- Coordinate recommended route improvements with projected development.
- Identify necessary improvements to accommodate commercial traffic.
- Accommodate necessary bicycle and pedestrian travel.
- Identify potential environmental concerns.

The completed study can be used by local and State agencies to help guide implementation of improvements on or along U.S. Route 20. In doing so, the development of individual public or private sector projects can be consistent with the coordinated long-range development plan for the route. The development of local land use plans which recognize the recommendations for SRA routes is encouraged. Only with the support of the communities through which U.S. Route 20 passes can the ultimate improvement plan be realized.

Table 1.1
2010 Desirable Route Characteristics
Rural Strategic Regional Arterials

Right-of-Way Width	188' - 284' (w/ frontage roads)
Level of Service (Peak Hour)/Design Speed	C / 60 mph
Number of Through Lanes	2 in each direction: 12' width; with provision for future expansion to 6 total lanes.
Median Width	50' - 74'
Right Turns	Turn lanes at major cross streets
Left Turns	Turn lanes at all intersections
Shoulders	10' right paved; 6' left paved
Curbs	No
Sidewalks	If needed, along outside of frontage roads
Bicycle Accommodation	Paved Shoulder (minimum 6')
Parking	No
Cross Street Intersections	Permitted. Stop sign control for cross street. Crossovers permitted at 1/2 mile spacing until frontage roads are constructed.
Curb Cut Access	Protect right-of-way for past-2010 construction of two-way frontage roads.* Right-in/right-out until frontage roads are constructed.
Transit	Bus pull-off and shelter. Express bus service and signal pre-emption potential
Number of Traffic Signals Per Mile	2, signals spaced 1/2 mile apart until frontage roads are constructed.
Signalization	Fully-actuated
Freight: Radii	WB 60; Standard
Vertical Clearance	New Structures: 16' - 3" Existing Structures: 14' - 6"
Railroads	Consider a grade separation at all railroads
Loading	Off-street loading

* unless criteria and conditions of Section 6.3 of the SRA Design Concept Report (1994) are met.

1.5 The SRA Planning Study Process

The SRA planning study process is accomplished through six phases:

Data Collection/Evaluation - The SRA study process is designed to efficiently use available data for each route. The data is assembled from right-of-way information, roadway plans, traffic volume counts, transit information, bicycle usage, adjacent development characteristics, accident data, and environmental inventories. The data is reviewed to establish current conditions, constraints, and improvement needs.

Route Analysis - Possible improvements for the SRA route are determined by incorporating the recommended design features and, where necessary, accommodating local conditions or constraints. Improvements are identified as recommended, short-term/low-cost or Ultimate (post 2020).

Environmental Issues/Screening - The SRA study involves a screening process which identifies notable, important or sensitive environmental resources, areas, or systems along each route. The SRA planning process does not include detailed environmental assessments or analysis of specific mitigation measures. The results of the screening process are used to evaluate improvement alternatives and serve as an early indicator of environmental issues for future studies and design.

Cost Estimates/Identification of Right-Of-Way Needs - A cost estimate is prepared for each segment of the route. Right-of-way needs to accommodate the improvements are also identified.

Local Involvement and Coordination - Throughout the SRA route planning process, the involvement of local and regional agencies is an important consideration. Coordination efforts include conducting initial interviews with each community along the route to identify attitudes and concerns; and forming Advisory Panels for each SRA route which work with IDOT during the planning process. Meetings with each Panel inform members about the SRA program and ongoing route studies. A public hearing in an open house format is also conducted in each county along the route.

Final Route Improvement Plan/Report - As the final step in the planning process, a report for each SRA route documents the recommended improvements and findings.

1.6 Study Data Sources and Methodologies

Existing Roadway Characteristics - Several data sources were compiled to create route inventories. Traffic counts for the route segments and for selected major intersections were obtained from IDOT Traffic Volume Maps. The route was videotaped from a helicopter. On-site inspection confirmed IDOT scoping data for number of lanes, location of traffic signals and turn bays, structures, setbacks, pavement width, speed limits, existence of sidewalks, frontage roads and median. Pavement widths and right-of-way limits were further confirmed with construction plan sheets whenever possible.

Existing Transit Characteristics - Data on existing transit service and facilities was obtained from published data and reports as well as limited field verification of location and characteristics of transit facilities. Basic information on transit services in the SRA study area, including routes and schedules, was obtained by reports from operating entities, including Pace, Metra and the CTA, which provided information on transit ridership and other operating characteristics. Location of transit facilities, including bus stops and facilities at commuter rail and rapid transit stations, were verified in the field. In addition, CATS and NIPC provided the 2020 TSD Plan which was used to define other planned and proposed transit improvements throughout the corridor.

Land Use/Development Characteristics - Development characteristics include existing and planned uses. Current uses were included in the route inventory and derived from NIPC aerial photography, video and on-site inspection. These uses were identified in some detail and later grouped into more general development categories, such as residential, commercial, industrial, public and semi-public. Access was examined in the course of this analysis.

Planned uses were identified in response to a specific inquiry at the beginning of the SRA study, within adopted Comprehensive and/or specific plans identified by municipal and county officials, and during meetings with municipal and county officials. Such information was used to assess potential route impact and plan for access.

Environmental Considerations - Because the purpose of the analysis was to identify those conditions and uses which *may* be negatively impacted by improvement of the SRA, the selection of data was as inclusive as possible. Numerous public and private entities were contacted to determine the locations of wetlands, natural areas and parks, threatened or endangered species, flood plains, prime farmland, historic structures and archaeological sites, hazardous waste sites or those with leaking underground storage tanks, as well as land uses which are sensitive to the effects of highway construction or changes in air quality and ambient noise levels. The approximate locations of all environmental resources and sensitive receptors are shown on aerial photographs contained in this report. However, no representation is made regarding the accuracy of the information received from governmental agencies with respect to chemical releases, wetland limits, or endangered species habitat since no field verification of such sites was carried out. Such determinations are aspects of detailed Phase I studies.

Year 2010 Traffic Demand Projections - The Chicago Area Transportation Study projected Year 2010 traffic volumes for all routes in the SRA system and for tollways and expressways. Projections made for the SRA system are different from those made for most projects because they assume that all routes in the system have been improved as suggested in the design criteria for the system. This assumption ensures that no route or part of a route would be expected to handle more than its share of the expected 2010 traffic volumes which may be traveling in that general direction. It also ensures that no part or segment of a route would be improved more than is necessary to provide a consistent level of service throughout the route.

The projection methodology for SRA routes included four phases: trip generation, trip distribution, trip mode and trip assignment. Collectively, the number of vehicle trips was projected for each SRA to SRA and SRA to expressway junction. Results are expressed in ranges corresponding to the number of lanes of capacity required to serve the demand.

Cost Estimates - The cost estimates, an opinion of probable costs, were developed to give IDOT and other agencies involved an idea of the investment necessary for the SRA routes. Cost estimates were developed for two types of improvements: recommended and short term/low cost. The costs are summarized in six categories per corridor segment. These categories are Roadway, Intersection Improvements, Structure Modifications, Interchange Improvements, Transit Improvements and Right-of-Way Acquisition. The planning level cost estimates were defined by using historical figures from IDOT. Cost estimates include a standardized factor for land value added to construction cost estimates typical for the improvement type. The estimates are provided in 1991 dollars to provide consistency with previous SRA reports.

1.7 Organization of the Report

The SRA corridor report for U.S. Route 20 is divided into four sections for each route:

I. Introduction - Provides information about the SRA system and Operation GreenLight, SRA route types, desirable route characteristics, study objectives and process, and the organization of the report.

II. Route Overview - Presents a general description of the existing route characteristics, and type of recommended improvements for the overall route.

III. Route Analysis - Presents a detailed analysis of existing route characteristics and recommended route improvements. This section is organized by the following route segments:

- Segment 1: Boone/McHenry County Line to Meyer Road
- Segment 2: Meyer Road to Shady Lane
- Segment 3: Shady Lane to Harmony Road
- Segment 4: Harmony Road to Interstate 90
- Segment 5: Interstate 90 to Illinois Route 47
- Segment 6: Illinois Route 47 to Randall Road

For each route segment the following analyses are presented:

Existing Facility Characteristics - The existing facility characteristics are defined. Current traffic volumes are listed. Existing right-of-way, number of lanes, pavement widths, location of existing traffic signals, existing transit usage and routes, location of structures, and other appropriate existing facility characteristics are discussed and shown on the corresponding aerial base maps.

Land Use and Environmental Conditions - Environmental characteristics of the route segment are defined. Existing streams, wetlands, and flood plains; historic properties and districts; flora and fauna; sensitive land uses; and other environmental characteristics are discussed and shown on the corresponding aerial base maps.

The existing and projected development characteristics of the route segment are analyzed. Jurisdictional boundaries are defined. Existing land use characteristics are examined with respect to the type, density or intensity of use. Setbacks and access locations are identified. Future development potential is examined by identification of vacant land, planned or likely redevelopment and other planned development in the vicinity. Finally, public and institutional areas are identified by location and type. The existing and projected development characteristics are shown on corresponding aerial base maps.

Recommended Plan - The recommended improvements are identified for each route segment. In addition, where appropriate, ultimate (post 2020) and low-cost improvements are specified in the categories of roadway, intersection, traffic signalization, access management, transit and other relevant areas. Right-of-way requirements for the implementation of the recommended improvements are identified. Potential environmental considerations of the implementation of the recommended improvements are identified. Cost estimates relating to construction for the recommended improvements and acquisition of right-of-way are given.

IV. Public Involvement - Summarizes the public involvement process during the study including individual community interviews, SRA Panel meetings, public hearings and other efforts to promote local involvement in the study process.

II. Route Overview

2.1 The U.S. Route 20 Study Area

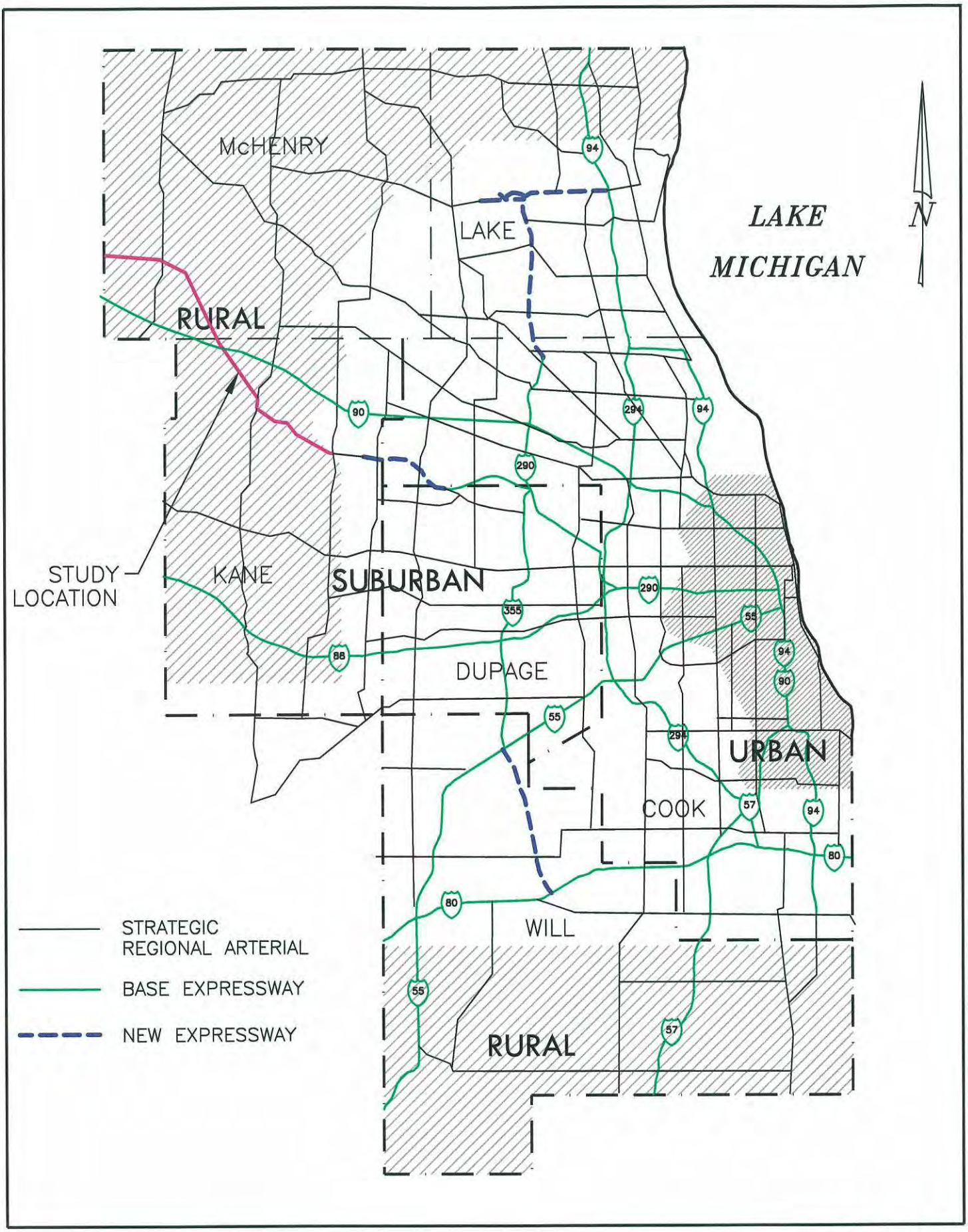
The SRA corridor extends along U.S. Route 20 from the Boone/McHenry County Line continuing east to Randall Road. This rural SRA route passes through the communities of Marengo, Hampshire, Pingree Grove, and Elgin for a total length of 27.5 miles. A location map is shown on Figure 2.1.

2.2 Land Use/Development Characteristics

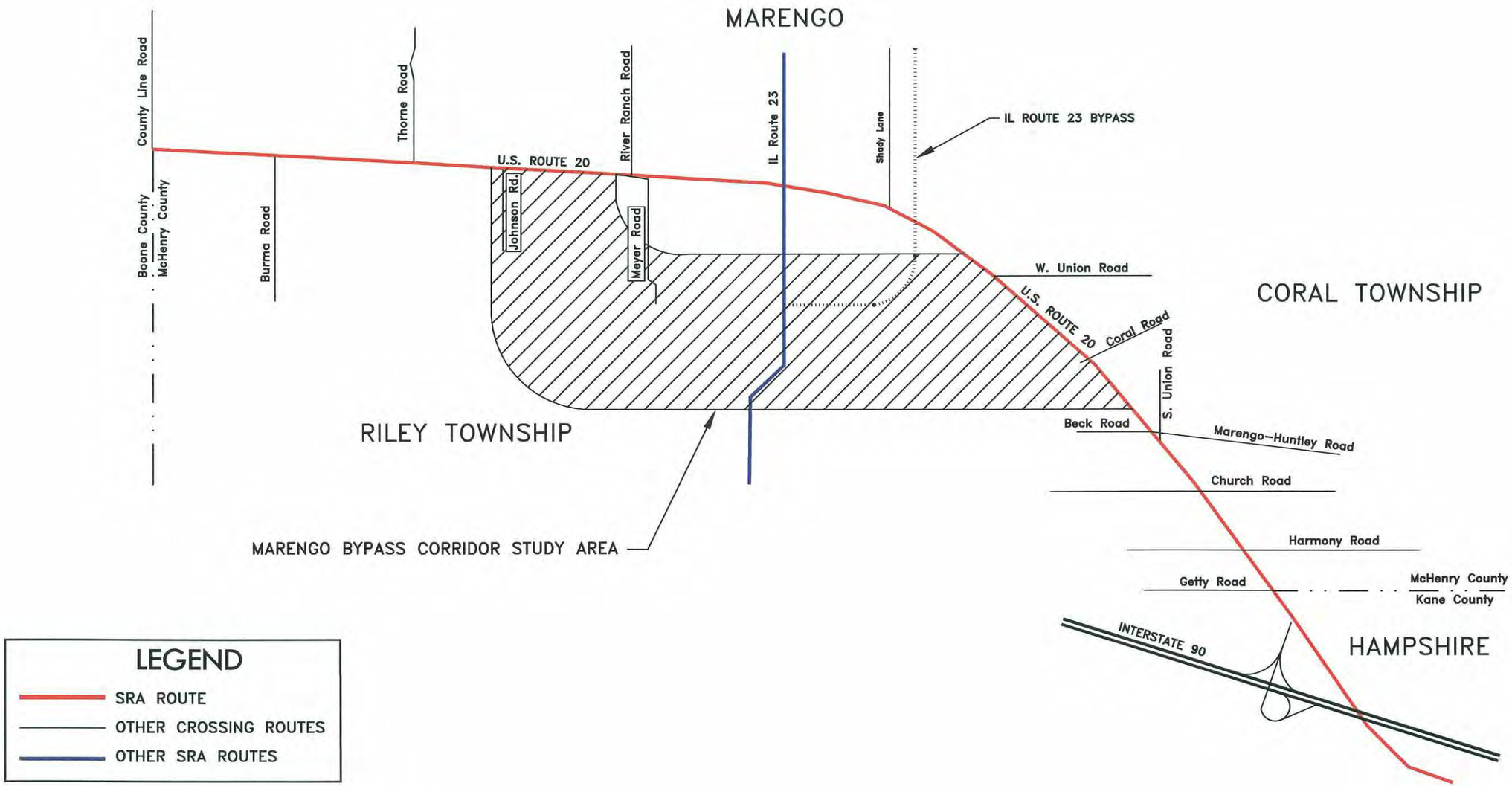
The U.S. Route 20 SRA corridor includes a wide range of land use types throughout the area. Residential, industrial, commercial, institutional, recreational and office land uses are scattered along the route. However, the primary land use along U.S. Route 20 is agricultural.

2.3 Regional Transportation Facilities

The Corridor Maps which depict major transportation facilities and crossing SRA routes are shown on Figures 2.2 and 2.3 for the McHenry County and Kane County sections, respectively. U.S. Route 20 intersects the SRA routes of Illinois Route 23, Illinois Route 47, and Randall Road. The expressway that crosses the route and provides full access is Interstate 90.



U.S. ROUTE 20
LOCATION MAP
FIGURE 2.1



Illinois Department of Transportation

SRA Strategic Regional Arterial Planning Study

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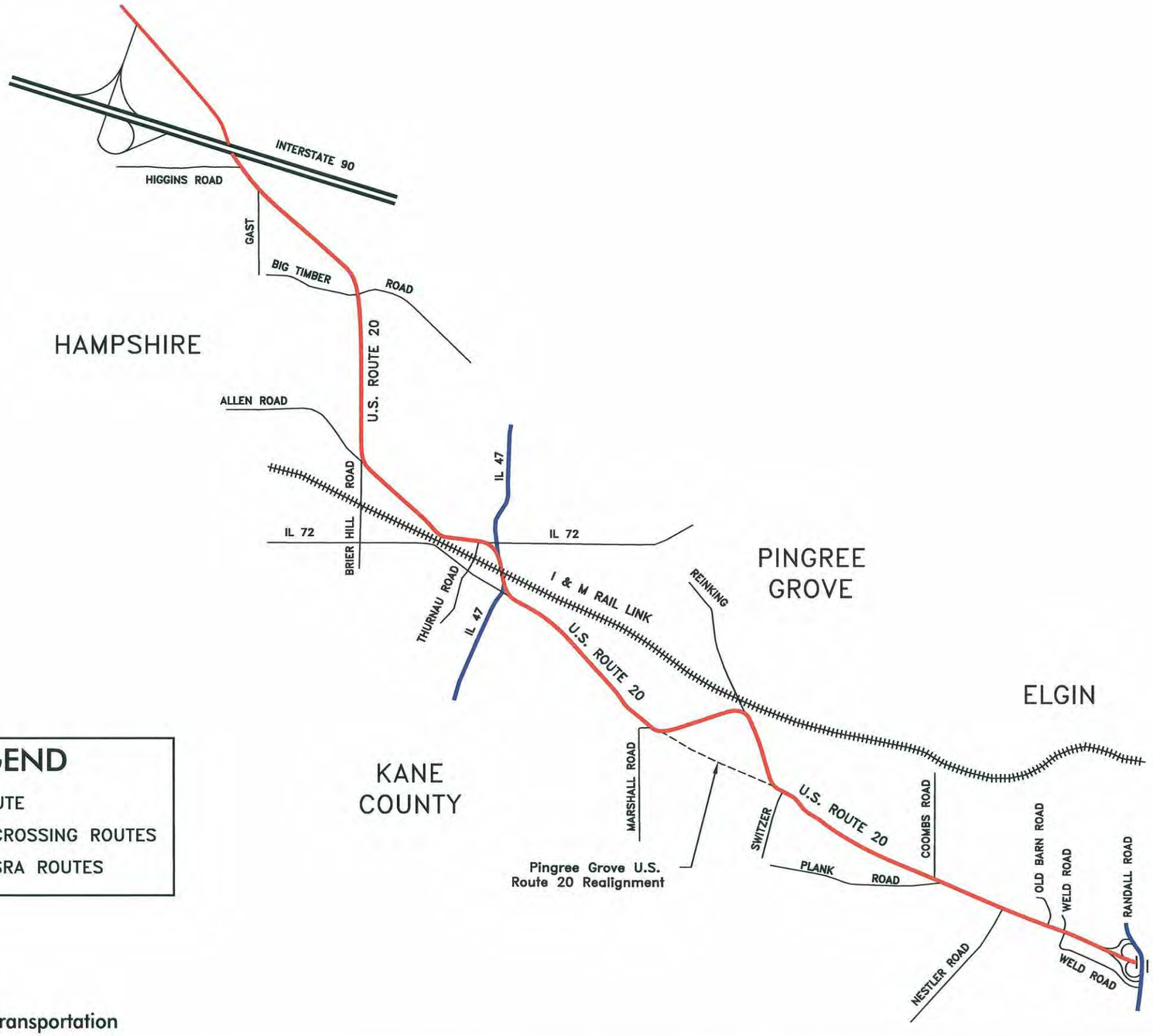
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources, Inc.

U.S. ROUTE 20
CORRIDOR MAP
FIGURE 2.2



LEGEND

- SRA ROUTE
- OTHER CROSSING ROUTES
- OTHER SRA ROUTES

Illinois Department of Transportation

SRA Strategic Regional Arterial Planning Study

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In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources, Inc.

U.S. ROUTE 20 CORRIDOR MAP
FIGURE 2.3

2.4 Roadway/Right-of Way Characteristics

The existing roadway and right-of-way widths vary along the length of the U.S. Route 20 corridor. The majority of the U.S. Route 20 SRA has one through lane in each direction. Left turn channelization is provided at selected locations within Marengo and near the I-90 interchange. A section of U.S. Route 20, which is also designated as Illinois Route 72 and Illinois Route 47, has two travel lanes in each direction. The right-of-way for U.S. Route 20 is typically between 60 feet and 80 feet but varies up to 500 feet.

2.5 Transit

Presently, no transit facilities exist along the U.S. Route 20 corridor. Future transit plans are outlined in the Pace-Metra Future Agenda for Suburban Transportation (FAST) Plan and the Pace Comprehensive Operating Plan (COP).

Specific transit improvement recommendations are detailed for each roadway segment in the following sections of this report.

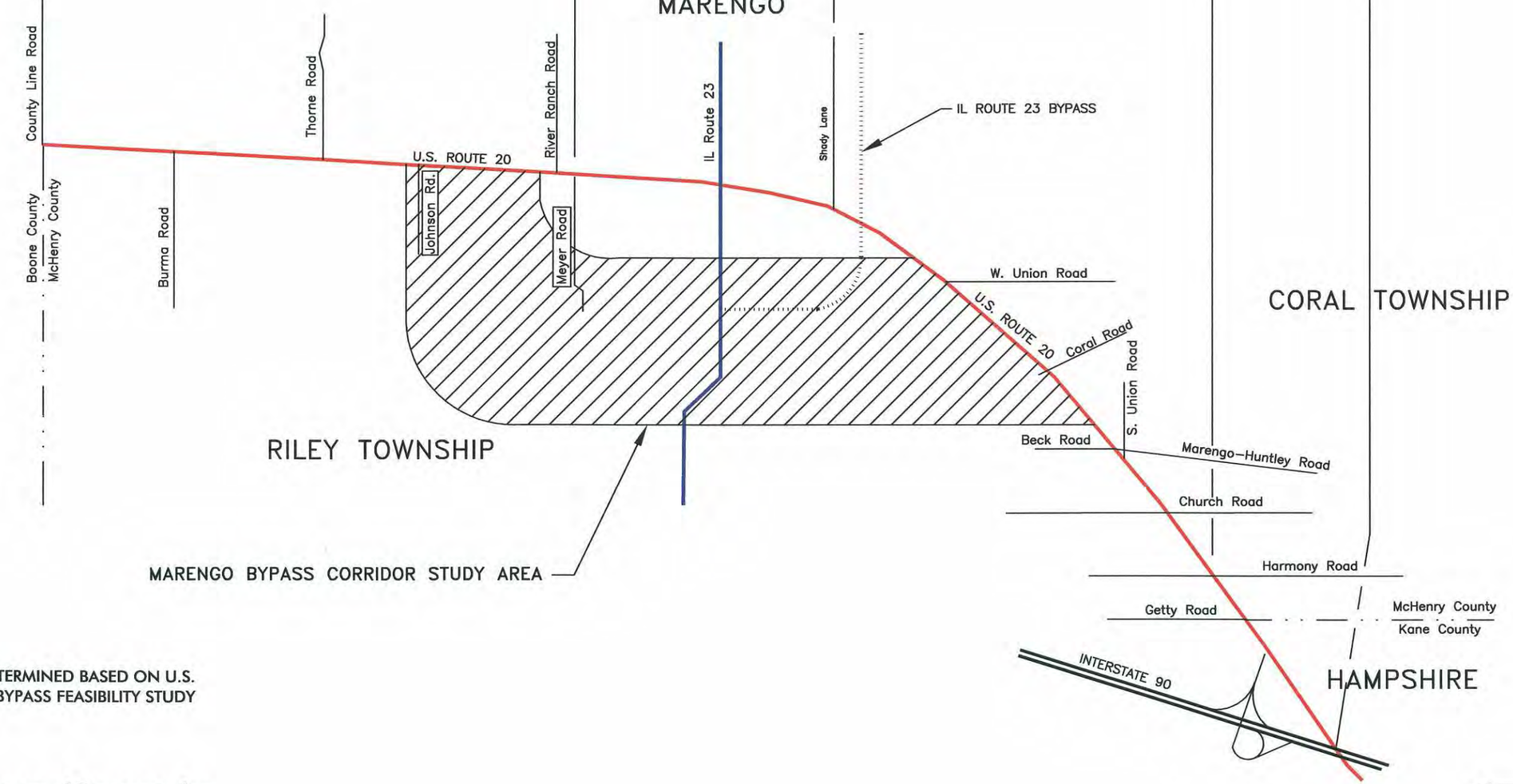
III. Route Analysis

This section provides a detailed summary of existing conditions and recommended improvements along the U.S. Route 20 portion of the SRA corridor. The corridor has been divided into six segments for the U.S. Route 20 section. The limits were chosen to provide consistency within each segment of factors such as right-of-way width, travel demand, and existing versus proposed conditions. The segments are shown on Figure 3.1 and are defined as follows:

- Segment 1: Boone/McHenry County Line to Meyer Road
- Segment 2: Meyer Road to Shady Lane
- Segment 3: Shady Lane to Harmony Road
- Segment 4: Harmony Road to Interstate 90
- Segment 5: Interstate 90 to Illinois Route 47
- Segment 6: Illinois Route 47 to Randall Road

The route analysis for each segment consisted of an evaluation of existing conditions (right-of-way, roadway characteristics, traffic and accident conditions, environmental factors, transit facilities and land use) and future travel demand. The existing constraints and future needs were then compared to the SRA Design Guidelines to identify improvement alternatives and recommended improvements that would both meet the objectives of the SRA program and be prudent and feasible for the project area. Following is a summary of the route analysis for each roadway segment.

	SEGMENT 1	SEGMENT 2	SEGMENT 3	SEGMENT 4
EXISTING R.O.W.	66'	66'–80'	33'–120'	33'–120'
PROPOSED R.O.W.	160'	*	160'	120'
EXISTING LANE CONFIGURATION	1 / 1	1 / 1	1 / 1	1 / 1
PROPOSED LANE CONFIGURATION	2 / 2	*	2 / 2	2 / 2



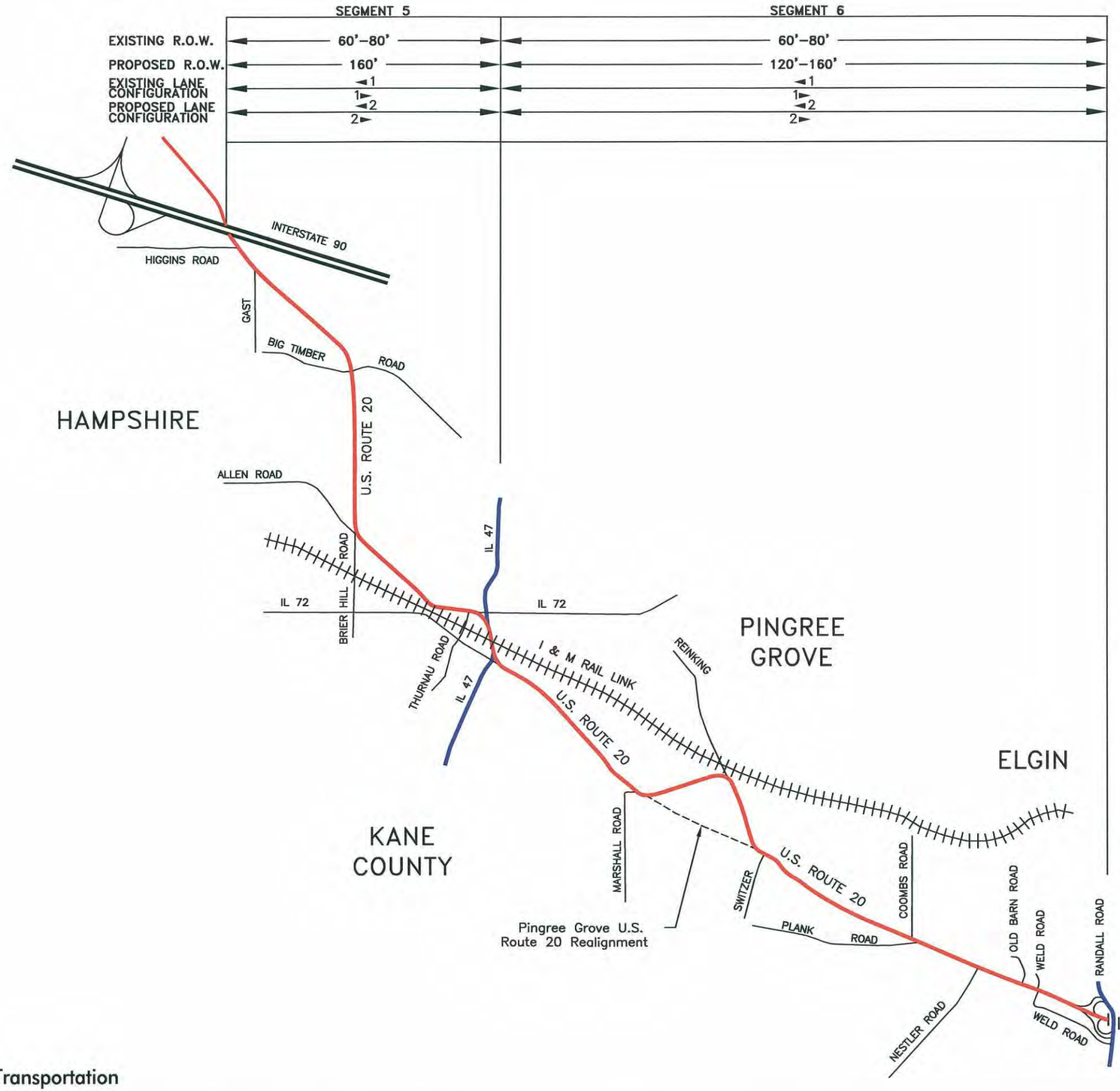
* TO BE DETERMINED BASED ON U.S. ROUTE 20 BYPASS FEASIBILITY STUDY

Illinois Department of Transportation

SRA Strategic Regional Arterial Planning Study

Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources, Inc.

U.S. ROUTE 20
CORRIDOR SUMMARY
FIGURE 3.1



Illinois Department of Transportation

SRA Strategic Regional Arterial Planning Study

U.S. ROUTE 20
CORRIDOR SUMMARY
FIGURE 3.2

Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources, Inc.

Segment 1
Boone/McHenry County Line to Meyer Road

3.1 Segment 1: Boone/McHenry County Line to Meyer Road

3.1.1 Location

Segment 1 extends along U.S. Route 20 from the Boone/McHenry County Line to Meyer Road (see Figure 3.1). The segment is approximately 3.9 miles in length and is located in unincorporated McHenry County.

3.1.2 Existing Facility Characteristics

Existing facility characteristics for this segment are shown on Exhibits A-1 through A-5.

Right-of-Way - The existing right-of-way in this segment is 66 feet.

Roadway Characteristics - The existing cross section in this segment consists of one, 12-foot travel lane in each direction with no median. A gravel shoulder with open ditch drainage is typical for this segment. Existing typical sections for this segment are included on Exhibits A-1 through A-5.

Traffic Volumes - Illinois Department of Transportation Traffic Maps indicate that for 1997 the average annual daily traffic for this segment varied from 7,900 to 8,300 vehicles per day.

Accidents - There are no high accident locations in this segment.

Parking, Sidewalks, and Frontage Roads - There are no on-street parking spaces or frontage roads on this segment. Sidewalks are not provided.

Traffic Control/Intersection Configuration - All intersecting roadways with U.S. Route 20 are controlled with a stop sign. Existing lane configurations for these intersections are shown on Exhibits A-1 through A-5.

Structures - There are no existing structures in this segment.

Transit - There are no transit facilities in this segment.

3.1.3 Existing Environmental Characteristics

The existing environmental characteristics for Segment 1 of U.S. Route 20 are shown on Exhibits B-1 through B-5.

Lakes/Streams/Wetlands/Floodplains - There are no known significant natural resources located near the existing right-of-way within Segment 1.

Structures with Historical Significance - There are no sites of documented historical significance located along this segment.

Hazardous Waste/LUST Sites - There are no hazardous waste or LUST sites documented by the Illinois Environmental Protection Agency along this segment.

Threatened or Endangered Species - There are no threatened or endangered species known to exist along this segment of the corridor, according to the Illinois Department of Natural Resources.

Prime Farmland - According to the Natural Resources Conservation Service, prime farmland abuts the right-of-way of U.S. Route 20 along the entire length of Segment 1.

3.1.4 Existing Land Use Characteristics

Existing land use characteristics for this segment are shown on Exhibits B-1 through B-5.

Type and Intensity of Development - The primary land use along Segment 1 is agriculture. The remaining land use is a combination of scattered single-family residences, the Shady Lane Farm restaurant and theater, and a cluster of industrial uses on the south side of U.S. Route 20 near Marengo.

Planned Development - The City of Marengo has planned the area between Thorne Road and Ritz Road as a combination of industrial and commercial uses. The River's Edge residential and commercial development is also planned in this area north of U.S. Route 20.

3.1.5 Recommended SRA Improvements

The recommended plan for this segment is shown on Exhibits C-1 through C-5.

Roadway - The recommendation for this segment is to widen U.S. Route 20 to provide two 12-foot travel lanes in each direction with a 42-foot open ditch median. Provide 6-foot inside shoulders (within the median) and 10-foot outside shoulders with an open drainage system.

Traffic Control/Intersection Configuration - The recommended future signals should be installed only at the locations shown and only when the signal warrants recommended for SRA routes are met. Signal warrants for SRA routes are discussed in Section 10.4.2 of the Strategic Regional Arterial Design Concept Report (1994). Traffic signal interconnection is recommended.

Access Management - Future access locations will be restricted to right-in/right-out only except where full access locations are shown.

Transit - Park and Pool lots should be implemented at major traffic generators such as schools, shopping centers, forest preserves and major employment centers.

3.1.6 Right-of-Way Requirements

Additional right-of-way will be required for this segment. The existing right-of-way is 66 feet and with the recommended roadway plan, up to 94 additional feet will be required for a total of 160 feet. The necessary right-of-way can be taken from both sides of U.S. Route 20 to lessen the impacts. See Exhibit C-1 through C-5 for right-of-way acquisition details.

3.1.7 Environmental Considerations

The right-of-way acquisition of 47 feet on both sides of U.S. Route 20, between County Line Road and Ritz Road, will result in the loss of prime agricultural land. There are no anticipated impacts to wetlands or floodplains within Segment 1.

3.1.8 Land Use Considerations

Forty-seven feet of right-of-way acquisition on both sides of U.S. Route 20 will reduce the front yards of residential, industrial and commercial uses west of Meyer Road. In addition, improvements will eliminate parking from the Shady Lane Farm and other commercial uses on the south side of U.S. Route 20. The open ditch median in Segment 1 would prevent direct left turns into uses fronting onto the SRA, except at planned full movement intersections. The location of access and setbacks associated with future development should be coordinated with SRA improvements.

3.1.9 Construction/Right-of-Way Cost Estimates

The cost estimate for Segment 1 is shown in Table 3.1.1. This construction cost estimate is based on 1991 unit prices.

3.1.10 Short Term/Low Cost Improvements

Improvements which are consistent with SRA policy, and are either low cost or implemented prior to construction of the overall SRA improvement are recommended for short term (1-5 years) implementation. There are no short term/low cost improvements for this segment.

3.1.11 Ultimate (Post 2020) Improvements

Improvements which are consistent with SRA policy for suburban or rural routes but are considered best implemented beyond the SRA planning horizon are recommended for Post 2020 consideration. There are no Ultimate (post 2020) improvements recommended for this segment.

3.1.12 Crossing SRA Routes

There are no cross SRA routes within this section of U.S. Route 20.

Table 3.1.1
Construction Cost Estimate
Segment 1 - Boone/McHenry County Line to Meyer Road

Recommended Improvements	Estimated Cost
Roadway	$7,500,000
Intersection Improvements	$1,800,000
Right-of-Way Acquisition	$3,615,000
Total - Recommended Improvements	**$12,915,000**

Note: This construction cost estimate is based on 1991 unit prices.

Segment 1
Boone/McHenry County Line to Meyer Road

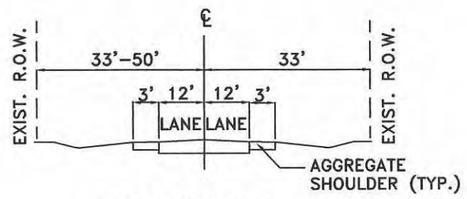
EXISTING FACILITY CHARACTERISTICS

Exhibits A-1through A-5

See Segment 2 for Exhibit A-5

EXISTING LANE CONFIGURATION	R.O.W. 33' / 33' R.O.W.	R.O.W. 33' / 33' R.O.W.	◀1 / 1▶ R.O.W. 33' / 33' R.O.W.
SIGNAL SPACING		> 6 MILES	
AVERAGE DAILY TRAFFIC		7,900	
HIGH ACCIDENT LOCATIONS			

DATE OF PHOTOGRAPHY: APRIL 14, 1995



SECTION A-A
COUNTY LINE ROAD TO PARK DRIVE

LEGEND

- SIGNALIZED INTERSECTION
- LANE ARRANGEMENTS AT KEY INTERSECTIONS
- (P) PARKING ALLOWED
- (NR) NO PARKING RESTRICTIONS
- [B] DESIGNATED BUS STOP
- [CTA] RAPID TRANSIT STATION
- [METRA] METRA STATION
- HIGH ACCIDENT LOCATION
- ◀ EXISTING NUMBER OF LANES

Illinois Department of Transportation

SRA Strategic Regional Arterial Planning Study

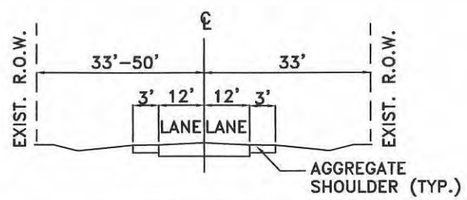
Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources Inc.

0 200 400 800
SCALE IN FEET

U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-1

EXISTING LANE CONFIGURATION	R.O.W. 33' / 33' R.O.W.	◄ 1 / 1 ►	R.O.W. 33' / 33' R.O.W.
SIGNAL SPACING		> 6.0 MILES	
AVERAGE DAILY TRAFFIC		7,900	8,100
HIGH ACCIDENT LOCATIONS			

DATE OF PHOTOGRAPHY: APRIL 14, 1995



SECTION A-A
COUNTY LINE ROAD TO PARK DRIVE

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- [METRA] METRA STATION
- HIGH ACCIDENT LOCATION
- ◄ EXISTING NUMBER OF LANES

Illinois Department of Transportation

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U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-2

EXISTING LANE CONFIGURATION

R.O.W. 33' | 1 ◄ | 1 ► | R.O.W. 33'

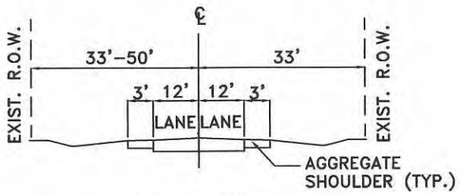
R.O.W. 33' | R.O.W. 33'

SIGNAL SPACING — > 6.0 MILES

AVERAGE DAILY TRAFFIC — 8,100 — 8,200

HIGH ACCIDENT LOCATIONS

DATE OF PHOTOGRAPHY: APRIL 14, 1995



SECTION A-A
COUNTY LINE ROAD TO PARK DRIVE

LEGEND

- SIGNALIZED INTERSECTION
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- (P) PARKING ALLOWED
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- [METRA] METRA STATION
- HIGH ACCIDENT LOCATION
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U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-3

EXISTING LANE CONFIGURATION

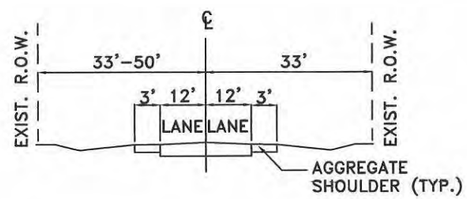
R.O.W. 33' | 1 | 1 | R.O.W. 50' | R.O.W. 50' | R.O.W. 33' | 33' R.O.W.

SIGNAL SPACING: > 6.0 MILES

AVERAGE DAILY TRAFFIC: 8,300

HIGH ACCIDENT LOCATIONS

DATE OF PHOTOGRAPHY: APRIL 14, 1995



SECTION A-A
COUNTY LINE ROAD TO PARK DRIVE

LEGEND

- SIGNALIZED INTERSECTION
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- HIGH ACCIDENT LOCATION
- EXISTING NUMBER OF LANES

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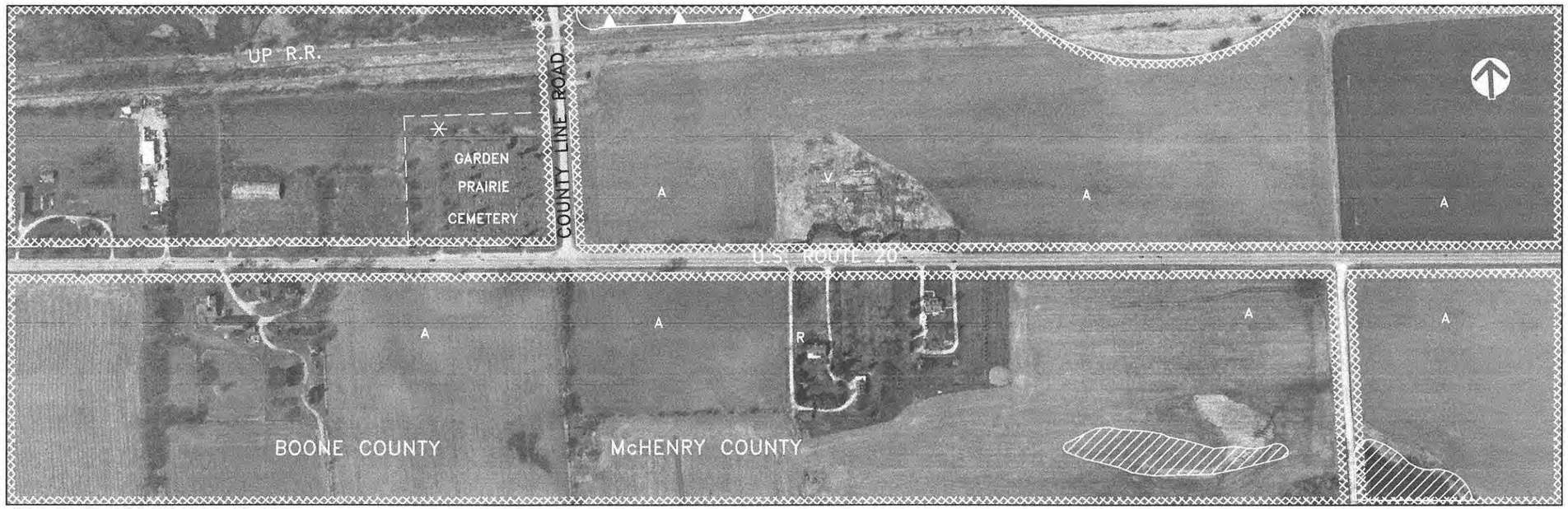
U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-4

Segment 1
Boone/McHenry County Line to Meyer Road

LAND USE AND ENVIRONMENTAL CONDITIONS

Exhibits B-1 through B-5

See Segment 2 for Exhibit B-5



DATE OF PHOTOGRAPHY: APRIL 14, 1995

ENVIRONMENTAL FACTORS LEGEND

- C1 HAZARDOUS WASTE SITE
- LEAKING UNDERGROUND STORAGE TANK
- H1 HISTORIC BUILDING/DISTRICT
- WETLAND
- THREATENED AND ENDANGERED SPECIES HABITAT
- PRIME AGRICULTURAL LAND
- FLOODPLAIN/FLOODWAY

LAND USE LEGEND

R	SINGLE-FAMILY RESIDENTIAL
RM	MULTI-FAMILY RESIDENTIAL (UP TO 3 FLOORS)
RH	HIGH RISE RESIDENTIAL (>3 FLOORS)
MH	MOBILE HOME PARK
O	OFFICE (UP TO 3 FLOORS)
OH	OFFICE HIGH RISE (>3 FLOORS)
C	COMMERCIAL RETAIL/SERVICE
CA	COMMERCIAL AGRICULTURE (NURSERY, ETC.)
CR	COMMERCIAL RECREATION (GOLF COURSE, ETC.)
I	INDUSTRIAL/WAREHOUSE
+	CHURCH/TEMPLE (NAME)
S	SCHOOL (NAME)
*	CEMETERY (NAME)
G	GOVERNMENT/INSTITUTION (FIRE, POLICE, ETC.)
P	PARK/FOREST PRESERVE (NAME)
U	UTILITY
E	EXTRACTION (MINING & GRAVEL)
A	AGRICULTURE
V	VACANT
()	PLANNED USE/JURISDICTION
----	PLANNED USE/JURISDICTION BOUNDARY
----	MUNICIPAL BOUNDARY
— —	EXISTING RIGHT OF WAY

NOTE: CATEGORY INDICATES PREDOMINANT LAND USE

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SRA Strategic Regional Arterial Planning Study

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U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-1

DATE OF PHOTOGRAPHY: APRIL 14, 1995

ENVIRONMENTAL FACTORS LEGEND

- C1 HAZARDOUS WASTE SITE
- LEAKING UNDERGROUND STORAGE TANK
- H1 HISTORIC BUILDING/DISTRICT
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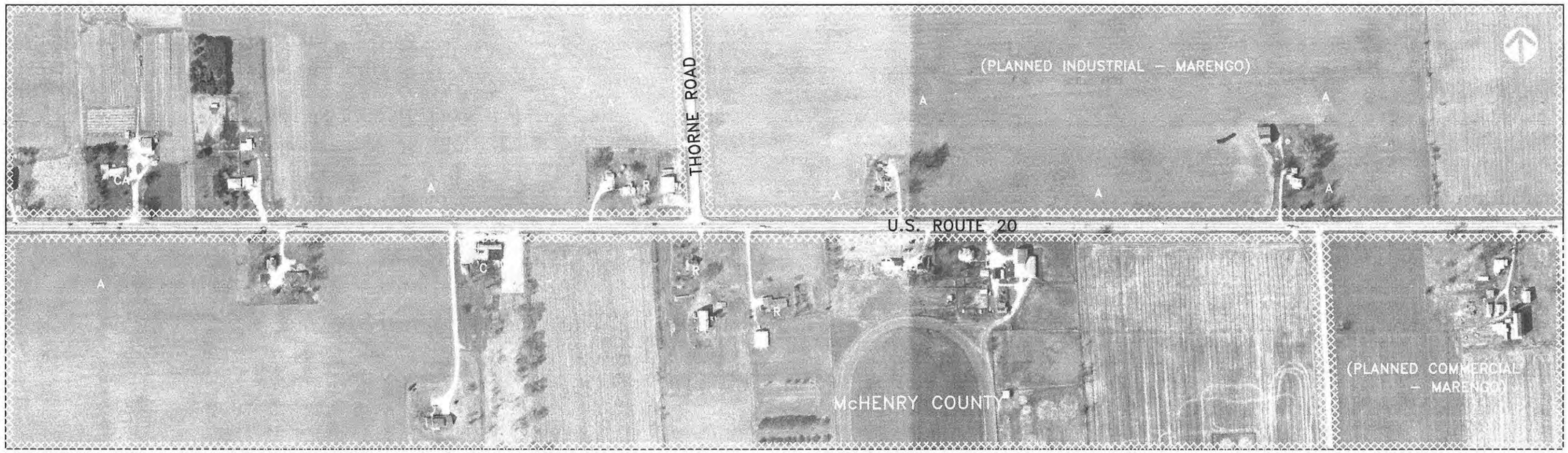
U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-2



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ENVIRONMENTAL FACTORS LEGEND

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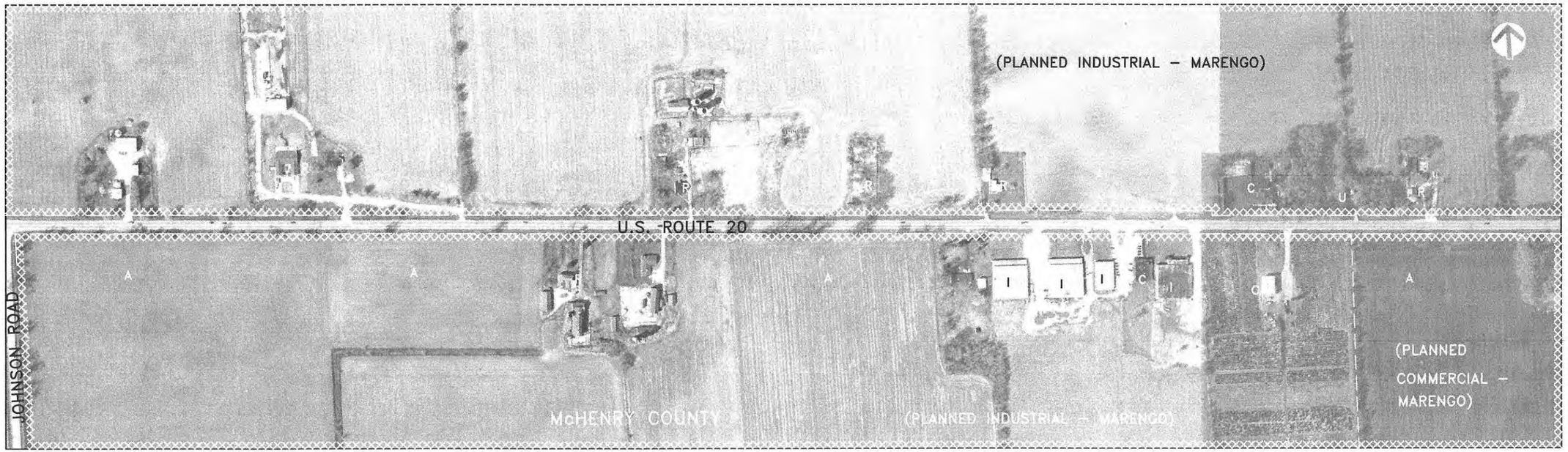
U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-3



DATE OF PHOTOGRAPHY: APRIL 14, 1995

ENVIRONMENTAL FACTORS LEGEND

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- LEAKING UNDERGROUND STORAGE TANK
- H1 HISTORIC BUILDING/DISTRICT
- WETLAND
- THREATENED AND ENDANGERED SPECIES HABITAT
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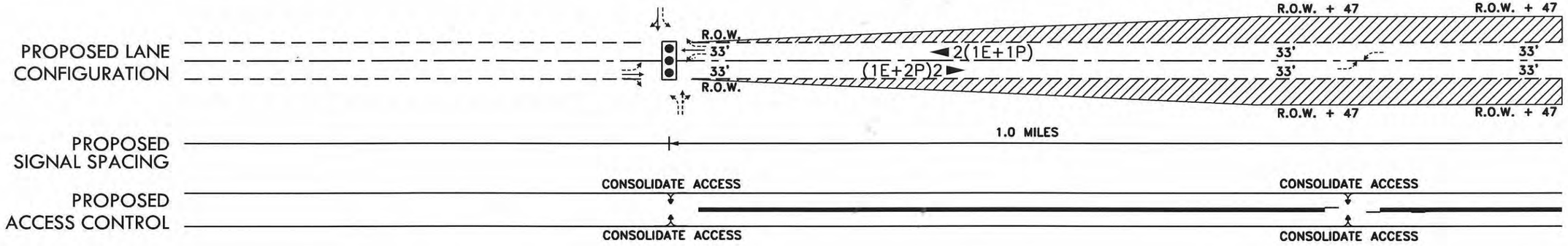
U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-4

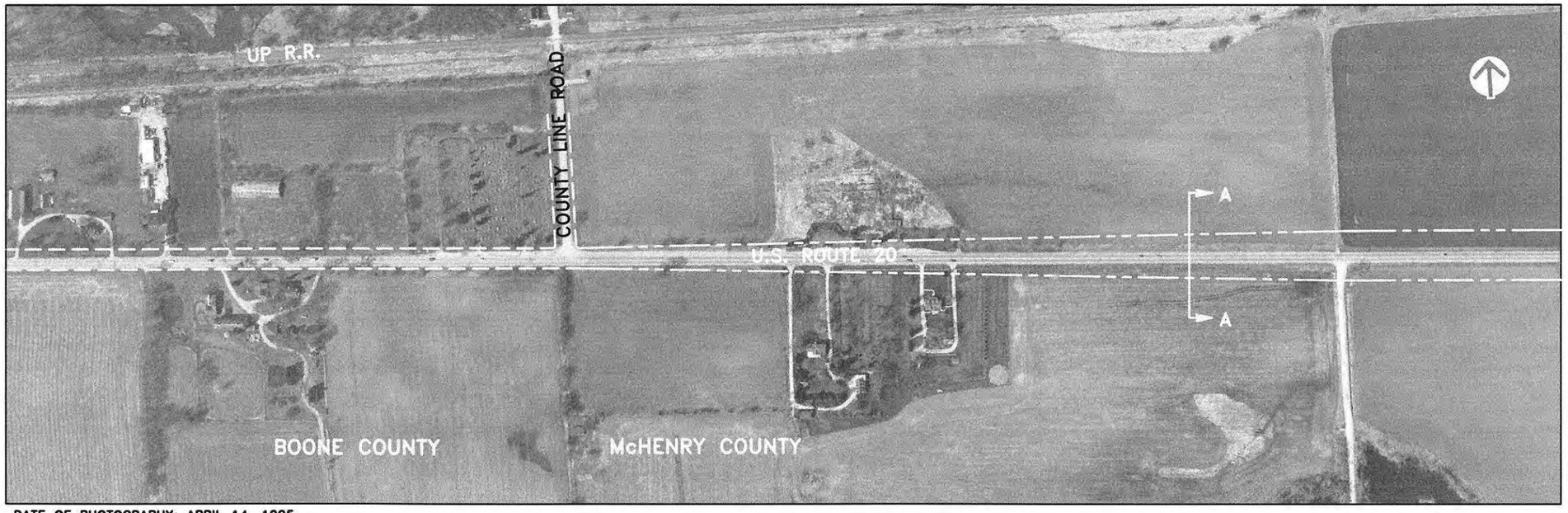
Segment 1
Boone/McHenry County Line to Meyer Road

RECOMMENDED PLAN

Exhibits C-1 through C-5

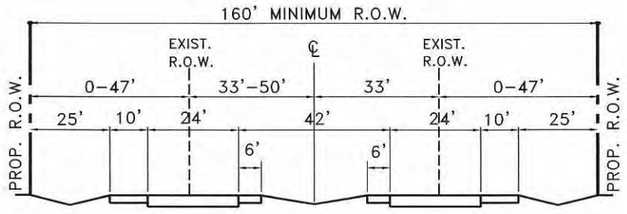
See Segment 2 for Exhibit C-5





DATE OF PHOTOGRAPHY: APRIL 14, 1995

SEGMENT 1



SECTION A-A
COUNTY LINE ROAD TO MARENGO BYPASS
RECOMMENDED CROSS SECTION

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
- PROPOSED LANE ARRANGEMENT
- EXISTING LANE ARRANGEMENT
- # PROPOSED NUMBER OF LANES
- EXISTING R.O.W. LINE
- FUTURE R.O.W. LINE
- ADDITIONAL R.O.W.
- BARRIER/GRASS MEDIAN

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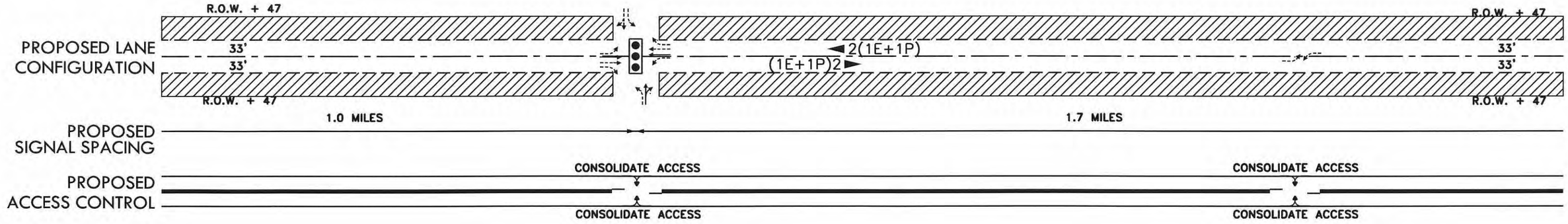
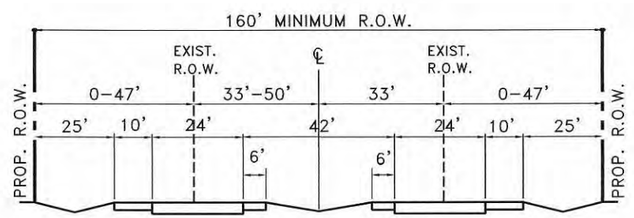
SCALE IN FEET

U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-1



DATE OF PHOTOGRAPHY: APRIL 14, 1995

SEGMENT 1



SECTION A-A
COUNTY LINE ROAD TO MARENGO BYPASS
RECOMMENDED CROSS SECTION

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
- PROPOSED LANE ARRANGEMENT
- EXISTING LANE ARRANGEMENT
- # PROPOSED NUMBER OF LANES
- EXISTING R.O.W. LINE
- FUTURE R.O.W. LINE
- ADDITIONAL R.O.W.
- BARRIER/GRASS MEDIAN

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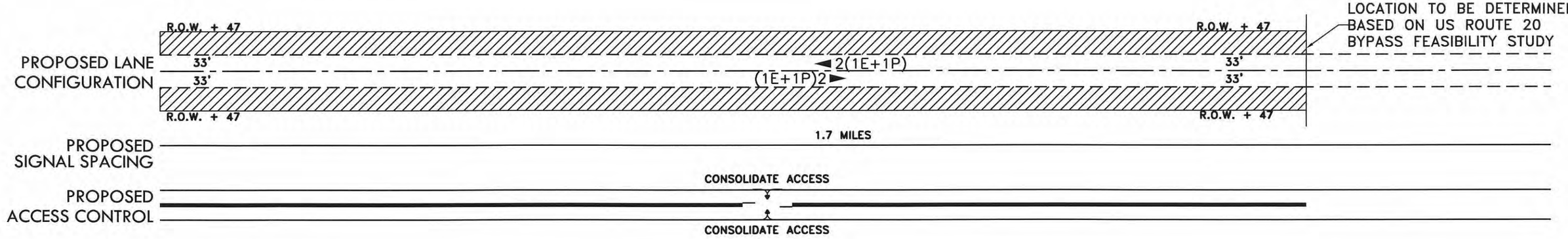
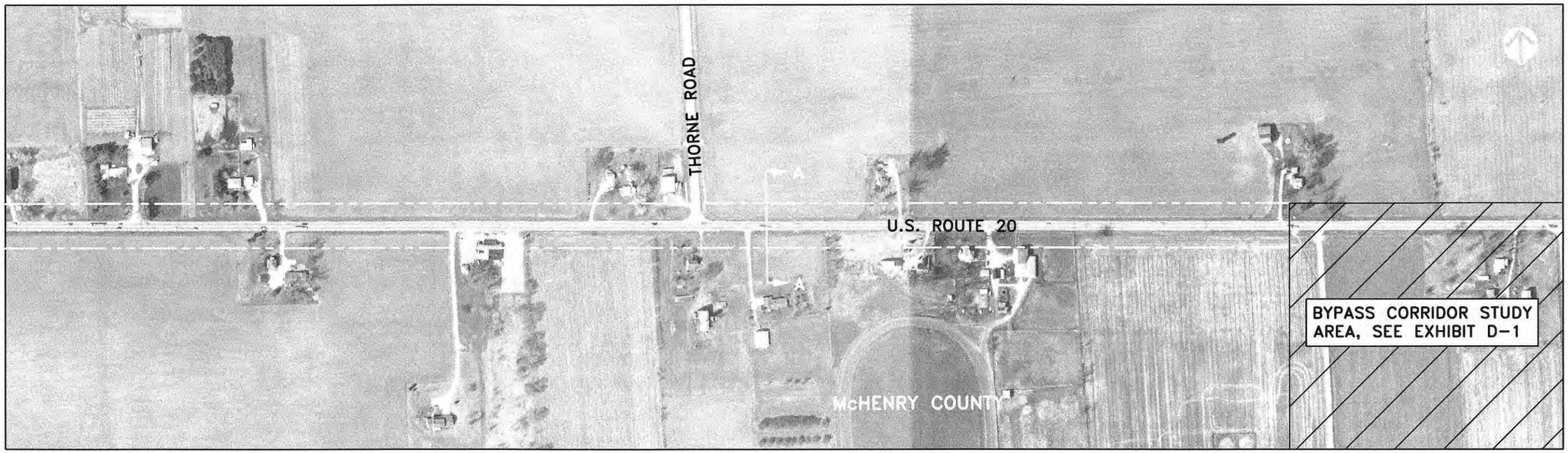
SCALE IN FEET

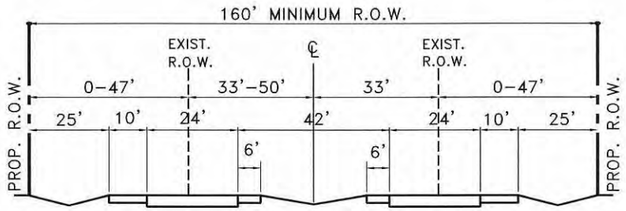
U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-2





DATE OF PHOTOGRAPHY: APRIL 14, 1995

SEGMENT 1



SECTION A-A
COUNTY LINE ROAD TO MARENGO BYPASS
RECOMMENDED CROSS SECTION

PROPOSED IMPROVEMENTS TO BE DETERMINED THROUGH A U.S. ROUTE 20 BYPASS FEASIBILITY STUDY OF THE CITY OF MARENGO

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
- PROPOSED LANE ARRANGEMENT
- EXISTING LANE ARRANGEMENT
- # PROPOSED NUMBER OF LANES
- EXISTING R.O.W. LINE
- FUTURE R.O.W. LINE
- ADDITIONAL R.O.W.
- BARRIER/GRASS MEDIAN

Illinois Department of Transportation

SRA Strategic Regional Arterial Planning Study

Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources, Inc.

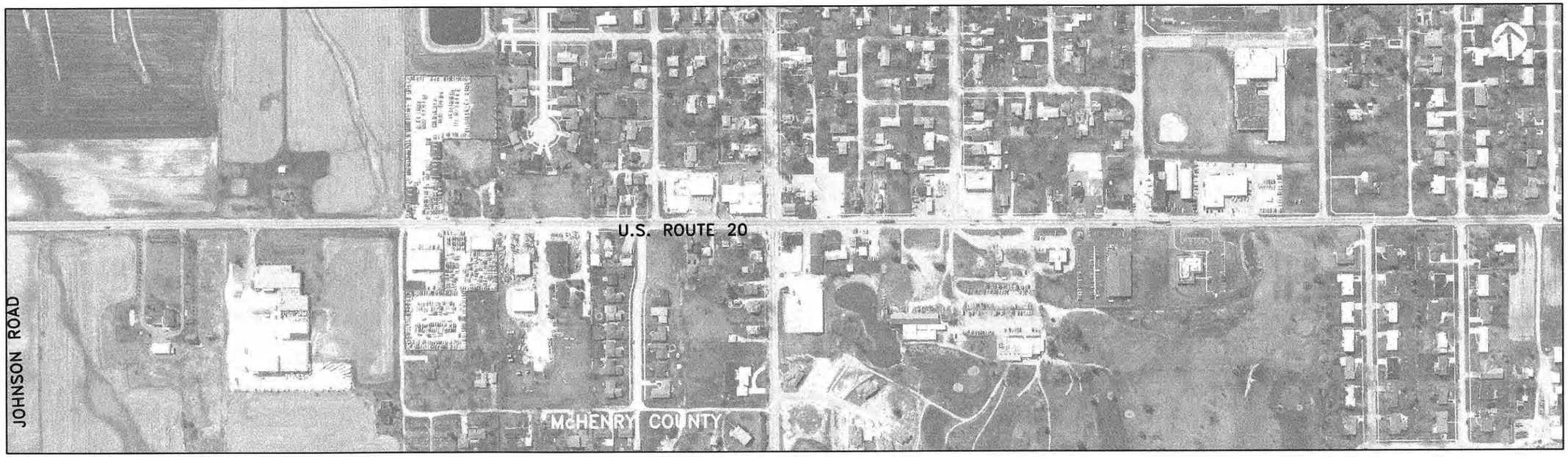
0 200 400 800
SCALE IN FEET

U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-3

PROPOSED LANE CONFIGURATION

PROPOSED SIGNAL SPACING

PROPOSED ACCESS CONTROL



DATE OF PHOTOGRAPHY: APRIL 14, 1995

SEGMENT 1

PROPOSED IMPROVEMENTS TO BE DETERMINED THROUGH A U.S. ROUTE 20 BYPASS FEASIBILITY STUDY OF THE CITY OF MARENGO.

PLEASE SEE EXHIBIT D-1 FOR BYPASS CORRIDOR STUDY AREA.

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
- PROPOSED LANE ARRANGEMENT
- EXISTING LANE ARRANGEMENT
- # PROPOSED NUMBER OF LANES
- EXISTING R.O.W. LINE
- FUTURE R.O.W. LINE
- ADDITIONAL R.O.W.
- BARRIER/GRASS MEDIAN

Illinois Department of Transportation

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Shah Engineering, Inc. Planning Resources Inc.

0 200 400 800
SCALE IN FEET

U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-4

Segment 2
Meyer Road to Shady Lane

3.2 Segment 2: Meyer Road to Shady Lane

3.2.1 Location

Segment 2 extends along U.S. Route 20 from Meyer Road to Shady Lane (see Figure 3.1). The segment is approximately 2.1 miles in length and is located in the City of Marengo. U.S. Route 20 is also referred to as Grant Highway in this segment.

3.2.2 Existing Facility Characteristics

Existing facility characteristics for this segment are shown on Exhibits A-5 through A-7.

Right-of-Way - The existing right-of-way in this segment varies between 66 feet and 80 feet.

Roadway Characteristics - The existing cross section in this segment consists of one 12 to 15-foot travel lane in each direction. A 12 foot painted median exists for a short section between Ford Street and Taylor Street. A combination of open ditch drainage and closed drainage with curb and gutter exist in this segment. Existing typical sections for this segment are included on Exhibits A-5 through A-7.

Traffic Volumes - Illinois Department of Transportation Traffic Maps indicate that for 1997 the average annual daily traffic for this segment varied from 10,500 to 13,200 vehicles per day.

Accidents - There are two high accident locations in this segment from Meyer Road to West Street and again from Rowland Avenue to Clark Street.

Parking, Sidewalks, and Frontage Roads - On-street parking is designated along the south side of U.S. Route 20 for one block between Taylor Street and Page Street. Sidewalks are provided for most of the segment where existing development occurs. No frontage roads are provided

Traffic Control/Intersection Configuration - There is one traffic signal in this segment located at the Illinois Route 23 (State Street) intersection. Existing lane configurations for this intersection are shown on Exhibits A-6 and A-7.

Structures - There are no existing structures in this segment.

Transit - There are no transit facilities in this segment.

3.2.3 Existing Environmental Characteristics

The existing environmental characteristics for Segment 2 of U.S. Route 20 are shown on Exhibits B-5 through B-7.

Lakes/Streams/Wetlands/Floodplains – A floodplain is located adjacent to both sides of U.S. Route 20, between Prospect Street and Shady Lane.

Structures with Historical Significance - Eleven historic structures located adjacent to U.S. Route 20 have been identified within Segment 2. Between Meyer Road and West Street, two historical residences (21701 and 722 W. Grant Street) have been identified on the north side of U.S. Route 20. Between Rowland Avenue and Illinois Route 23, five historic structures have been identified in this portion of downtown Marengo. Three of these structures are residences (416, 329 and 309 W. Grant Street). In addition, the Charles H. Hubbard House is located on the south side of U.S. Route 20, at 413 W. Grant Street. Thompson Store (102/109 W. Grant Street) is located on the south side of U.S. Route 20, between Ann Street and Route 23. East of Illinois Route 23, between Clark Street and Maple Street, two historic residences (416 and 521 E. Grant Street) and the Sherman Crissey House are located adjacent to U.S. Route 20. On the south side of U.S. Route 20, between Riley Drive and Shady Lane, the historic Marengo Pickle Works is located at 927 E. Grant Street.

Hazardous Waste/LUST Sites - There are two leaking underground storage tank (LUST) sites, identified by the Illinois Environmental Protection Agency, located within Segment 2. One site is located at the southeast corner of U.S. Route 20 and Illinois Route 23. The second site is on the north side of U.S. Route 20 between East Street and Maple Street.

Threatened or Endangered Species - There are no threatened or endangered species known to exist along this segment of the corridor, according to the Illinois Department of Natural Resources.

Prime Farmland - According to the Natural Resources Conservation Service, prime farmland abuts U.S. Route 20 at the western and eastern portions of Segment 2.

3.2.4 Existing Land Use Characteristics

Existing land use characteristics for this segment are shown on Exhibits B-5 through B-7.

Type and Intensity of Development - Segment 2 bisects the City of Marengo. The uses along this segment include a mixture of commercial, industrial, residential and institutional. Between West Street and Ford Street on the west side of Marengo and between Page Street and Prospect Street on the east, the primary land use is single-family residential fronting U.S. Route 20. Many of these residential structures have been identified as historic. The Marengo Community High School is located at the northeast corner of U.S. Route 20 and Prospect Street.

Planned Development - The City of Marengo has planned the area between Ritz Road and West Street, north of U.S. Route 20, for commercial use.

3.2.5 Recommended SRA Improvements - U.S. Route 20 Marengo Bypass Corridor

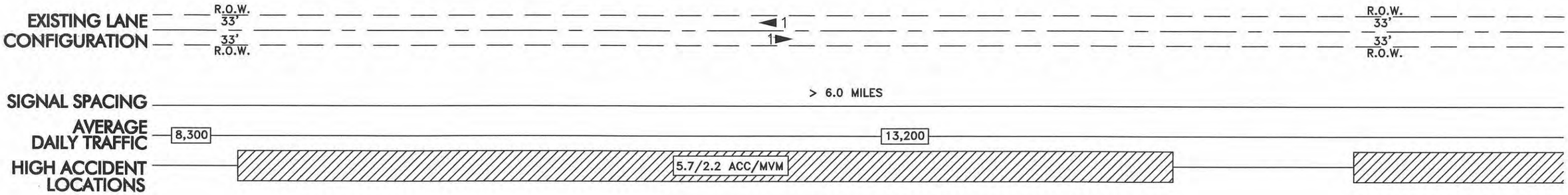
Input was received by the Illinois Department of Transportation from the Public Hearing held in December of 1999 at the Marengo City Hall for the U.S. Route 20 SRA report. Significant opposition was documented towards the widening of U.S. Route 20 to five lanes on its existing alignment through the City. It was conveyed at the meeting that many residents and City Officials believed that any widening, beyond a three lane cross section, would be detrimental to the homes, businesses, and historical buildings along the U.S. Route 20. Significant numbers of large trees would need to be removed and parkway and green space would diminish. These impacts were felt to be harmful, not only to the properties along the roadway, but to the community as a whole. The City requested that IDOT seriously investigate designation of a bypass corridor around the City to mitigate the effects of increased traffic volumes though the center of Marengo.

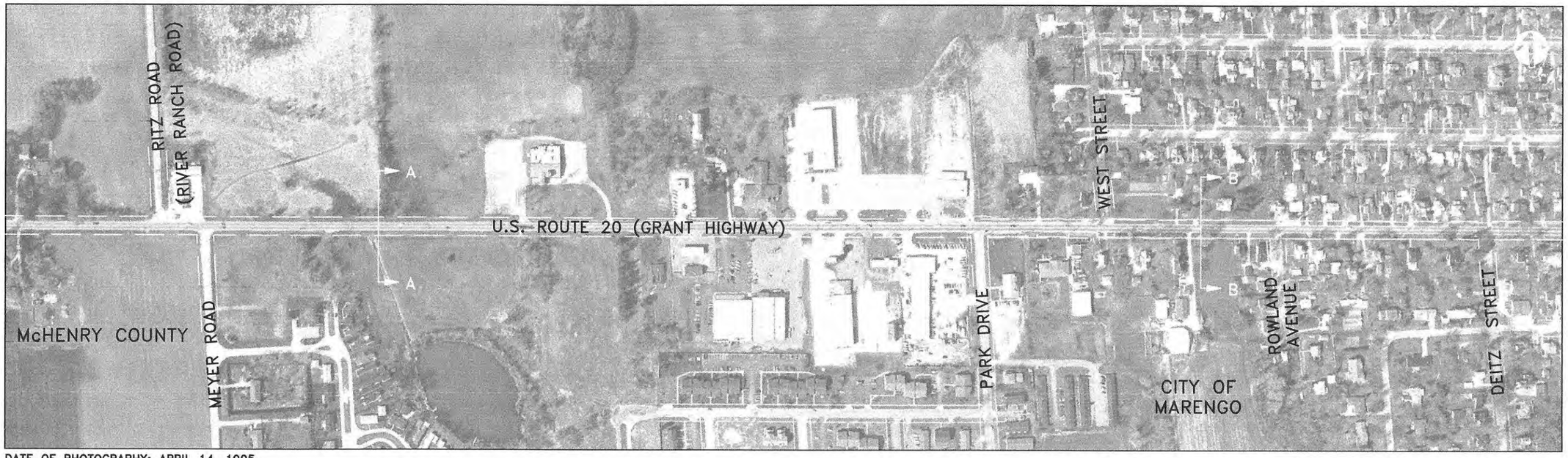
To meet this end, the Final report has been modified to indicate a broad corridor shown on Exhibit D-1, along the south side of the City, which could at some point in the future be considered for a bypass around Marengo. The specific details and location which would define the bypass within this corridor will need to be formulated as part of a separate feasibility study complying with State and Federal guidelines. This study would fully evaluate issues such as environmental impacts, impacts to businesses and residences, and the effect of such an improvement to the traffic patterns of the area. Completion of such a study is beyond the comprehensive planning aspects intended to be accomplished by the SRA process.

Segment 2
Meyer Road to Shady Lane

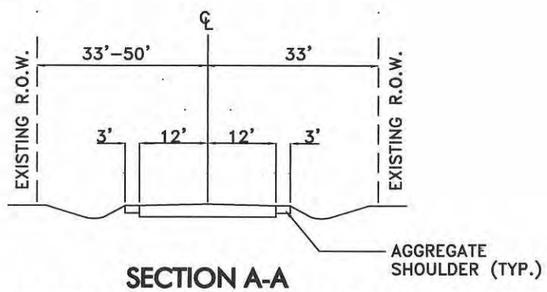
EXISTING FACILITY CHARACTERISTICS

Exhibits A-5 through A-7

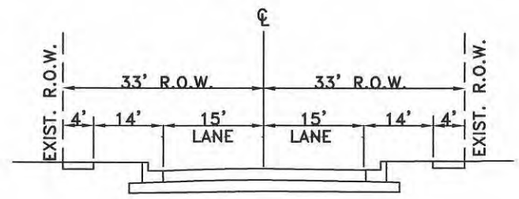




DATE OF PHOTOGRAPHY: APRIL 14, 1995



SECTION A-A
COUNTY LINE ROAD TO PARK DRIVE



SECTION B-B
PARK DRIVE TO FORD STREET

LEGEND

- SIGNALIZED INTERSECTION
- LANE ARRANGEMENTS AT KEY INTERSECTIONS
- (P) PARKING ALLOWED
- (NR) NO PARKING RESTRICTIONS
- [B] DESIGNATED BUS STOP
- [CTA] RAPID TRANSIT STATION
- [METRA] METRA STATION
- HIGH ACCIDENT LOCATION
- EXISTING NUMBER OF LANES

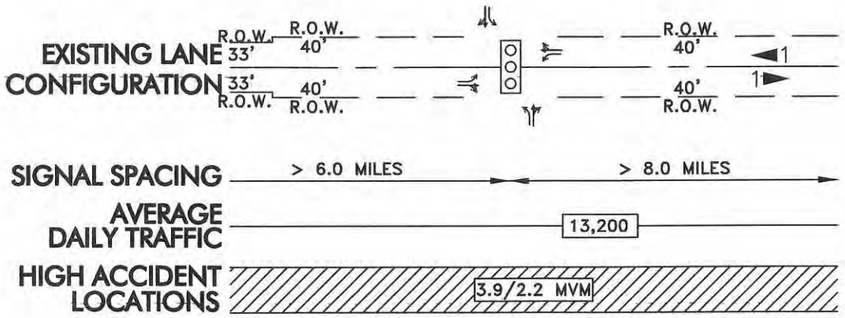
Illinois Department of Transportation

SRA Strategic Regional Arterial Planning Study

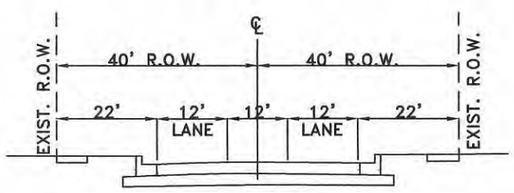
Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources Inc.

0 200 400 800
SCALE IN FEET

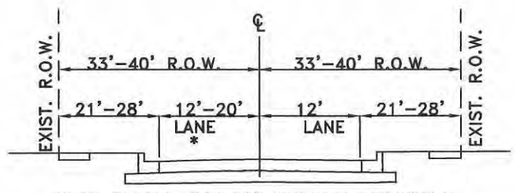
U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-5



DATE OF PHOTOGRAPHY: FEBRUARY 3, 1997



SECTION C-C
FORD STREET TO TAYLOR STREET



*SEE PLAN SHEET FOR PARKING LOCATIONS

SECTION D-D
TAYLOR STREET TO LOCUST STREET

LEGEND

- SIGNALIZED INTERSECTION
- LANE ARRANGEMENTS AT KEY INTERSECTIONS
- (P) PARKING ALLOWED
- (NR) NO PARKING RESTRICTIONS
- [B] DESIGNATED BUS STOP
- [CTA] RAPID TRANSIT STATION
- [METRA] METRA STATION
- HIGH ACCIDENT LOCATION
- ◄# EXISTING NUMBER OF LANES

Illinois Department of Transportation

STRA Strategic Regional Arterial Planning Study

Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources, Inc.

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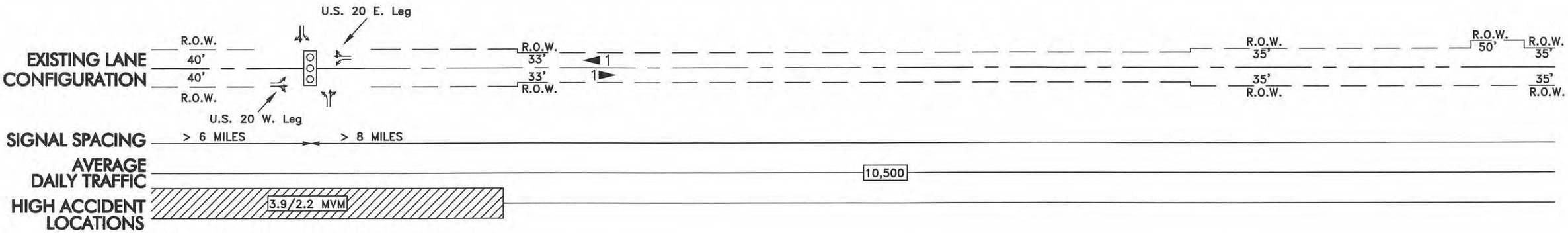
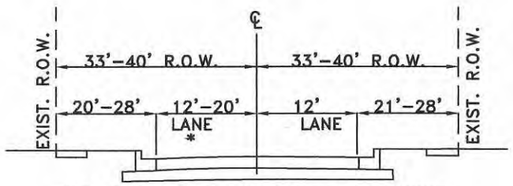
U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-6

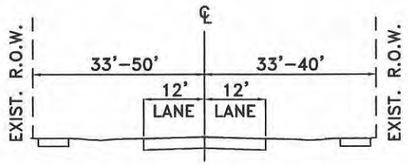


DATE OF PHOTOGRAPHY: FEBRUARY 3, 1997



*SEE PLAN SHEET FOR PARKING LOCATIONS

SECTION D-D
TAYLOR STREET TO LOCUST STREET



SECTION E-E
LOCUST STREET TO SHADY LANE

LEGEND

- SIGNALIZED INTERSECTION
- LANE ARRANGEMENTS AT KEY INTERSECTIONS
- (P) PARKING ALLOWED
- (NR) NO PARKING RESTRICTIONS
- [B] DESIGNATED BUS STOP
- [CTA] RAPID TRANSIT STATION
- [METRA] METRA STATION
- HIGH ACCIDENT LOCATION (ACTUAL/CRITICAL)
- # EXISTING NUMBER OF LANES

Illinois Department of Transportation

STRA Strategic Regional Arterial Planning Study

Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources Inc.

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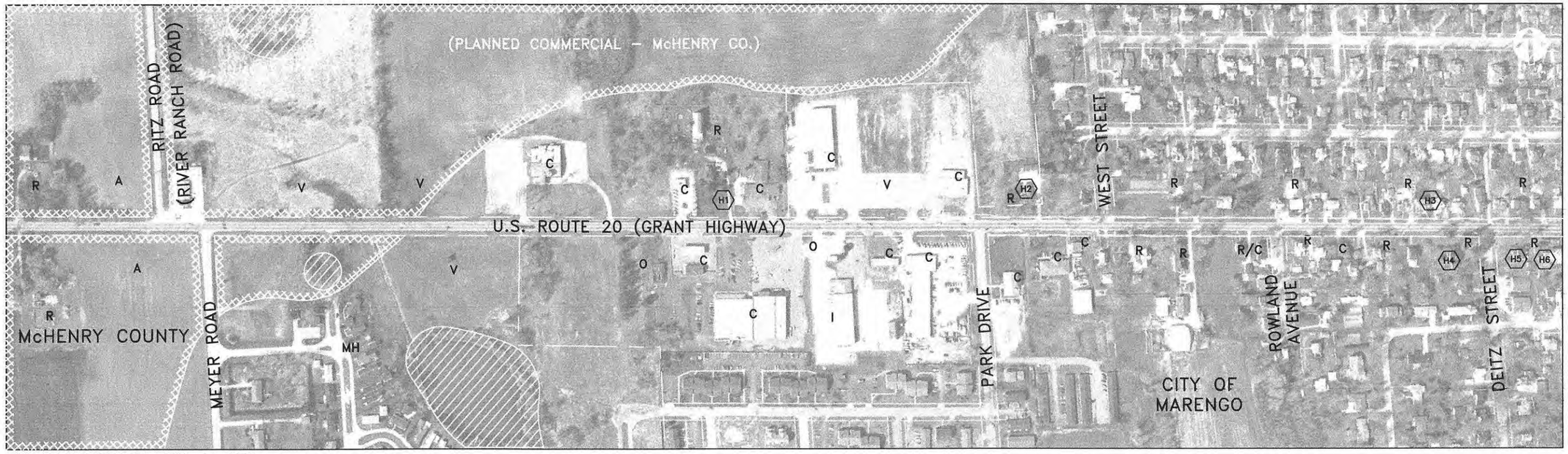
SCALE IN FEET

U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-7

Segment 2
Meyer Road to Shady Lane

LAND USE AND ENVIRONMENTAL CONDITIONS

Exhibits B-5 through B-7



DATE OF PHOTOGRAPHY: APRIL 14, 1995

ENVIRONMENTAL FACTORS LEGEND

- C1 HAZARDOUS WASTE SITE
- LEAKING UNDERGROUND STORAGE TANK
- H1 HISTORIC BUILDING/DISTRICT
- WETLAND
- THREATENED AND ENDANGERED SPECIES HABITAT
- PRIME AGRICULTURAL LAND
- FLOODPLAIN/FLOODWAY

HISTORIC BUILDINGS

- H1 RESIDENCE, 21701 W. GRANT ST.
- H2 RESIDENCE, 722 W. GRANT ST.
- H3 RESIDENCE, 416 W. GRANT ST.
- H4 CHARLES H. HIBBARD HOUSE, 413 W. GRANT HIGHWAY
- H5 RESIDENCE, 329 W. GRANT ST.
- H6 RESIDENCE, 309 W. GRANT ST.

LAND USE LEGEND

R	SINGLE-FAMILY RESIDENTIAL
RM	MULTI-FAMILY RESIDENTIAL (UP TO 3 FLOORS)
RH	HIGH RISE RESIDENTIAL (>3 FLOORS)
MH	MOBILE HOME PARK
O	OFFICE (UP TO 3 FLOORS)
OH	OFFICE HIGH RISE (>3 FLOORS)
C	COMMERCIAL RETAIL/SERVICE
CA	COMMERCIAL AGRICULTURE (NURSERY, ETC.)
CR	COMMERCIAL RECREATION (GOLF COURSE, ETC.)
I	INDUSTRIAL/WAREHOUSE
+	CHURCH/TEMPLE (NAME)
S	SCHOOL (NAME)
*	CEMETERY (NAME)
G	GOVERNMENT/INSTITUTION (FIRE, POLICE, ETC.)
P	PARK/FOREST PRESERVE (NAME)
U	UTILITY
E	EXTRACTION (MINING & GRAVEL)
A	AGRICULTURE
V	VACANT
( )	PLANNED USE/JURISDICTION
----	PLANNED USE/JURISDICTION BOUNDARY
----	MUNICIPAL BOUNDARY
— —	EXISTING RIGHT OF WAY

NOTE: CATEGORY INDICATES PREDOMINANT LAND USE

Illinois Department of Transportation

STRA Strategic Regional Arterial Planning Study

Prepared by: CIVILTECH ENGINEERING, INC.
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Shah Engineering, Inc. Planning Resources Inc.

0 200 400 800
SCALE IN FEET

U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-5

DATE OF PHOTOGRAPHY: FEBRUARY 3, 1997

ENVIRONMENTAL FACTORS LEGEND

- C1 HAZARDOUS WASTE SITE
- LEAKING UNDERGROUND STORAGE TANK
- H1 HISTORIC BUILDING/DISTRICT
- WETLAND
- THREATENED AND ENDANGERED SPECIES HABITAT
- PRIME AGRICULTURAL LAND
- FLOODPLAIN/FLOODWAY

HISTORIC BUILDINGS

H7 THOMPSON STORE
C. 1890
102/109 W. GRANT HIGHWAY

LAND USE LEGEND

R	SINGLE-FAMILY RESIDENTIAL
RM	MULTI-FAMILY RESIDENTIAL (UP TO 3 FLOORS)
RH	HIGH RISE RESIDENTIAL (>3 FLOORS)
MH	MOBILE HOME PARK
O	OFFICE (UP TO 3 FLOORS)
OH	OFFICE HIGH RISE (>3 FLOORS)
C	COMMERCIAL RETAIL/SERVICE
CA	COMMERCIAL AGRICULTURE (NURSERY, ETC.)
CR	COMMERCIAL RECREATION (GOLF COURSE, ETC.)
I	INDUSTRIAL/WAREHOUSE
†	CHURCH/TEMPLE (NAME)
S	SCHOOL (NAME)
*	CEMETERY (NAME)
G	GOVERNMENT/INSTITUTION (FIRE, POLICE, ETC.)
P	PARK/FOREST PRESERVE (NAME)
U	UTILITY
E	EXTRACTION (MINING & GRAVEL)
A	AGRICULTURE
V	VACANT
()	PLANNED USE/JURISDICTION
----	PLANNED USE/JURISDICTION BOUNDARY
----	MUNICIPAL BOUNDARY
— —	EXISTING RIGHT OF WAY

NOTE: CATEGORY INDICATES PREDOMINANT LAND USE

Illinois Department of Transportation

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0 200 400 800
SCALE IN FEET

U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-6

DATE OF PHOTOGRAPHY: FEBRUARY 3, 1997

ENVIRONMENTAL FACTORS LEGEND

- C1 HAZARDOUS WASTE SITE
- LEAKING UNDERGROUND STORAGE TANK
- H1 HISTORIC BUILDING/DISTRICT
- WETLAND
- THREATENED AND ENDANGERED SPECIES HABITAT
- PRIME AGRICULTURAL LAND
- FLOODPLAIN/FLOODWAY

HISTORIC BUILDINGS

- H7 THOMPSON STORE
  C. 1890
  102/109 W. GRANT HIGHWAY
- H8 RESIDENCE
  416 – 418 W. GRANT HIGHWAY
- H9 RESIDENCE
  C. 1857
  521 E. GRANT HIGHWAY
- H10 SHERMAN CRISSEY HOUSE
  C. 1872
  553 E. GRANT HIGHWAY
- H11 MARENGO PICKLE WORKS
  C. 1870
  927 E. GRANT HIGHWAY

LAND USE LEGEND

R	SINGLE–FAMILY RESIDENTIAL
RM	MULTI–FAMILY RESIDENTIAL (UP TO 3 FLOORS)
RH	HIGH RISE RESIDENTIAL (>3 FLOORS)
MH	MOBILE HOME PARK
O	OFFICE (UP TO 3 FLOORS)
OH	OFFICE HIGH RISE (>3 FLOORS)
C	COMMERCIAL RETAIL/SERVICE
CA	COMMERCIAL AGRICULTURE (NURSERY, ETC.)
CR	COMMERCIAL RECREATION (GOLF COURSE, ETC.)
I	INDUSTRIAL/WAREHOUSE
†	CHURCH/TEMPLE (NAME)
S	SCHOOL (NAME)
*	CEMETERY (NAME)
G	GOVERNMENT/INSTITUTION (FIRE, POLICE, ETC.)
P	PARK/FOREST PRESERVE (NAME)
U	UTILITY
E	EXTRACTION (MINING & GRAVEL)
A	AGRICULTURE
V	VACANT
( )	PLANNED USE/JURISDICTION
– – –	PLANNED USE/JURISDICTION BOUNDARY
– – –	MUNICIPAL BOUNDARY
— —	EXISTING RIGHT OF WAY

NOTE: CATEGORY INDICATES PREDOMINANT LAND USE

Illinois Department of Transportation

STRA Strategic Regional Arterial Planning Study

Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources Inc.

0 200 400 800
SCALE IN FEET

U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-7

Segment 2
Meyer Road to Shady Lane

RECOMMENDED PLAN

Exhibits C-5 through C-7

PROPOSED LANE CONFIGURATION

PROPOSED SIGNAL SPACING

PROPOSED ACCESS CONTROL

FOR SHEETS C-5 THROUGH C-7, PROPOSED IMPROVEMENTS TO BE DETERMINED THROUGH A U.S. ROUTE 20 BYPASS FEASIBILITY STUDY OF THE CITY OF MARENGO.

SEE EXHIBIT D-1 FOR BYPASS CORRIDOR STUDY AREA.

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
- PROPOSED LANE ARRANGEMENT
- EXISTING LANE ARRANGEMENT
- # PROPOSED NUMBER OF LANES
- EXISTING R.O.W. LINE
- FUTURE R.O.W. LINE
- ADDITIONAL R.O.W.
- BARRIER/GRASS MEDIAN

Illinois Department of Transportation

STRA Strategic Regional Arterial Planning Study

Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources Inc.

0 200 400 800
SCALE IN FEET

U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-5 THROUGH C-7

Segment 2

U.S. ROUTE 20 BYPASS CORRIDOR STUDY AREA

Exhibit D-1

Illinois Department of Transportation

SRA Strategic Regional Arterial Planning Study

Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources, Inc.

US ROUTE 20 BYPASS CORRIDOR STUDY AREA
EXHIBIT D1

Segment 3
Shady Lane to Harmony Road

3.3 Segment 3: Shady Lane to Harmony Road

3.3.1 Location

Segment 3 extends along U.S. Route 20 from Shady Lane to Harmony Road (see Figure 3.1). The segment is approximately 6.8 miles in length and is located in unincorporated McHenry County.

3.3.2 Existing Facility Characteristics

Existing facility characteristics for this segment are shown on Exhibits A-8 through A-14.

Right-of-Way - The existing right-of-way in this segment varies from 66 feet to 120 feet in width.

Roadway Characteristics - The existing cross section in this segment consists of one, 12-foot travel lane in each direction with no median. A gravel shoulder with open ditch drainage is typical for this segment. Existing typical sections for this segment are included on Exhibits A-8 through A-14.

Traffic Volumes - Illinois Department of Transportation Traffic Maps indicate that for 1997 the average annual daily traffic for this segment varied from 5,500 to 9,200 vehicles per day.

Accidents - There are no high accident locations in this segment.

Parking, Sidewalks, and Frontage Roads - There are no on-street parking spaces, sidewalks, or frontage roads in this segment.

Traffic Control/Intersection Configuration - There are no signalized intersections in this segment.

Structures - There are no existing structures in this segment.

Transit - There are no transit facilities in this segment.

3.3.3 Existing Environmental Characteristics

The existing environmental characteristics for Segment 3 of U.S. Route 20 are shown on Exhibits B-8 through B-14.

Lakes/Streams/Wetlands/Floodplains - A small stream and associated wetlands are located adjacent to the north side of U.S. Route 20, west of Union Road. Another small stream and wetlands are located adjacent to U.S. Route 20 between Union Road and Coral Road. Several wetlands with associated floodplain are located adjacent to both sides of the U.S. Route 20 right-of-way between Coral Road and Church Road.

Structures with Historical Significance - There are no sites of documented historical significance located along this segment.

Hazardous Waste/LUST Sites - There are no hazardous waste or LUST sites documented by the Illinois Environmental Protection Agency along this segment.

Threatened or Endangered Species - There are no threatened or endangered species known to exist along this segment of the corridor, according to the Illinois Department of Natural Resources.

Prime Farmland - According to the Natural Resources Conservation Service, prime farmland abuts a majority of U.S. Route 20, within Segment 3.

3.3.4 Existing Land Use Characteristics

Existing land use characteristics for this segment are shown on Exhibits B-8 through B-14.

Type and Intensity of Development - The primary land use along Segment 3 is agriculture Between Shady Lane and Coral Road several residential, office and commercial uses front onto U.S. Route 20. A cemetery is located on the south side of U.S. Route 20, east of Coral Road.

Planned Development - McHenry County has planned the area near the intersection of Route 20 and Harmony Road as commercial and low density residential.

3.3.5 Recommended SRA Improvements

The recommended plan for this segment is shown on Exhibits C-8 through C-14.

Roadway - The recommendation for this segment is to widen U.S. Route 20 to provide two 12-foot travel lanes in each direction with a 42-foot open ditch median. Provide 6-foot inside shoulders (within the median) and 10-foot outside shoulders with an open drainage system.

Traffic Control/Intersection Configuration - The recommended future signals should be installed only at the locations shown and only when the signal warrants recommended for SRA routes are met. Signal warrants for SRA routes are discussed in Section 10.4.2 of the Strategic Regional Arterial Design Concept Report (1994). Traffic signal interconnection is recommended.

Access Management - Future access locations will be restricted to right-in/right-out only except where full access locations are shown. U-TURN movements will be permitted for passenger vehicles and small trucks at signalized intersections.

Transit - Park and Pool lots should be implemented at the Illinois Route 23 Bypass, schools, shopping centers, forest preserves and major employment centers.

3.3.6 Right-of-Way Requirements

Additional right-of-way will be required for this segment. The existing right-of-way varies from 66 feet to 120 feet and with the recommended roadway plan of 160 feet of right-of-way, 40 to 94 additional feet will be required. The necessary right-of-way can be taken from both sides of U.S. Route 20 to lessen the impacts. See Exhibit C-8 through C-14 for right-of-way acquisition details.

3.3.7 Environmental Considerations

Twenty to 45 feet of right-of-way acquisition on both sides of U.S. Route 20 will result in the loss of prime agricultural land. Several wetlands, located adjacent to the existing right-of-way, will be impacted by roadway improvements. A large wetland/floodplain system, located adjacent to the west side of U.S. Route 20 and north of Beck Road, will be impacted by the acquisition of 45 feet of additional right-of-way. There will be no impact to the cemetery located south of Coral Road since no right-of-way will be acquired along its frontage.

3.3.8 Land Use Considerations

Forty-five feet of right-of-way acquisition on both sides of the roadway, east of Shady Lane, will result in the taking of one office building and the loss of parking for several commercial uses. Forty to 80 feet of right-of-way acquisition near the U.S. Route 20 intersection with Coral Road will result in the taking of both single-family residential and commercial uses. Twenty to 47 feet of right-of-way acquisition along U.S. Route 20 will reduce or eliminate the front yards of many agricultural farmsteads and single-family residences fronting U.S. Route 20. The ditch median in Segment 3 would prevent direct left turns into uses fronting onto U.S. Route 20, except at planned full movement intersections. The location of access and setbacks associated with future development should be coordinated with SRA improvements.

3.3.9 Construction/Right-of-Way Cost Estimates

The cost estimate for Segment 3 is shown in Table 3.3.1. This construction cost estimate is based on 1991 unit prices.

3.3.10 Short Term/Low Cost Improvements

Improvements which are consistent with SRA policy, and are either low cost or implemented prior to construction of the overall SRA improvement are recommended for short term (1-5 years) implementation. There are no short term/low cost improvements for this segment.

3.3.11 Ultimate (Post 2020) Improvements

Improvements which are consistent with SRA policy for suburban or rural routes but are considered best implemented beyond the SRA planning horizon are recommended for Post 2020 consideration. There are no Ultimate (post 2020) improvements recommended for this segment.

3.3.12 Crossing SRA Routes

Illinois Route 23 is also designated as an SRA route. The SRA study for this corridor was completed in July of 1996. The Illinois Route 23 SRA report recommended an eastern bypass of Marengo which would cross U.S. Route 20 east of Shady Lane. A study has yet to be performed detailing the specific location and geometrics of the Illinois Route 23 bypass. An approximate location is shown on Exhibit C-8.

Table 3.3.1
Construction Cost Estimate
Segment 3 - Shady Lane to Harmony Road

Recommended Improvements	Estimated Cost
Roadway	$13,000,000
Intersection Improvements	$3,150,000
Right-of-Way Acquisition	$2,106,000
Total - Recommended Improvements	**$18,256,000**

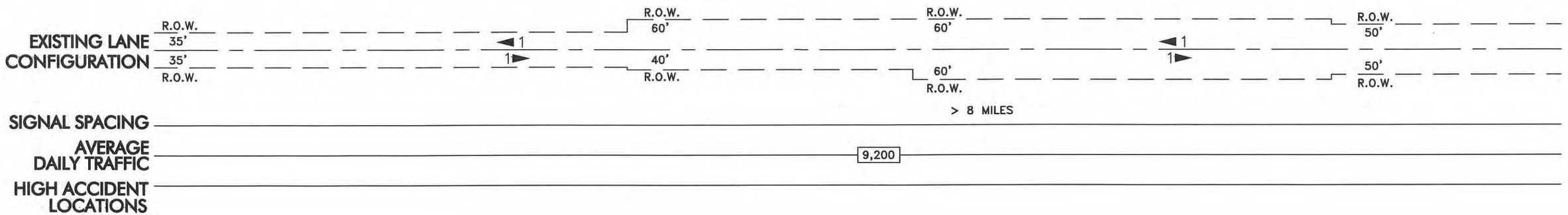
Note: This construction cost estimate is based on 1991 unit prices.

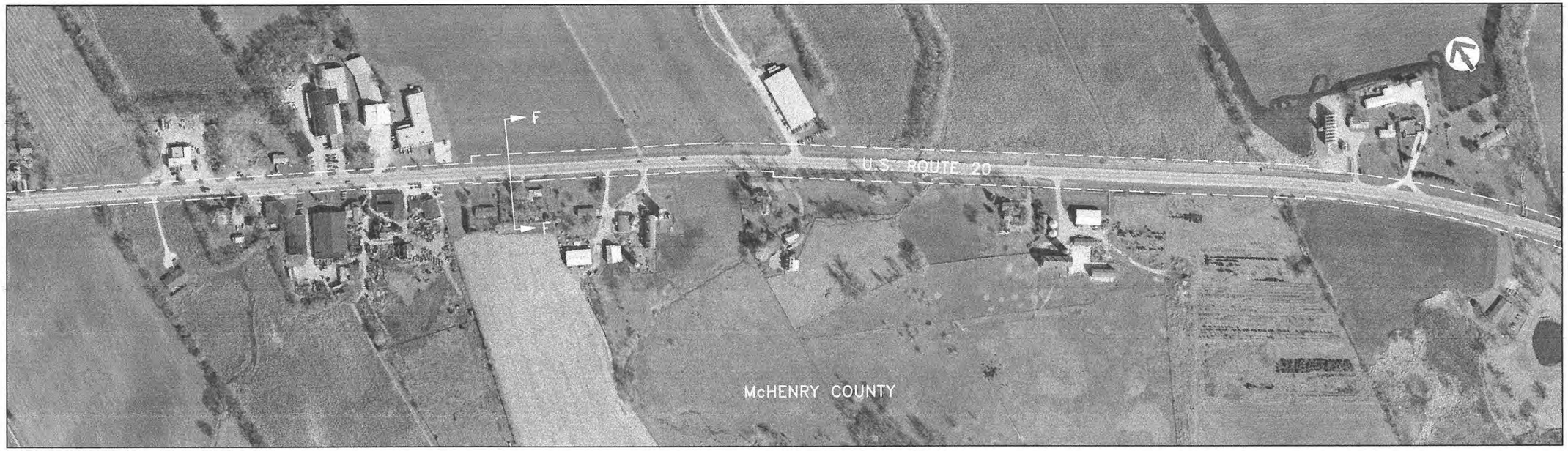
Segment 3
Shady Lane to Harmony Road

EXISTING FACILITY CHARACTERISTICS

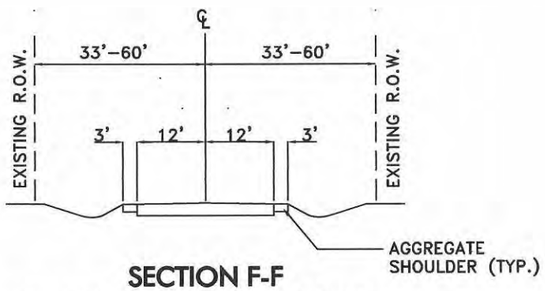
Exhibits A-8 through A-14

See Segment 4 for Exhibit A-14





DATE OF PHOTOGRAPHY: FEBRUARY 3, 1997



SECTION F-F
SHADY LANE TO GETTY ROAD

LEGEND

- SIGNALIZED INTERSECTION
- LANE ARRANGEMENTS AT KEY INTERSECTIONS
- (P) PARKING ALLOWED
- (NR) NO PARKING RESTRICTIONS
- [B] DESIGNATED BUS STOP
- [CTA] RAPID TRANSIT STATION
- [METRA] METRA STATION
- HIGH ACCIDENT LOCATION (ACTUAL/CRITICAL)
- ◄ # EXISTING NUMBER OF LANES

Illinois Department of Transportation

STRA Strategic Regional Arterial Planning Study

Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources Inc.

0 200 400 800
SCALE IN FEET

U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-8

EXISTING LANE CONFIGURATION

R.O.W. 50' — 1 — 1 — 50' R.O.W.

R.O.W. 40' — 1 — 1 — 40' R.O.W.

R.O.W. 40' — 1 — 1 — 40' R.O.W.

SIGNAL SPACING

> 8 MILES

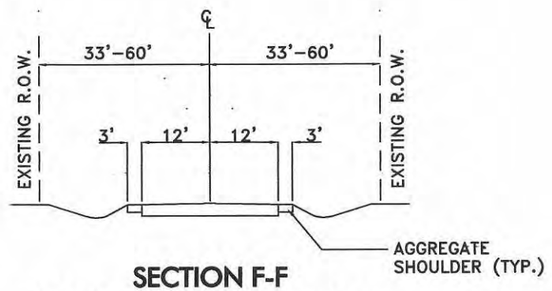
AVERAGE DAILY TRAFFIC

5,500

5,700

HIGH ACCIDENT LOCATIONS

DATE OF PHOTOGRAPHY: FEBRUARY 3, 1997



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U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-9

EXISTING LANE CONFIGURATION	R.O.W. 40' / 40' R.O.W.	◄1 1►	◄1 1►	R.O.W. 40' / 40' R.O.W.
SIGNAL SPACING		> 8 MILES	
AVERAGE DAILY TRAFFIC		7,400	
HIGH ACCIDENT LOCATIONS			

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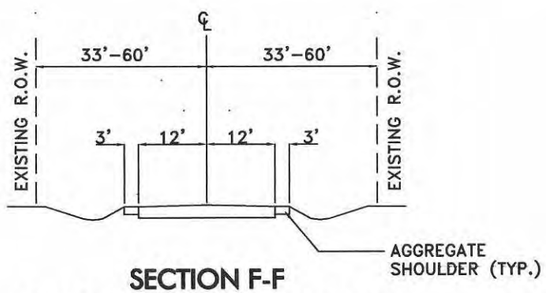

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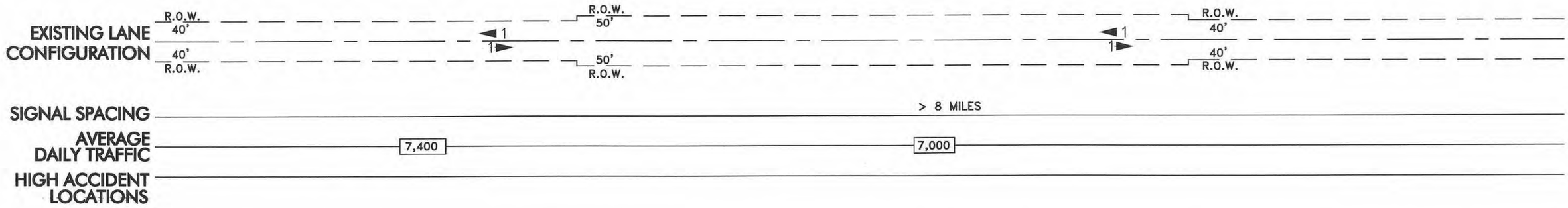
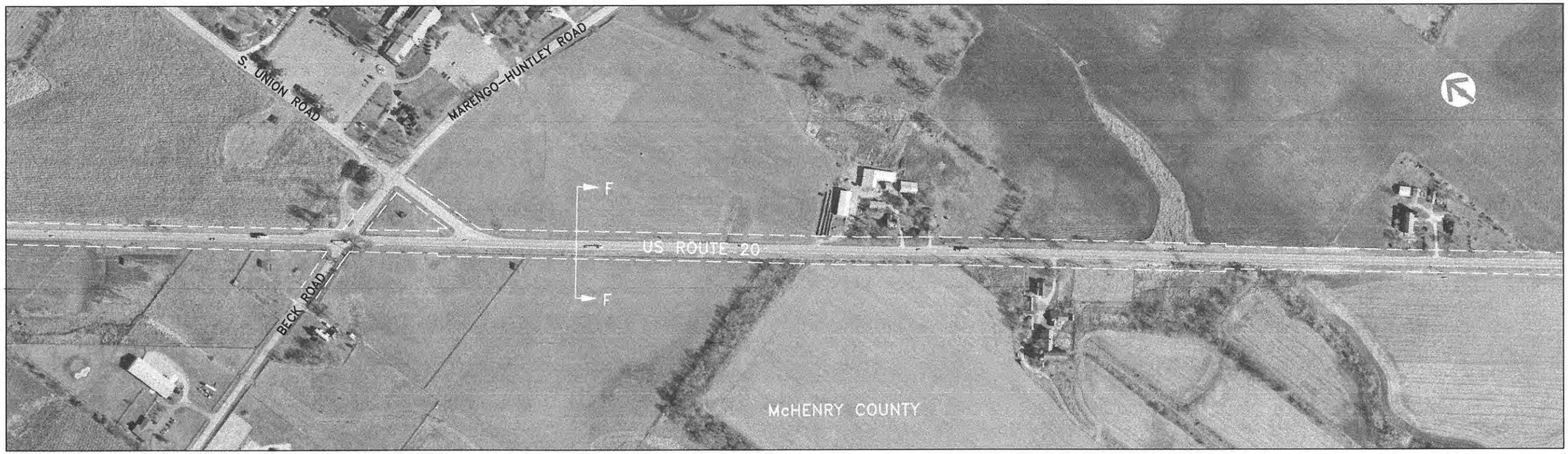
U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-10





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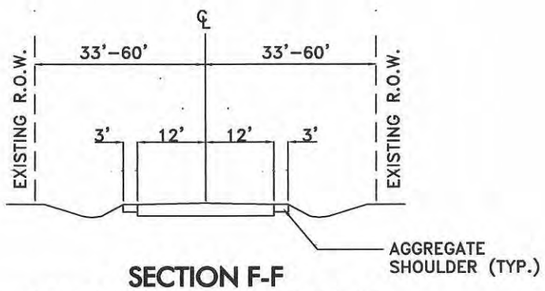

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SCALE IN FEET

U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-11

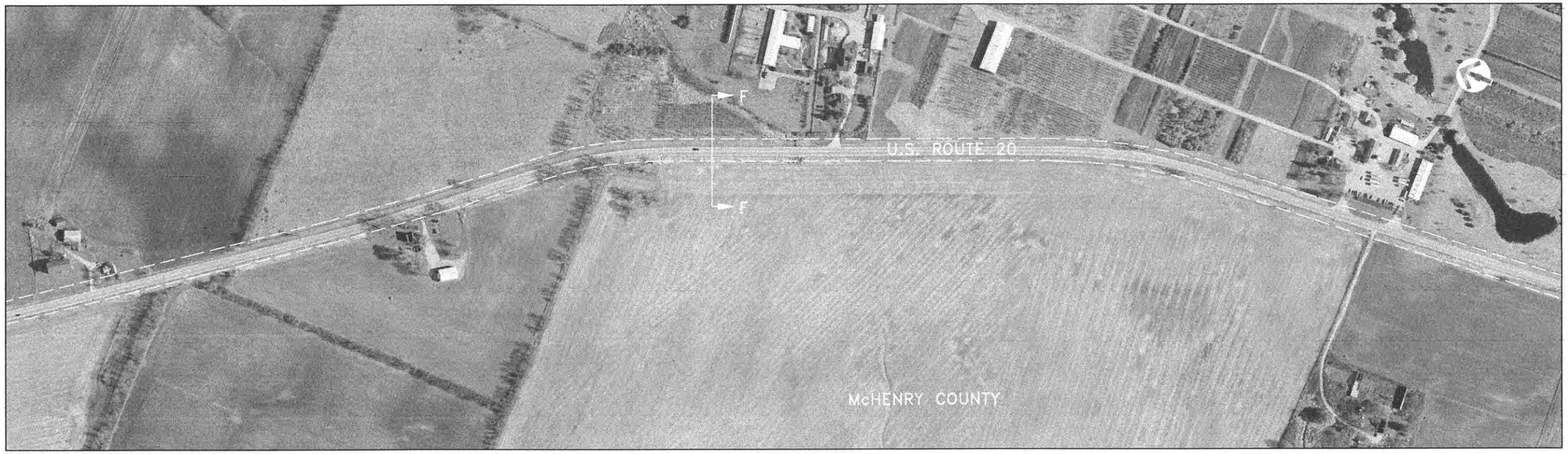
EXISTING LANE CONFIGURATION

R.O.W. 40' — 1 — 1 — 1 — 1 — 40' R.O.W.

SIGNAL SPACING > 8 MILES

AVERAGE DAILY TRAFFIC 7,000

HIGH ACCIDENT LOCATIONS



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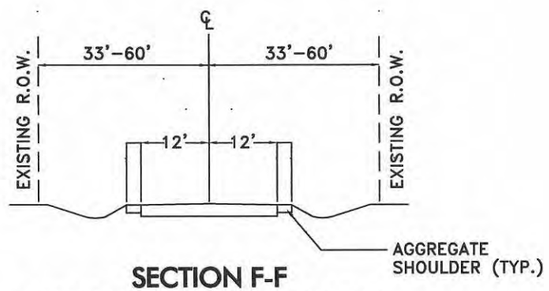

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Illinois Department of Transportation

SRA Strategic Regional Arterial Planning Study

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SCALE IN FEET

U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-12

EXISTING LANE CONFIGURATION

R.O.W. 40' | 1 ◄ 1 ► | 40' R.O.W. — R.O.W. 33' | 1 ◄ 1 ► | 33' R.O.W.

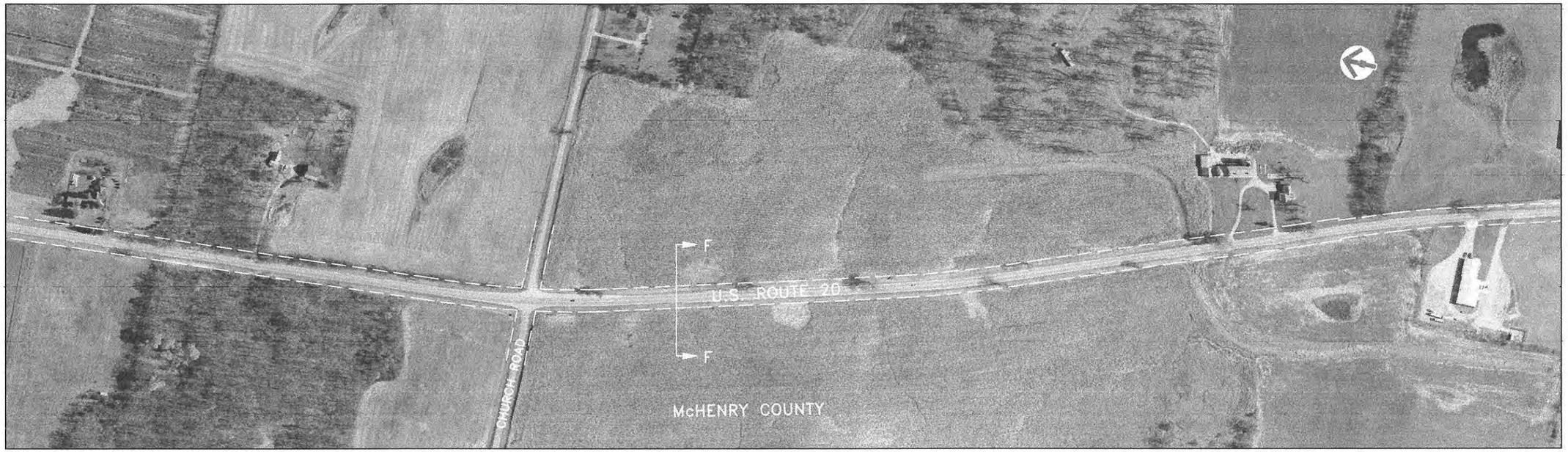
SIGNAL SPACING

> 8 MILES

AVERAGE DAILY TRAFFIC

7,000 — 6,600

HIGH ACCIDENT LOCATIONS



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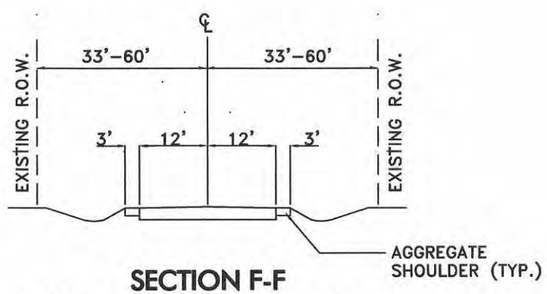

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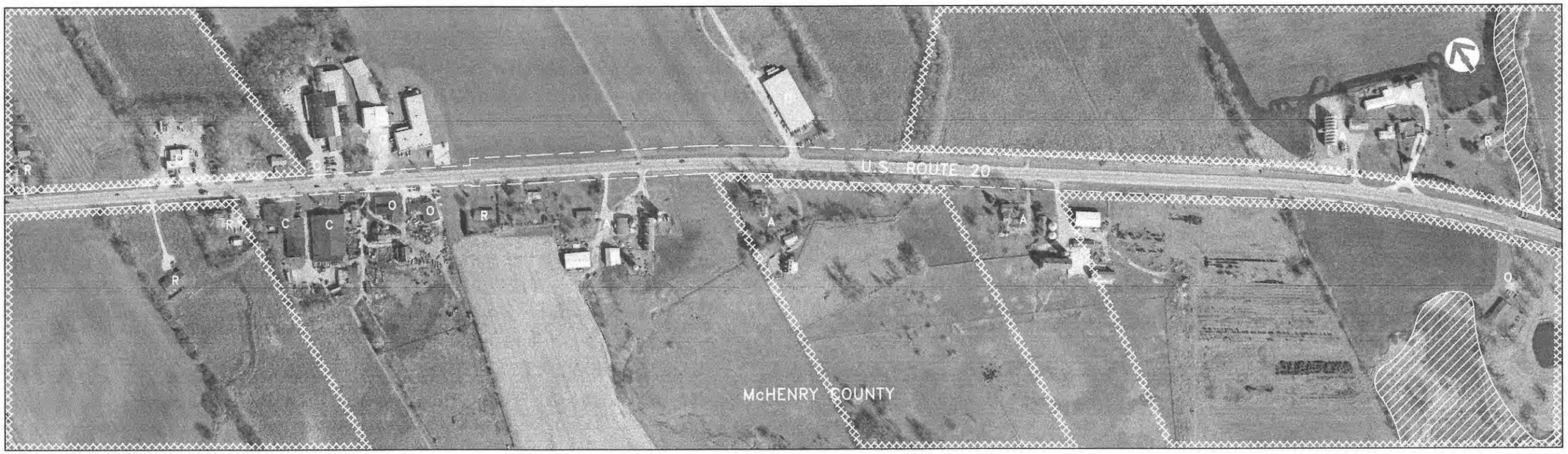
U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-13

Segment 3
Shady Lane to Harmony Road

LAND USE AND ENVIRONMENTAL CONDITIONS

Exhibits B-8 through B-14

See Segment 4 for Exhibit B-14



DATE OF PHOTOGRAPHY: FEBRUARY 3, 1997

ENVIRONMENTAL FACTORS LEGEND

- C1 HAZARDOUS WASTE SITE
- LEAKING UNDERGROUND STORAGE TANK
- H1 HISTORIC BUILDING/DISTRICT
- WETLAND
- THREATENED AND ENDANGERED SPECIES HABITAT
- PRIME AGRICULTURAL LAND
- FLOODPLAIN/FLOODWAY

LAND USE LEGEND

R	SINGLE-FAMILY RESIDENTIAL
RM	MULTI-FAMILY RESIDENTIAL (UP TO 3 FLOORS)
RH	HIGH RISE RESIDENTIAL (>3 FLOORS)
MH	MOBILE HOME PARK
O	OFFICE (UP TO 3 FLOORS)
OH	OFFICE HIGH RISE (>3 FLOORS)
C	COMMERCIAL RETAIL/SERVICE
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— —	EXISTING RIGHT OF WAY

NOTE: CATEGORY INDICATES PREDOMINANT LAND USE

Illinois Department of Transportation

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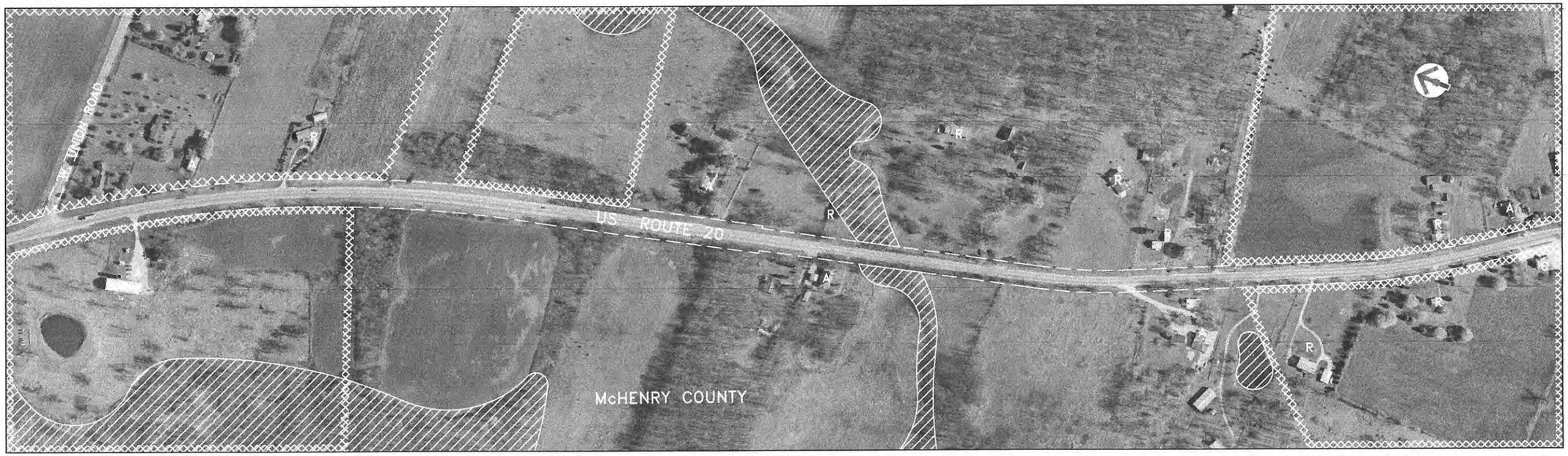
U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-8



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U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-9

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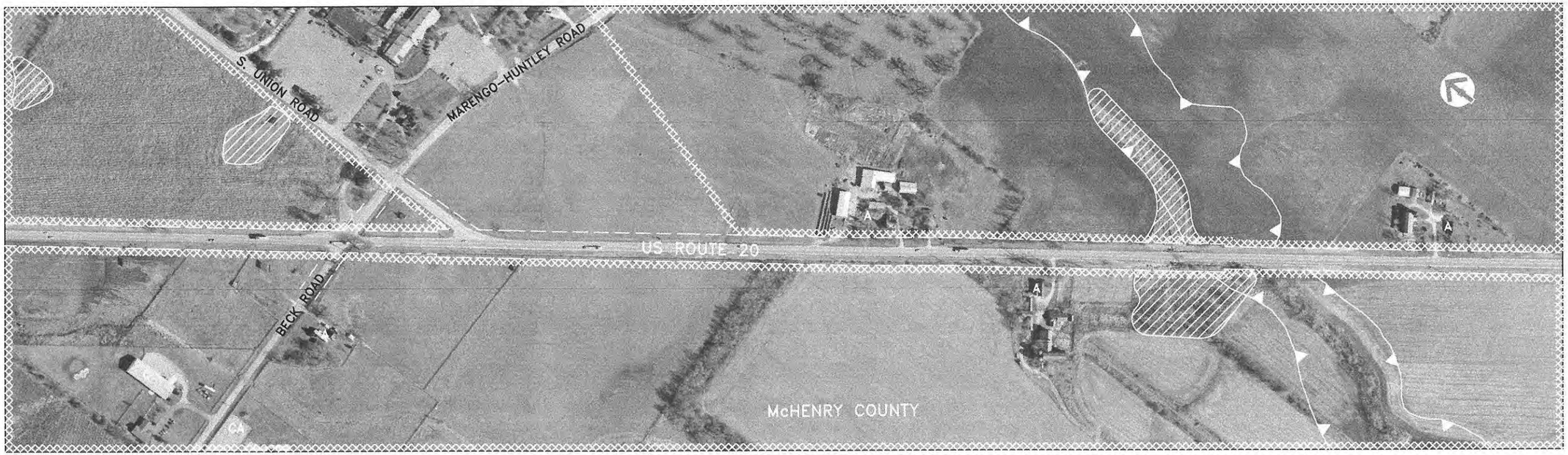
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-10



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U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-11

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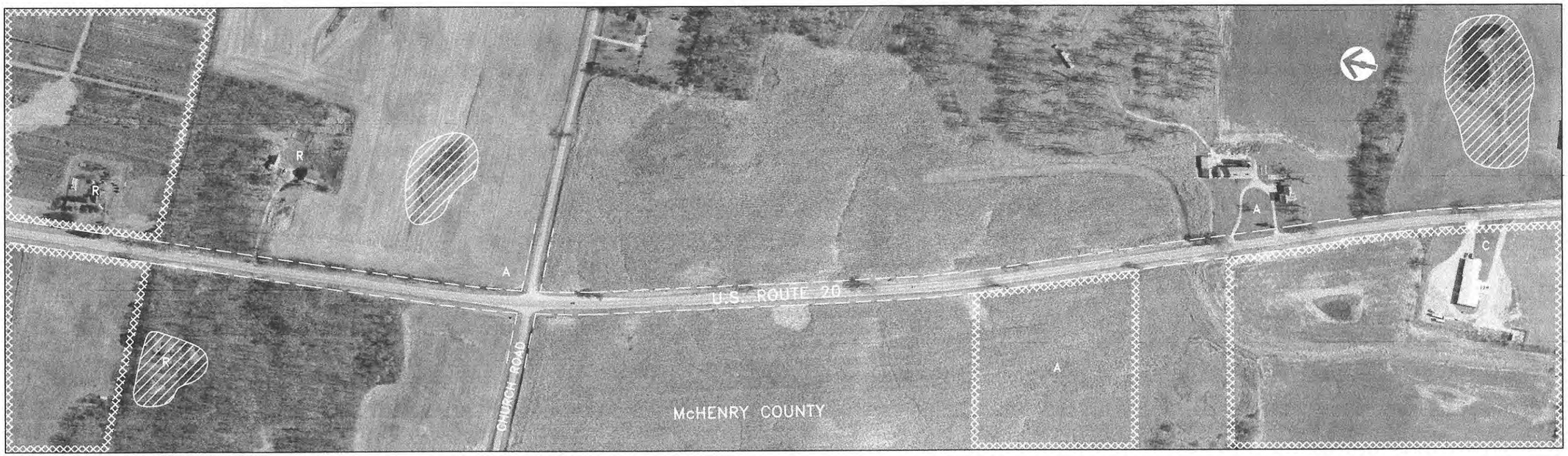

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OH	OFFICE HIGH RISE (>3 FLOORS)
C	COMMERCIAL RETAIL/SERVICE
CA	COMMERCIAL AGRICULTURE (NURSERY, ETC.)
CR	COMMERCIAL RECREATION (GOLF COURSE, ETC.)
I	INDUSTRIAL/WAREHOUSE
+	CHURCH/TEMPLE (NAME)
S	SCHOOL (NAME)
*	CEMETERY (NAME)
G	GOVERNMENT/INSTITUTION (FIRE, POLICE, ETC.)
P	PARK/FOREST PRESERVE (NAME)
U	UTILITY
E	EXTRACTION (MINING & GRAVEL)
A	AGRICULTURE
V	VACANT
()	PLANNED USE/JURISDICTION
----	PLANNED USE/JURISDICTION BOUNDARY
-·-·-	MUNICIPAL BOUNDARY
— —	EXISTING RIGHT OF WAY

NOTE: CATEGORY INDICATES PREDOMINANT LAND USE

Illinois Department of Transportation

STRA Strategic Regional Arterial Planning Study

Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources Inc.

0 200 400 800
SCALE IN FEET

U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-13

Segment 3
Shady Lane to Harmony Road

RECOMMENDED PLAN

Exhibits C-8 through C-14

See Segment 4 for Exhibit C-14

PROPOSED LANE CONFIGURATION

PROPOSED SIGNAL SPACING

PROPOSED ACCESS CONTROL

FOR SHEETS C-8 THROUGH C-9, PROPOSED IMPROVEMENTS TO BE DETERMINED THROUGH A U.S. ROUTE 20 BYPASS FEASIBILITY STUDY OF THE CITY OF MARENGO.

SEE EXHIBIT D-1 FOR BYPASS CORRIDOR STUDY AREA.

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
- PROPOSED LANE ARRANGEMENT
- EXISTING LANE ARRANGEMENT
- # PROPOSED NUMBER OF LANES
- EXISTING R.O.W. LINE
- FUTURE R.O.W. LINE
- ADDITIONAL R.O.W.
- BARRIER/GRASS MEDIAN

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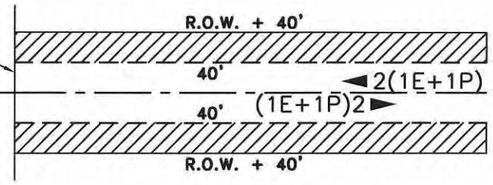
U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-8 THROUGH C-9

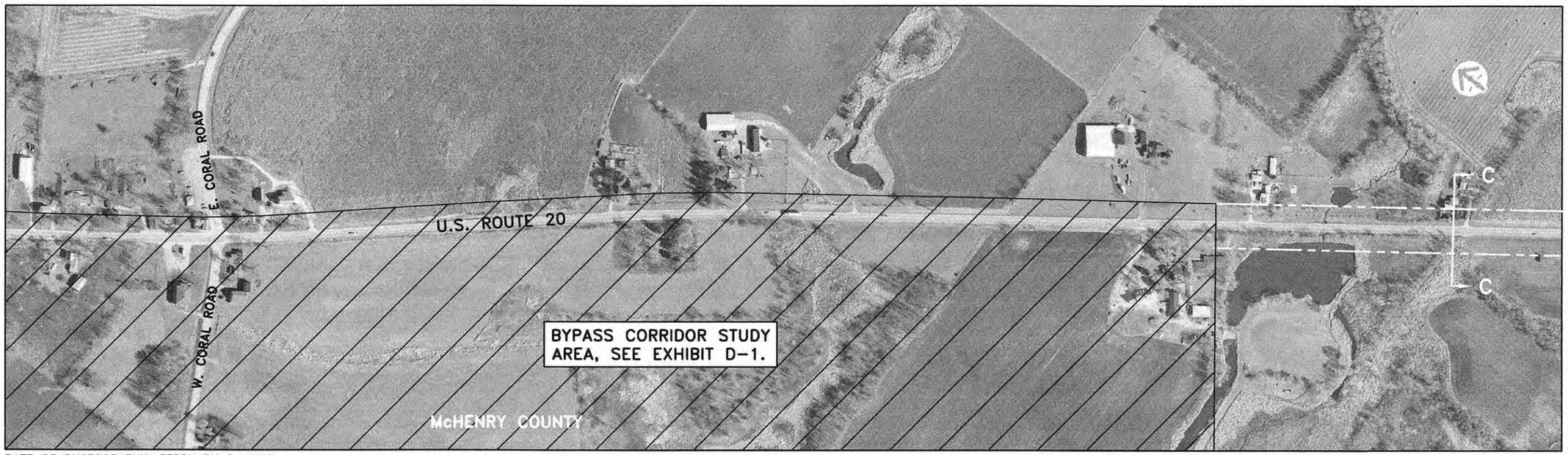
PROPOSED LANE CONFIGURATION

LOCATION TO BE DETERMINED BASED ON U.S. ROUTE 20 BYPASS FEASIBILITY STUDY



PROPOSED SIGNAL SPACING

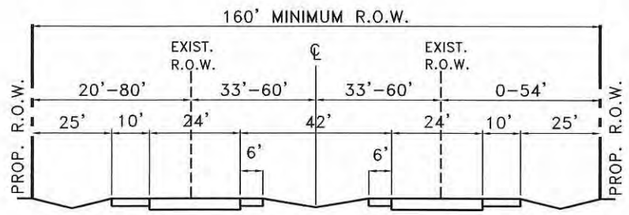
PROPOSED ACCESS CONTROL



DATE OF PHOTOGRAPHY: FEBRUARY 3, 1997

SEGMENT 3

PROPOSED IMPROVEMENTS TO BE DETERMINED THROUGH A U.S. ROUTE 20 BYPASS FEASIBILITY STUDY OF THE CITY OF MARENGO.



SECTION C-C
MARENGO BYPASS TO HARMONY ROAD

RECOMMENDED CROSS SECTION

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
- PROPOSED LANE ARRANGEMENT
- EXISTING LANE ARRANGEMENT
- # PROPOSED NUMBER OF LANES
- EXISTING R.O.W. LINE
- FUTURE R.O.W. LINE
- ADDITIONAL R.O.W.
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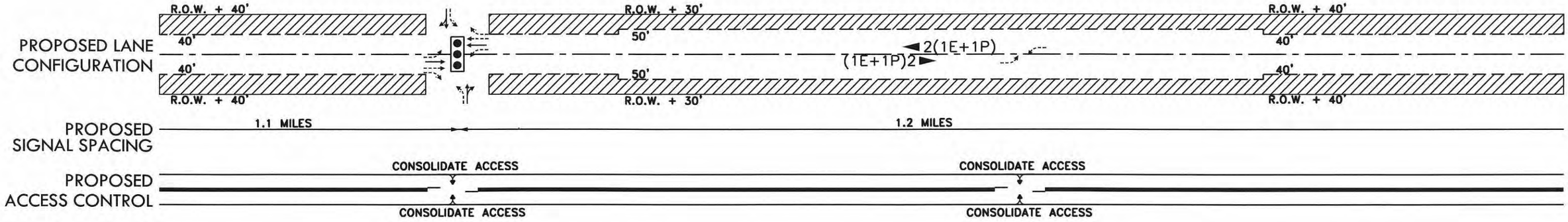
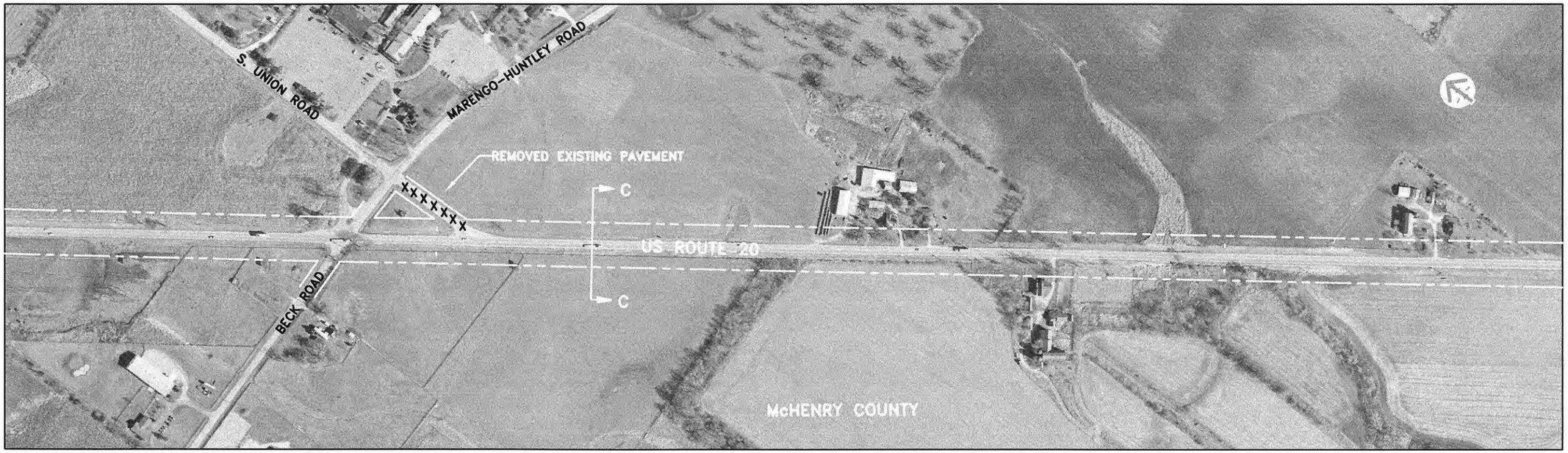
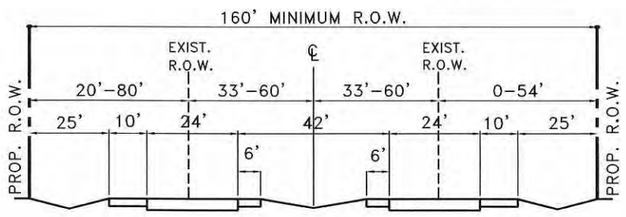
U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-10





DATE OF PHOTOGRAPHY: FEBRUARY 3, 1997

SEGMENT 3



SECTION C-C
MARENGO BYPASS TO HARMONY ROAD

RECOMMENDED CROSS SECTION

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
- PROPOSED LANE ARRANGEMENT
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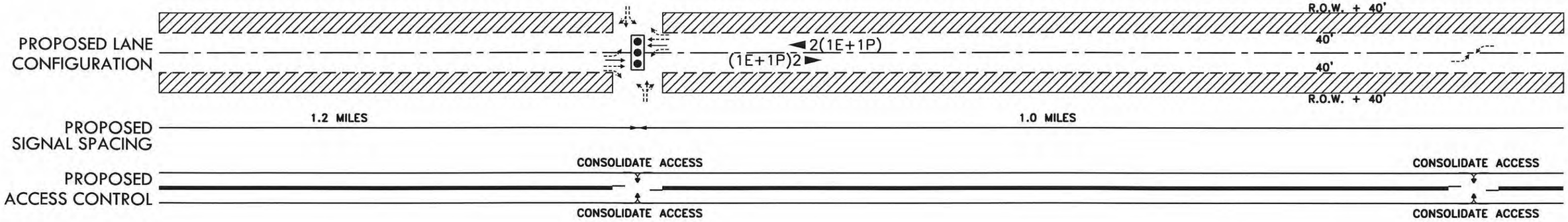
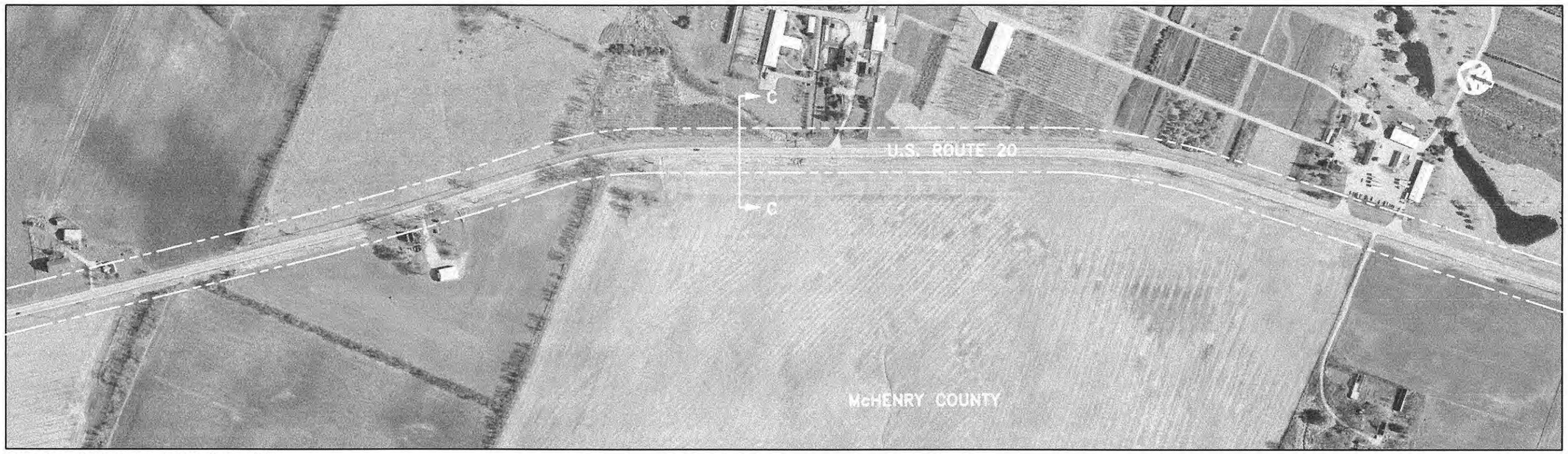
SRA Strategic Regional Arterial Planning Study

U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-11





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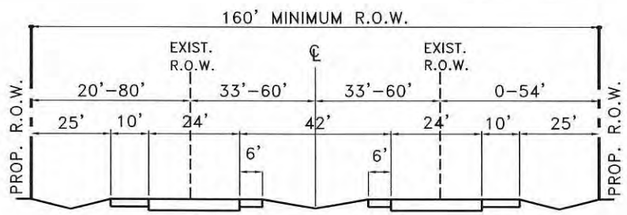
SEGMENT 3



SECTION C-C
MARENGO BYPASS TO HARMONY ROAD

RECOMMENDED CROSS SECTION

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
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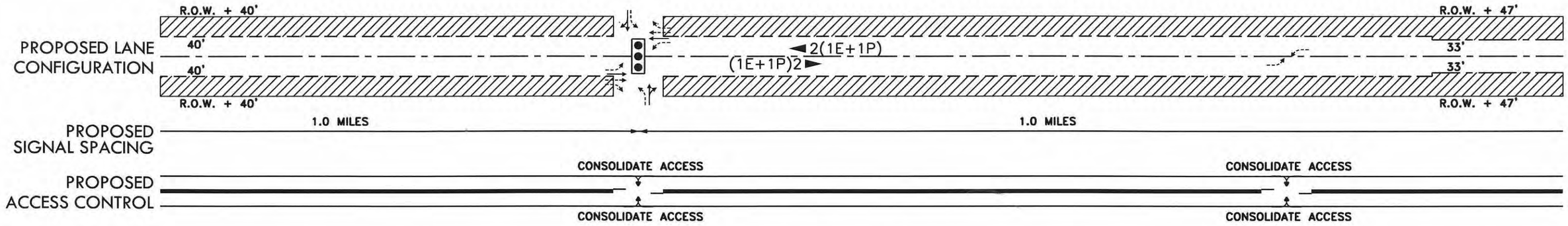
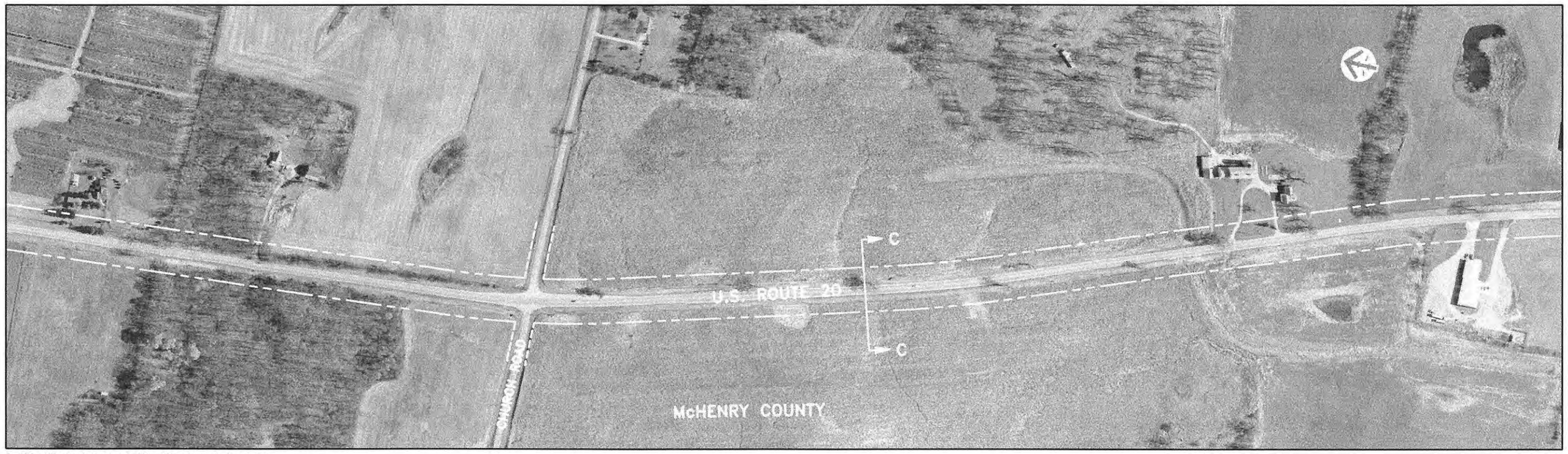
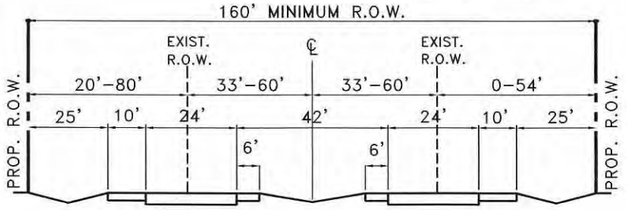
U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-12





DATE OF PHOTOGRAPHY: FEBRUARY 3,1997

SEGMENT 3



SECTION C-C
MARENGO BYPASS TO HARMONY ROAD

RECOMMENDED CROSS SECTION

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
- PROPOSED LANE ARRANGEMENT
- EXISTING LANE ARRANGEMENT
- # PROPOSED NUMBER OF LANES
- EXISTING R.O.W. LINE
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SCALE IN FEET

U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-13

Segment 4
Harmony Road to Interstate 90

3.4 Segment 4: Harmony Road to Interstate 90

3.4.1 Location

Segment 4 extends along U.S. Route 20 from Harmony Road to Interstate 90 (see Figure 3.1). The segment is approximately 1.6 miles in length and is located in McHenry County, Kane County, unincorporated Harmony, and the Village of Hampshire.

3.4.2 Existing Facility Characteristics

Existing facility characteristics for this segment are shown on Exhibits A-14 and A-15.

Right-of-Way - The existing right-of-way in this segment varies from 66 feet to 120 feet in width.

Roadway Characteristics - The existing cross section in this segment consists of one 12-foot travel lane in each direction with a median in selected locations. A gravel shoulder with open ditch drainage is typical for this segment. Existing typical sections for this segment are included on Exhibits A-14 and A-15.

Traffic Volumes - Illinois Department of Transportation Traffic Maps indicate that for 1997 the average annual daily traffic for this segment varied from 8,000 to 8,500 vehicles per day.

Accidents - There are no high accident locations in this segment.

Parking, Sidewalks, and Frontage Roads - There are no on-street parking spaces, sidewalks, or frontage roads in this segment.

Traffic Control/Intersection Configuration - There is one traffic signal in this segment which is located at the Interstate 90 Ramp intersection. Existing lane configurations for this intersection is shown on Exhibit A-15.

Structures - There are two existing structures in this segment which are described in Table 3.4.1.

Transit - There are no existing transit facilities in this segment.

Table 3.4.1
Existing Structures

IDOT Structure Number	Facility Carried	Feature Crossed	Width	Length	Horizontal Clearance on SRA	Vertical Clearance on SRA
045-9916	Eastbound Interstate 90	U.S. Route 20	34.5'	199'	36'	14.5'
045-9917	Westbound Interstate 90	U.S. Route 20	34.5'	199'	36'	14.5'

3.4.3 Existing Environmental Characteristics

The existing environmental characteristics for Segment 4 of U.S. Route 20 are shown on Exhibits B-14 and B-15.

Lakes/Streams/Wetlands/Floodplains - Floodplain crosses U.S. Route 20 directly southeast of the intersection with Getty Road. Several small wetlands abut both sides of U.S. Route 20 between the Interstate 90 bridge and the Interstate 90 access ramps.

Structures with Historical Significance - There are no sites of documented historical significance located along this segment.

Hazardous Waste/LUST Sites - There are no hazardous waste or LUST sites documented by the Illinois Environmental Protection Agency along this segment.

Threatened or Endangered Species - There are no threatened or endangered species known to exist along this segment of the corridor, according to the Illinois Department of Natural Resources.

Prime Farmland - According to the Natural Resources Conservation Service, prime farmland abuts a majority of U.S. Route 20, north of the Interstate 90 access ramps.

3.4.4 Existing Land Use Characteristics

Existing land use characteristics for this segment are shown on Exhibits B-14 and B-15.

Type and Intensity of Development - North of the Interstate 90 access ramps the primary land use in this segment is agriculture. Between the access ramps and Interstate 90 the primary land use is automobile oriented commercial.

Planned Development – An industrial development is proposed north and east of the U.S. Route 20 and Dietrich Road area.

3.4.5 Recommended SRA Improvements

The recommended plan for this segment is shown on Exhibits C-14 and C-15.

Roadway - The recommendation for this segment is to widen U.S. Route 20 to provide two 12-foot travel lanes in each direction with an 18-foot barrier median. Provide 10-foot wide shoulders with an open drainage system.

Traffic Control/Intersection Configuration – The Interstate 90 ramp signalized intersection with U.S. Route 20 is recommended to be realigned in order to improve traffic operations. Intersection Detail D-2 shows the proposed reconfiguration.

All recommended future signals should be installed only at the locations shown and only when the signal warrants recommended for SRA routes are met. Signal warrants for SRA routes are discussed in Section 10.4.2 of the Strategic Regional Arterial Design Concept Report (1994). Traffic signal interconnection is recommended.

Access Management - Future access locations will be restricted to right-in/right-out only except where full access locations are shown.

Structures - The I-90 overpass will need to be widened to accommodate the SRA recommendations. The I-90 span can only accommodate two lanes of traffic. The modifications are shown in Table 3.4.2.

Table 3.4.2
Structure Modifications

IDOT Structure Number	Facility Carried	Feature Crossed	Existing Width	Recommendation
045-9916	Interstate 90	U.S. Route 20	36'	Widen span to accommodate recommended section.
045-9917	Interstate 90	U.S. Route 20	36'	Widen span to accommodate recommended section.

Transit - Park and Pool lots should be implemented at the Interstate 90 interchange area, major traffic generators such as schools, shopping centers, forest preserves and major employment centers.

3.4.6 Right-of-Way Requirements

Additional right-of-way will be required for this segment only in designated areas. The existing right-of-way varies from 66 feet to 120 feet and with the recommended roadway plan of 120 feet of right-of-way, 0 to 54 additional feet will be required. The necessary right-of-way can be taken from both sides of U.S. Route 20 to lessen the impacts. See Exhibit C-14 and C-15 for right-of-way acquisition details.

3.4.7 Environmental Considerations

The variable acquisition of up to 54 feet of right-of-way will result in the loss of prime agricultural land north of the Interstate 90 access ramps. There are no anticipated impacts to wetlands within Segment 4.

3.4.8 Land Use Considerations

Recommended roadway improvements within Segment 4 would require 20 to 54 feet of right-of-way acquisition along both sides of U.S. Route 20. This acquisition will reduce the front yards of residences north of the Interstate 90 access ramps. No significant impacts to land use are expected south of the Interstate 90 access ramps since additional right-of-way will not be acquired in this area. Future access and setbacks along the portion of this segment planned for residential, commercial, and industrial uses should be coordinated with SRA improvements.

3.4.9 Construction/Right-of-Way Cost Estimates

The cost estimate for Segment 4 is shown in Table 3.4.3. This construction cost estimate is based on 1991 unit prices.

3.4.10 Short Term/Low Cost Improvements

Improvements which are consistent with SRA policy, and are either low cost or implemented prior to construction of the overall SRA improvement are recommended for short term (1-5 years) implementation. There are no short term/low cost improvements for this segment.

3.4.11 Ultimate (Post 2020) Improvements

Improvements which are consistent with SRA policy for suburban or rural routes but are considered best implemented beyond the SRA planning horizon are recommended for Post 2020 consideration. There are no Ultimate (post 2020) improvements recommended for this segment.

3.4.12 Crossing SRA Routes

There are no crossing SRA routes within Segment 4 of the U.S. Route 20 SRA.

Table 3.4.3
Construction Cost Estimate
Segment 4 - Harmony Road to Interstate 90

Recommended Improvements	Estimated Cost
Roadway	$4,838,000
Intersection Improvements	$850,000
Structure Modifications	$2,110,000
Right-of-Way Acquisition	$318,000
Total - Recommended Improvements	**$8,116,000**

Note: This construction cost estimate is based on 1991 unit prices.

Segment 4
Harmony Road to Interstate 90

EXISTING FACILITY CHARACTERISTICS

Exhibits A-14 and A-15

EXISTING LANE CONFIGURATION

R.O.W. 33' — 1 — 1 — 33' R.O.W.

R.O.W. 40' — 1 — 1 — 40' R.O.W.

SIGNAL SPACING: > 8 MILES

AVERAGE DAILY TRAFFIC: 6,600 — 8,000

HIGH ACCIDENT LOCATIONS

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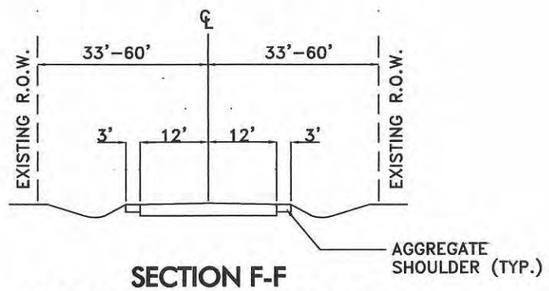

SECTION F-F
SHADY LANE TO GETTY ROAD

LEGEND

- SIGNALIZED INTERSECTION
- LANE ARRANGEMENTS AT KEY INTERSECTIONS
- (P) PARKING ALLOWED
- (NR) NO PARKING RESTRICTIONS
- [B] DESIGNATED BUS STOP
- [CTA] RAPID TRANSIT STATION
- [METRA] METRA STATION
- HIGH ACCIDENT LOCATION (ACTUAL/CRITICAL)
- ◄# EXISTING NUMBER OF LANES

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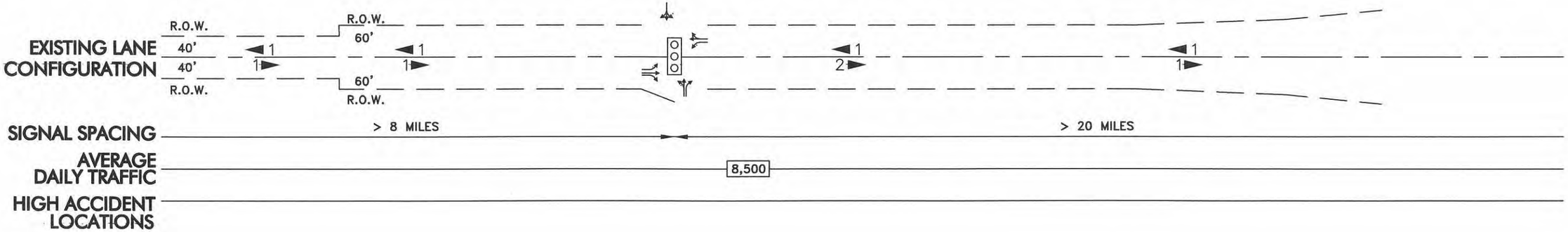
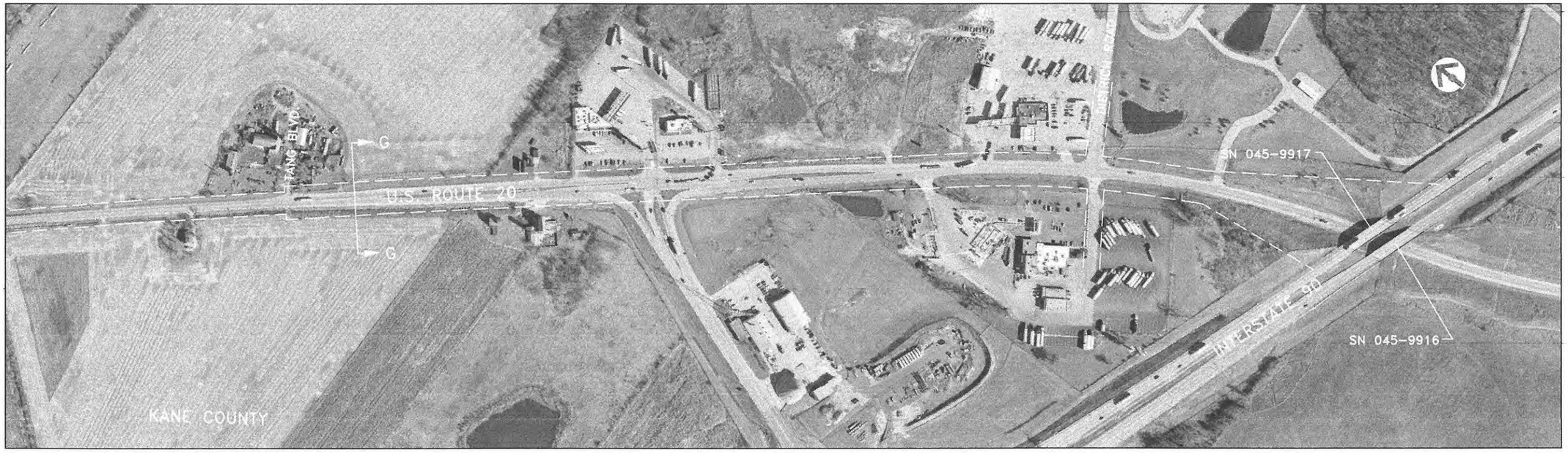
SCALE IN FEET

U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-14





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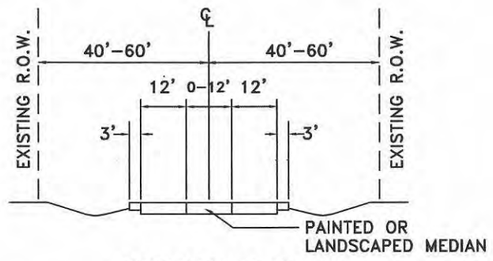

SECTION G-G
GETTY ROAD TO INTERSTATE 90

LEGEND

- SIGNALIZED INTERSECTION
- LANE ARRANGEMENTS AT KEY INTERSECTIONS
- (P) PARKING ALLOWED
- (NR) NO PARKING RESTRICTIONS
- [B] DESIGNATED BUS STOP
- [CTA] RAPID TRANSIT STATION
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- HIGH ACCIDENT LOCATION (ACTUAL/CRITICAL)
- ◄# EXISTING NUMBER OF LANES

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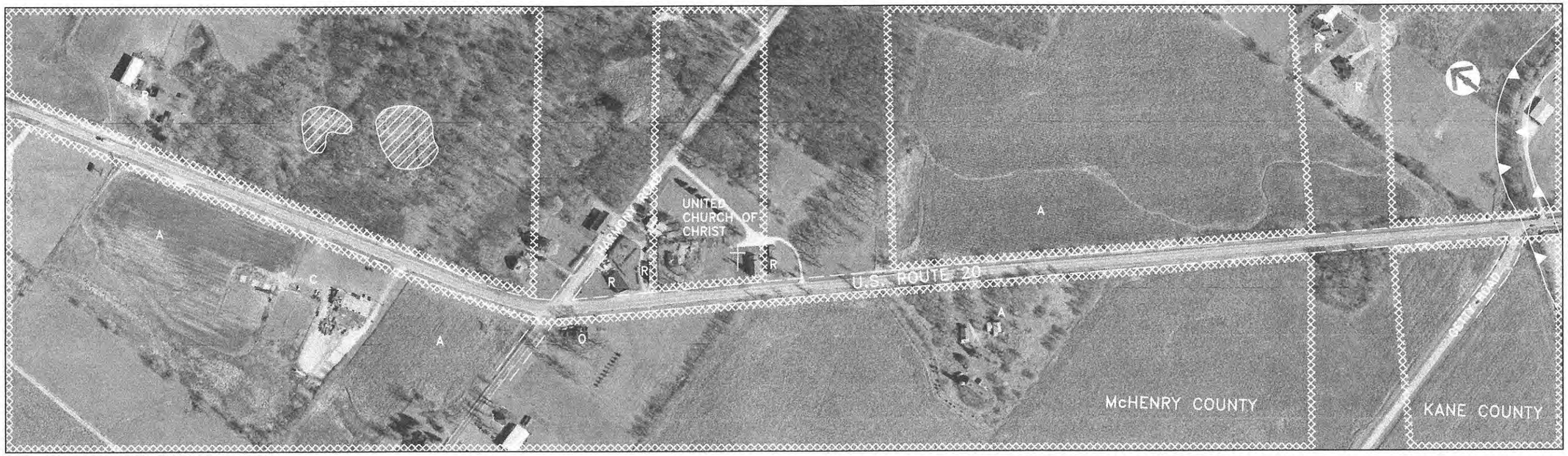
U.S. ROUTE 20
EXISTING FACILITY CHARACTERISTICS
EXHIBIT A-15

Segment 4
Harmony Road to Interstate 90

LAND USE AND ENVIRONMENTAL CONDITIONS

Exhibits B-14 and B-15



DATE OF PHOTOGRAPHY: FEBRUARY 3,1997

ENVIRONMENTAL FACTORS LEGEND

- C1 HAZARDOUS WASTE SITE
- LEAKING UNDERGROUND STORAGE TANK
- H1 HISTORIC BUILDING/DISTRICT
- WETLAND
- THREATENED AND ENDANGERED SPECIES HABITAT
- PRIME AGRICULTURAL LAND
- FLOODPLAIN/FLOODWAY

LAND USE LEGEND

R	SINGLE-FAMILY RESIDENTIAL
RM	MULTI-FAMILY RESIDENTIAL (UP TO 3 FLOORS)
RH	HIGH RISE RESIDENTIAL (>3 FLOORS)
MH	MOBILE HOME PARK
O	OFFICE (UP TO 3 FLOORS)
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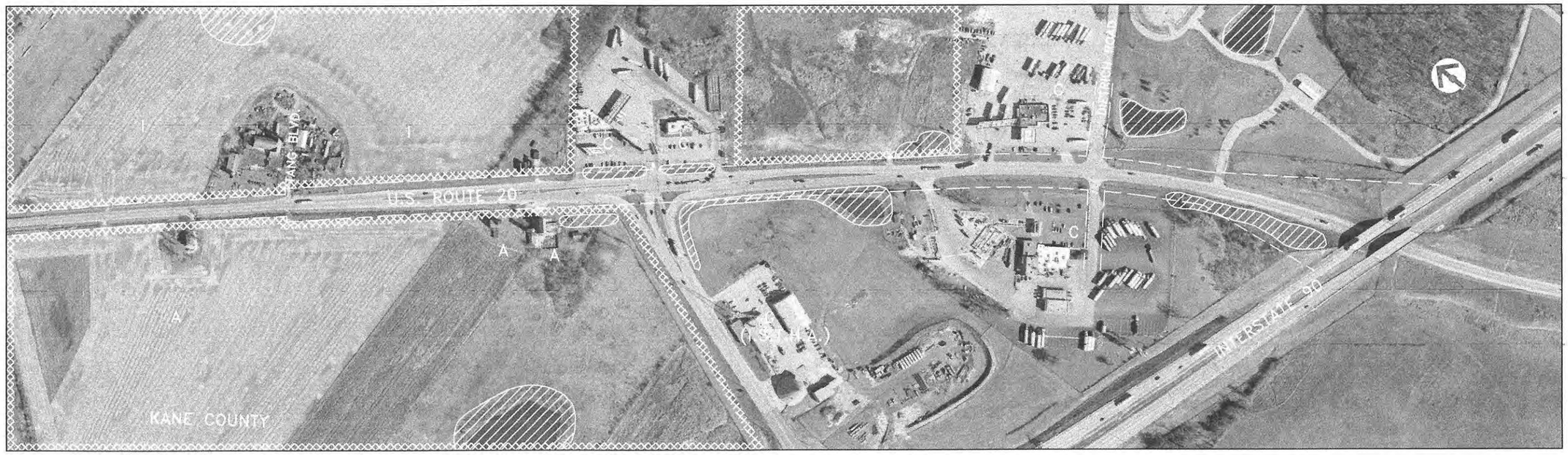
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-14



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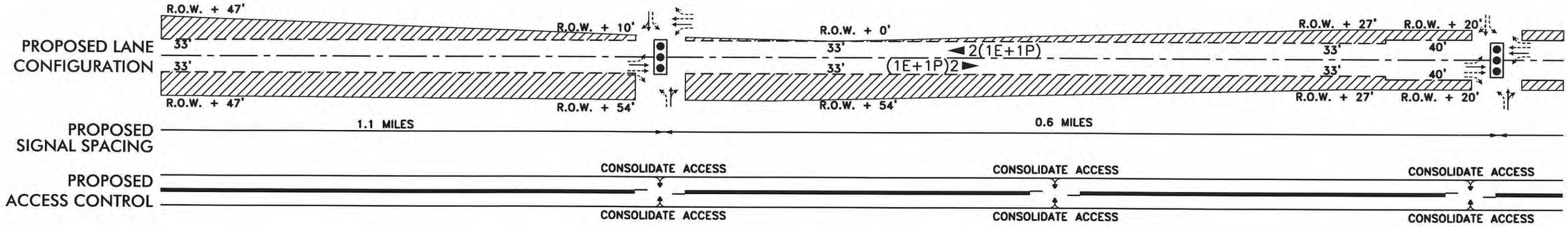
SCALE IN FEET

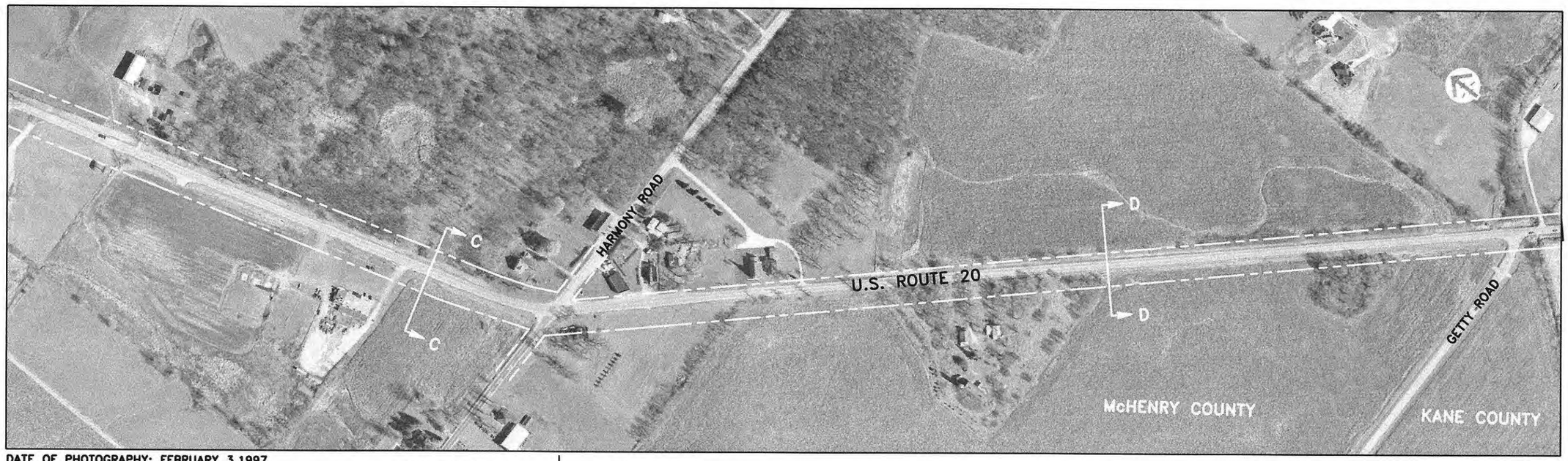
U.S. ROUTE 20
LAND USE AND ENVIRONMENTAL CONDITIONS
EXHIBIT B-15

Segment 4
Harmony Road to Interstate 90

RECOMMENDED PLAN

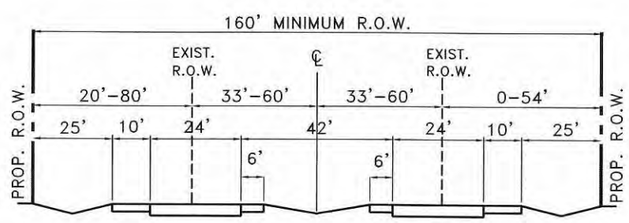
Exhibits C-14 and C-15





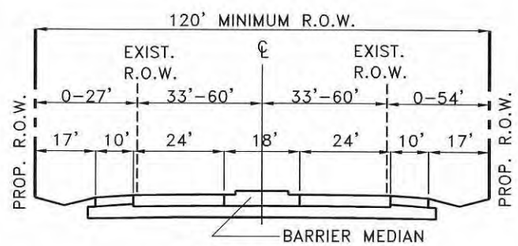
DATE OF PHOTOGRAPHY: FEBRUARY 3,1997

SEGMENT 3 | SEGMENT 4



SECTION C-C
MARENGO BYPASS TO HARMONY ROAD

RECOMMENDED CROSS SECTION



SECTION D-D
HARMONY ROAD TO INTERSTATE 90

RECOMMENDED CROSS SECTION

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
- PROPOSED LANE ARRANGEMENT
- EXISTING LANE ARRANGEMENT
- # PROPOSED NUMBER OF LANES
- EXISTING R.O.W. LINE
- FUTURE R.O.W. LINE
- ADDITIONAL R.O.W.
- BARRIER/GRASS MEDIAN

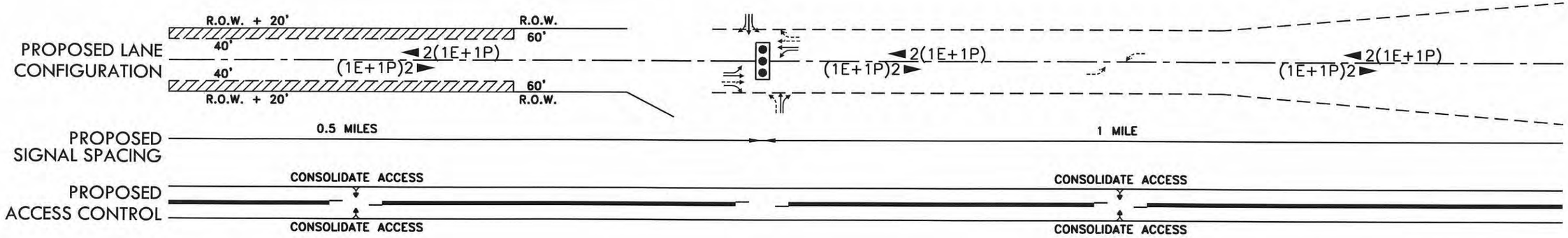
Illinois Department of Transportation

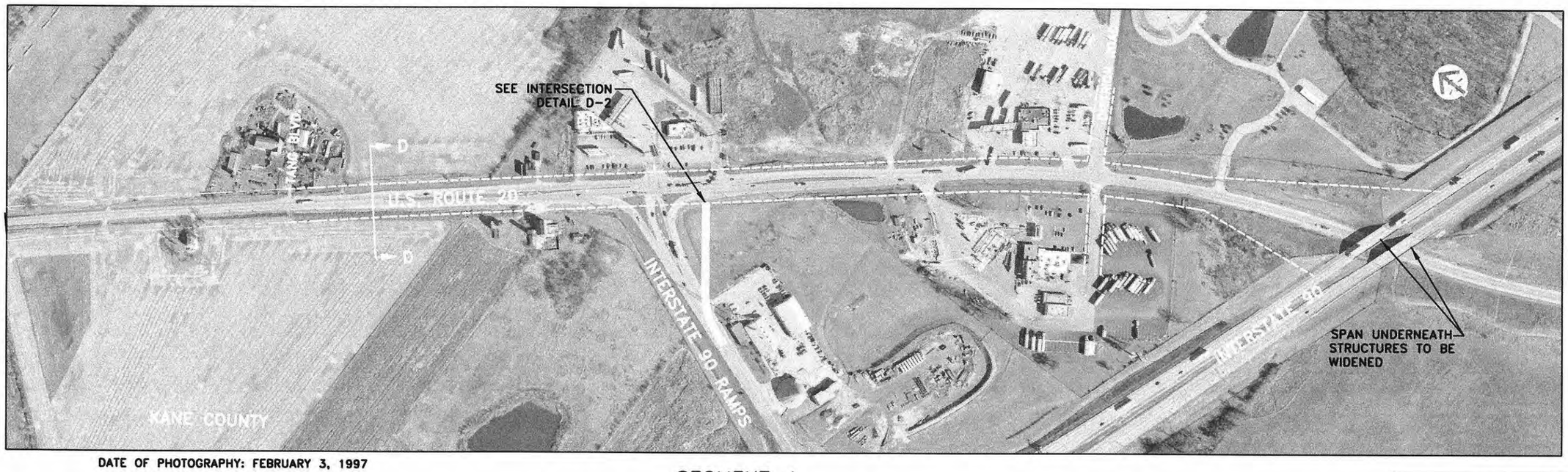
SRA Strategic Regional Arterial Planning Study

Prepared by: CIVILTECH ENGINEERING, INC.
In Association with: METRO Transportation Group
Shah Engineering, Inc. Planning Resources Inc.

0 200 400 800
SCALE IN FEET

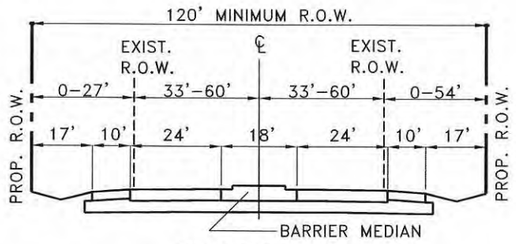
U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-14





DATE OF PHOTOGRAPHY: FEBRUARY 3, 1997

SEGMENT 4



SECTION D-D
HARMONY ROAD TO INTERSTATE 90

RECOMMENDED CROSS SECTION

LEGEND

- EXISTING TRAFFIC SIGNAL
- POTENTIAL TRAFFIC SIGNAL
- PROPOSED LANE ARRANGEMENT
- EXISTING LANE ARRANGEMENT
- # PROPOSED NUMBER OF LANES
- EXISTING R.O.W. LINE
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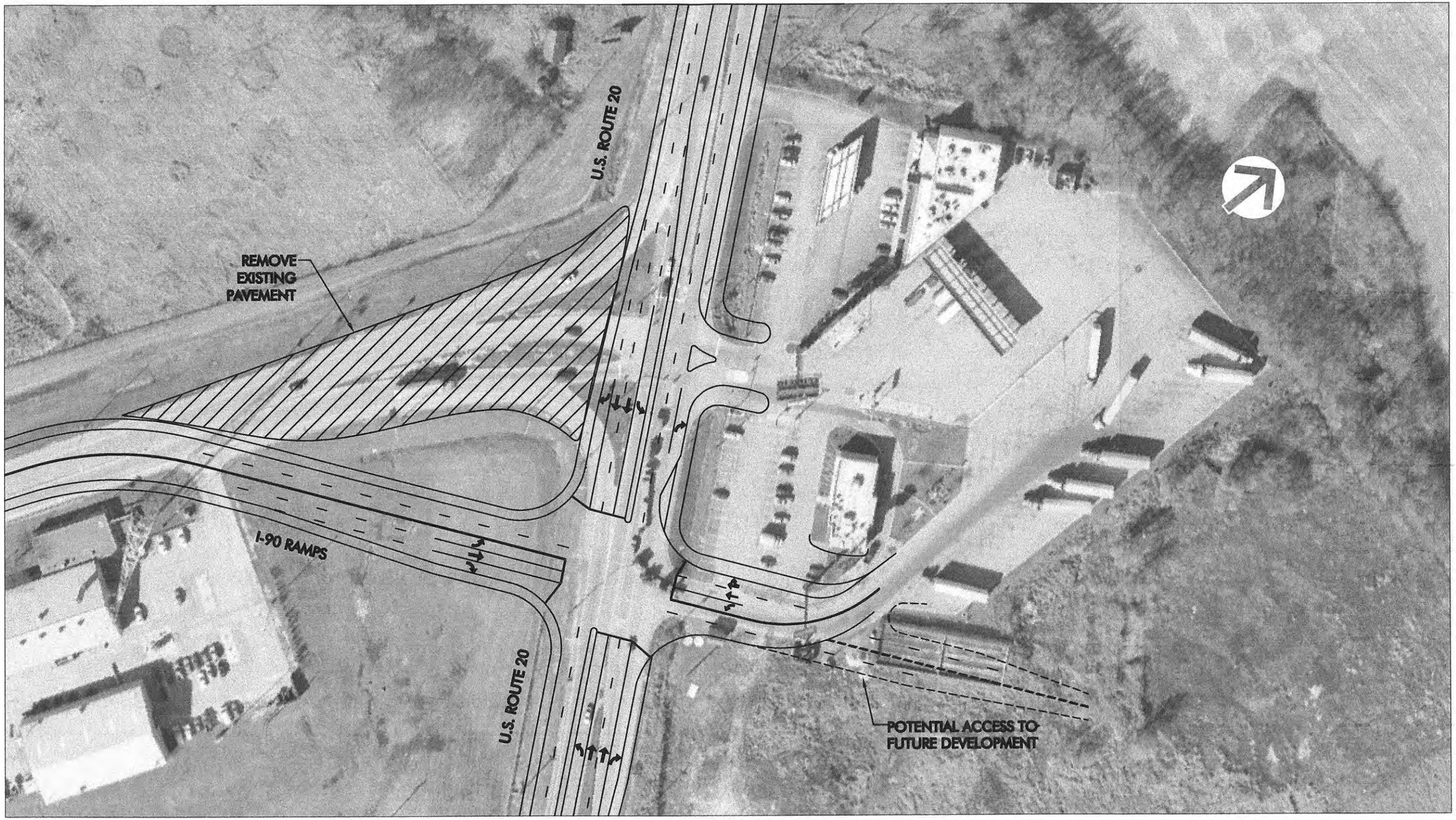
U.S. ROUTE 20
RECOMMENDED PLAN
EXHIBIT C-15

Segment 4

INTERSECTION DETAILS

U.S. Route 20/Interstate 90 Interchange

Exhibit D-2



INTERSECTION DETAIL

0 50 100
SCALE IN FEET

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Shah Engineering, Inc. Planning Resources Inc.

U.S. ROUTE 20 & IL-90 RAMPS
EXHIBIT D-2