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WISCONSIN

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A PLAN FOR THE ABATEMENT OF THROUGH TRAFFIC PROBLEMS IN THE VILLAGE OF WEST MILWAUKEE

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MEMORANDUM REPORT NUMBER 29

A PLAN FOR THE ABATEMENT OF THROUGH TRAFFIC PROBLEMS IN THE VILLAGE OF WEST MILWAUKEE

VILLAGE OF WEST MILWAUKEE MILWAUKEE COUNTY, WISCONSIN

Prepared by the Southeastern Wisconsin Regional Planning Commission P. O. Box 1607 Old Courthouse 916 N. East Avenue Waukesha, Wisconsin 53187-1607

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March 1988

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Memorandum Report No. 29

A PLAN FOR THE ABATEMENT OF THROUGH TRAFFIC PROBLEMS IN THE VILLAGE OF WEST MILWAUKEE AT THE TERMINUS OF THE STADIUM FREEWAY-SOUTH

INTRODUCTION

On November 11, 1987, the Village of West Milwaukee asked the Southeastern Wisconsin Regional Planning Commission to conduct a study of the through traffic problem which might remain in the Village following the construction of the new S. 43rd Street arterial connection to the Stadium Freeway-South (USH 41). Since the construction of the Stadium Freeway-South (USH 41) stub end at W. National Avenue in 1955, certain local land access streets in the Village of West Milwaukee have been used by through traffic as a connection between the freeway stub end and other arterials such as W. Beloit Road. Attempts have been made by the Village over the years to abate this traffic problem, but with limited success. Most recently, the Village acted to prevent anticipated safety, parking, noise, and congestion problems on local streets during the construction of the new S. 43rd Street arterial. The action taken consisted of installing barricades at the entrances to all streets between S. 47th and S. 54th Streets intersecting W. National Avenue.

This report identifies the through traffic problems on local land access streets in the Village which may be expected to remain following the completion of the new S. 43rd Street arterial through the Village. The study area consists of that area which has historically experienced through traffic problems, and is bounded by W. National Avenue on the north, S. 43rd Street on the east, W. Greenfield Avenue on the south, and S. 56th Street on the west. Alternative means of abating the residual through traffic problems are presented and evaluated, and the best means identified and recommended.

HISTORY OF THROUGH TRAFFIC PROBLEM IN THE VILLAGE AT THE STADIUM FREEWAY-SOUTH (USH 41) STUB END

The original freeway system plan for Milwaukee County called for construction of the Stadium Freeway-South (USH 41) between the East-West Freeway (IH 94) and the Airport Freeway (IH 894). The initial segment of this freeway between the present East-West Freeway (IH 94) and W. National Avenue was completed in 1955, but was connected to the north only to Milwaukee County Stadium. At that time, S. 46th Street provided the connection for southbound Stadium Freeway traffic to W. Beloit Road or S. 44th Street via W. Scott Street. South 45th Street provided the connection to the northbound Stadium Freeway from W. Beloit Road and S. 43rd Street, both via W. Scott Street.

In 1962, the Stadium Freeway was extended to the north and the first segments of the East-West Freeway were built. Traffic counts taken in April 1962 indicated average weekday traffic volumes of 5,000 vehicles on S. 45th Street and 3,500 vehicles on S. 46th Street. The traffic volumes on these streets continued to increase as more of the Milwaukee area freeway system was constructed. Traffic counts taken in May 1965 indicated average weekday traffic volumes of 8,000 vehicles on S. 46th Street, and 6,700 vehicles on S. 45th Street, or a total through traffic over these streets of about 14,000 vehicles per average weekday.

In 1975, S. 45th Street and S. 46th Street were closed at W. National Avenue by the Village. As a result, traffic between the freeway stub end and the S. 43rd Street and S. 44th Street one-way pair was routed primarily over W. National Avenue, an arterial street. Also, traffic between the freeway stub end and W. Beloit Road was routed over S. 47th and S. 48th Streets. Counts taken in April 1978 indicated an average weekday traffic volume of 2,790 vehicles on S. 48th Street and 1,860 vehicles on S. 47th Street, or a total through traffic volume over these streets of about 4,000 vehicles per average weekday. Traffic counts taken in October 1984 indicated that the amount of through traffic on these two streets has remained relatively stable, with an average weekday traffic volume of 2,100 vehicles on S. 47th Street and 2,500 vehicles on S. 48th Street.

As already noted, in anticipation of the construction of the new S. 43rd Street arterial, the Village closed all north-south streets from S. 47th Street to S. 54th Street at W. National Avenue. Without such action, it was anticipated that S. 47th and S. 48th Streets would each carry average weekday traffic volumes of 7,000 vehicles during the construction period. The closure of S. 47th and S. 48th Streets at W. National Avenue was deemed necessary by village officials to prevent the excessive movement of through traffic on those two residential land access streets, and thereby promote traffic safety and a good residential environment along these streets. Moreover, the closure of all north-south streets in the Village beyond S. 48th Street was deemed necessary to avoid similar problems on S. 49th Street through S. 54th Street.

Following construction of the new S. 43rd Street arterial, it may be expected that a substantial proportion, about 1,500, or 40 percent, of the 4,000 vehicles per average weekday that have used S. 47th and S. 48th Streets to travel between the freeway stub end and W. Beloit Road will no longer use these local streets, but will instead use the new S. 43rd Street arterial and W. Greenfield Avenue. The remaining 2,500 vehicles per average weekday may be expected to continue to use S. 47th and S. 48th Streets to travel between the Stadium Freeway and W. Beloit Road. It was the purpose of this study to develop, evaluate, and recommend alternative measures to encourage and divert this expected through traffic from local residential land access streets to arterial streets.

VILLAGE ARTERIAL STREET SYSTEM

The existing arterial street system in the Village of West Milwaukee and surrounding area--including the new S. 43rd Street arterial presently under construction--is shown on Map 1, along with the curb-to-curb widths of each arterial street segment.

The total street and highway system of a community must serve several important functions, including, among others, the free movement of through vehicular traffic; the movement of pedestrian and bicycle traffic; and the access of vehicular, pedestrian, and bicycle traffic to abutting land uses. Because two of these functions--traffic movement and land access--are basically incompatible, street and highway system design must be based upon a functional grouping

Map 1

EXISTING ARTERIAL STREET SYSTEM IN THE VILLAGE OF WEST MILWAUKEE: 1988



LEGEND

64' D Arterial Street or Highway Pavement Width Divided Arterial Street or Highway

4000 FEET

GRAPHIC SCALE

of the facilities concerned. The individual facilities constituting the total street and highway system of a community are thus classified on the basis of the primary function served, ranging from providing a high degree of travel mobility while providing limited access to adjacent land uses to providing a low degree of travel mobility while providing a high degree of access to adjacent land uses. At least three functional classifications of streets and highways should be recognized: 1) arterial streets, 2) collector streets, and 3) land access streets.

Arterials are defined as streets and highways that are intended to serve the through movement of fast and heavy traffic, providing transportation service between major subareas of an urban area or through the area. Together, the arterials should form an integrated, areawide system, located and designed to properly carry the imposed traffic loadings. Access to abutting property may be a secondary function of some types of arterial streets and highways, but it should always be subordinate to the primary function of traffic movement.

Collector streets are defined as streets and highways that are intended to serve primarily as connections between the arterial system and the land access street system. In addition to collecting and distributing traffic from and to the arterial streets, the collector streets usually provide a secondary function of providing access to abutting property.

Land access streets are defined as streets and highways that are intended to serve primarily as a means of access to abutting properties, principally serving the residential areas of a community. Together, the land access streets and collectors are commonly referred to as local streets. These streets should not carry any through traffic.

The arterial system for the Village of West Milwaukee--as identified by the Regional Planning Commission and shown on Map 1--was identified in consideration of the existing and proposed land uses to be served; desirable arterial spacing; current and probable future traffic volumes and trip lengths; and relation to other arterials in adjacent communities.

Map 2 identifies the traffic-carrying capacity of each arterial street in the Village and surrounding area, including the capacity of the new S. 43rd Street arterial as presently being constructed. Identified on this map are the number of traffic lanes provided on each arterial segment. Also identified is whether or not parking is prohibited during the peak traffic period or all day to provide additional lanes for the movement of traffic.

The number of traffic lanes is the basic determinant of the traffic-carrying capacity of a street or highway. A two-traffic-lane arterial generally has a design capacity of 13,000 vehicles per average weekday; a four-lane undivided arterial has a design capacity of 17,000 vehicles per average weekday; a four-lane divided arterial has a design capacity of 25,000 vehicles per average weekday; and a six-lane divided arterial has a design capacity of 35,000 vehicles per average weekday.

The average weekday traffic volumes on each segment of arterial street in the Village, and on S. 47th and S. 48th Streets, prior to construction of the new S. 43rd Street arterial in 1984 are shown on Map 3. The expected average weekday traffic volumes on village arterial streets and on S. 47th and S. 48th



TRAFFIC-CARRYING CAPACITY OF THE ARTERIAL STREET SYSTEM IN THE VILLAGE OF WEST MILWAUKEE: 1988

Map 2

LEGEND



Number of Traffic Lanes Parking Permitted Both Sides of Street Parking Permitted One Side of Street No Parking Permitted

GRAPHIC SCALE 0 2000 4000 FEET

Source: SEWRPC.

5

Map 3

EXISTING AVERAGE WEEKDAY TRAFFIC VOLUMES IN THE VILLAGE OF WEST MILWAUKEE: 1984



GRAPHIC SCALE

2000

4000 FEET

Streets following the completion of the construction of the new S. 43rd Street arterial in the year 1988 are shown on Map 4.

ALTERNATIVE ACTIONS TO ABATE THROUGH TRAFFIC IN THE VILLAGE AT THE STADIUM FREEWAY-SOUTH (USH 41) TERMINUS

A number of alternative actions to abate the movement of through traffic over local land access streets were considered, in addition to a "do nothing" alternative, which would maintain the existing street system in the study area after the construction of the new S. 43rd Street arterial. Under the do nothing alternative, the barricades at the entrances to the local streets intersecting W. National Avenue between S. 47th Street and S. 54th Street would be removed by the Village following construction of the S. 43rd Street arterial and the conversion of S. 47th and S. 48th Streets between W. National Avenue and W. Greenfield Avenue from their current one-way operation to two-way operation.

Proposed Two-Way Frontage Road Along W. National Avenue

One alternative considered to abate the residual movement of through traffic over local land access streets while maintaining local access to the residential areas concerned following the construction of the new S. 43rd Street arterial was the construction of a two-way frontage, or service, road along W. National Avenue between S. 47th Street and S. 54th Street. Realignment of W. National Avenue to the north from the Stadium Freeway-South (USH 41) terminus to S. 56th Street would be required. An estimated 52 feet of additional rightof-way on the north side of W. National Avenue would be required to accommodate a 32-foot-wide service roadway of two traffic lanes and one parking lane, and a 20-foot-wide landscaped area separating the service road from W. National Avenue. Map 5 shows the proposed service road design, including the proposed access between the service road and W. National Avenue. These access points would be located at selected mid-block locations to discourage the movement of through traffic between the Stadium Freeway-South (USH 41) terminus and W. Beloit Road while maintaining access for study area residents. The pavement of the redesigned W. National Avenue would be maintained at its present curb-tocurb width of 48 feet, but it would be converted from two traffic lanes to four traffic lanes.

This alternative would have a capital cost of approximately \$1.5 million, including construction and acquisition of right-of-way for both the proposed service road and the realigned W. National Avenue.

This alternative would result in some circuitous travel to study area residents. More specifically, for those residing in the area bounded by W. National Avenue on the north, S. 47th Street on the east, W. Greenfield Avenue on the south, and S. 49th Street on the west, travel distance would be increased for travel oriented to and from the east on W. National Avenue, the increase being from one-tenth to one-third of a mile.

For those residing in the area bounded by W. National Avenue on the north, S. 52nd Street on the east, W. Greenfield Avenue on the south, and S. 54th Street on the west, travel distance would be increased for travel oriented to and from the west on W. National Avenue, the increase being one-tenth of a mile.

Map 4

ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES IN THE VILLAGE OF WEST MILWAUKEE FOLLOWING COMPLETION OF S. 43RD STREET CONSTRUCTION: 1988



GRAPHIC SCALE

2000

4000 FEET

Map 5

RECOMMENDED ALTERNATIVE OF A NEW TWO-WAY FRONTAGE ROAD ALONG W. NATIONAL AVENUE BETWEEN S. 47TH AND S. 54TH STREETS



語の語を見た 111111.52 USH 41

LEGEND

- PROPOSED RIGHT-OF-WAY LIMIT - CURB LAWN





Another disadvantage of this alternative is the need to acquire 52 feet of additional right-of-way from the Clement Zablocki Veterans Administration Medical Center. Acquisition of the right-of-way would require the concurrence of the Medical Center.

Advantages of this alternative include its potential to virtually eliminate the movement of through traffic over the residential land access streets concerned; the increased separation provided between the heavy traffic on W. National Avenue and the residential and commercial uses located along the south side of W. National Avenue; and the retention of on-street curb parking for, and access to, those residential and commercial uses. Another advantage of this alternative is the improved access that would be provided to the Veterans Administration Medical Center. Traffic movement between the Medical Center and W. National Avenue at its principal entrances and exits located at S. 47th and S. 48th Streets would be improved by eliminating one leg of each of the two intersections, by eliminating most conflicts with curb parking along W. National Avenue, and by increasing the number of traffic lanes on W. National Avenue from two to four.

This alternative will allow parking on the south side of the proposed frontage road adjacent to the commercial and residential uses presently located along the south side of W. National Avenue. A survey of the existing parking supply along W. National Avenue, which is shown in Table 1, established that there are presently 77 parking spaces located along the south side of W. National Avenue between S. 46th Street and S. 56th Street. With the construction of the two-way frontage road, there would be 101 spaces along the south side of the frontage road, the increase in the number of spaces being a result primarily of the four existing bus stops along W. National Avenue that would be retained along the new alignment of W. National Avenue. Furthermore, an additional 49 parking spaces would be possible if the landscaped separation between W. National Avenue and the frontage road was reduced in selected locations from 20 feet to 12 feet in width to provide an eight-foot-wide parking lane along the north side of the frontage road.

Additional Alternatives

Six other alternatives were considered for the abatement of through traffic in the study area, along with the do nothing alternative. These alternatives are described in Table 2, and an evaluation and comparison of these alternatives to the service road alternatives are presented in Table 3. Figures displaying these additional alternatives are shown in the appendix to this report.

Four of the additional six alternatives may, like the two-way frontage road alternative, be expected to virtually eliminate through traffic in the study area between the Stadium Freeway-South (USH 41) and W. Beloit Road. Three of these four alternatives would require major construction, although the attendant capital costs of between \$400,000 and \$1.2 million and attendant right-ofway acquisition costs would be substantially less than those of the two-way frontage road alternative. The major disadvantages of all these alternatives is that they may be expected to substantially reduce the convenience of access to the residents of the study area, and to require the use of circuitous routes in traveling to and from the residential areas concerned. The three additional alternatives, which may be expected to eliminate through traffic and entail major construction for implementation, include the construction of a one-way

Table 1

COMPARISON OF EXISTING PARKING SUPPLY AND POTENTIAL PARKING SUPPLY UNDER THE TWO-WAY FRONTAGE ROAD ALTERNATIVE ON W. NATIONAL AVENUE BETWEEN S. 46TH STREET AND S. 56TH STREET

	Existing	g Parking Supp	Proposed Parking Supply			
	North Side of W. National Avenue	South Side of W. National Avenue		South Side of Frontage Road	North Side of Frontage Road	
Block	Spaces Available	Spaces Available	Total Spaces	Spaces Available	Spaces Available	Total Spaces
S. 46th Street-						
S. 47th Street S. 47th Street- S. 48th Street	3	9	12	17	0	17
	8	8	16	8	5	13
S. 48th Street- S. 49th Street	14	5	19	9	12	21
S. 49th Street- S. 50th Street	14	13	27	13	0	13
S. 50th Street- S. 52nd Street	18	12	30	16	13	29
S. 52nd Street- S. 53rd Street	15	7	22	11	12	23
S. 53rd Street- S. 54th Street	8	12	20	12	7	19
S. 54th Street- S. 56th Street	27	11	38	15	0	15
Total	107	77	184	101	49	150

⁸A survey of use of the existing parking supply was conducted on Wednesday, January 20, 1988, between 2:00 p.m. and 3:00 p.m. which indicated that about 46, or 25 percent, of the existing 184 parking spaces were occupied.

Table 2

LIST OF ALTERNATIVES TO ABATE THROUGH TRAFFIC BETWEEN THE STADIUM FREEWAY-SOUTH (USH 41) TERMINUS AND W. BELOIT ROAD IN THE VILLAGE OF WEST MILWAUKEE

Base Alternative	Alternative 1	"Do nothing" alternative (remove barricades from S. 47th Street to S. 54th Street at W. National Avenue and convert one-way segments of S. 47th and S. 48th Streets to two-way operation)
	Alternative 2	Construction of a two-way service road parallel to W. National Avenue between S. 47th Street and S. 54th Street, as proposed by village officials
	Alternative 3	Construction of a one-way service road parallel to W. National Avenue between S. 47th Street and S. 54th Street
Alternatives that May be Expected to Eliminate All Through Traffic	Alternative 4	Construction of a 24-foot-wide median on W. National Avenue from S. 43rd Street to S. 56th Street and conversion of selected streets to one-way southbound operation: S. 52nd Street between W. Greenfield Avenue and W. National Avenue, S. 53rd Street between W. Greenfield Avenue and W. Beloit Road, and W. Beloit Road between S. 46th Street and S. 49th Street and closure of S. 47th Street at W. National Avenue
	Alternative 5	Closure of W. Beloit Road at W. Greenfield Avenue and S. 47th Street at W. National Avenue; par- tial closure of S. 49th Street at W. Greenfield Avenue and S. 53rd Street at W. Beloit Road to allow southbound right turns only; closure of S. 47th Street at W. National Avenue; and conver- sion of S. 52nd Street to one-way operation northbound between W. National Avenue and W. Greenfield Avenue, and one-way operation southbound between W. Greenfield Avenue and W. Beloit Road
	Alternative 6	Closure of S. 49th Street at W. Greenfield Avenue, closure of S. 47th Street at W. National Avenue, and conversion of selected streets to one-way operation: S. 48th Street northbound between W. National Avenue and W. Beloit Road; S. 52nd Street northbound between W. National Avenue and W. Greenfield Avenue and southbound between W. Greenfield Avenue and W. Beloit Road; S. 53rd Street southbound between W. National Avenue and W. Greenfield Avenue and N. Beloit Road; S. 53rd Street southbound between W. National Avenue and W. Greenfield Avenue and N. Beloit Road; S. 53rd Street southbound between W. National Avenue and W. Greenfield Avenue and Northbound between W. Greenfield Avenue and W. Beloit Road; and W. Beloit Road southwestbound between S. 46th Street and S. 49th Street
Alternatives that May be Expected to Partially Abate Through	Alternative 7	Improve selected village arterials, including reconstruction of the W. Greenfield Avenue and W. Beloit Road intersection, and prohibit parking on W. National Avenue between S. 56th Street and S. 43rd Street, and on W. Greenfield Avenue between W. Beloit Road and S. 43rd Street
Problems	Alternative 8	Prohibit left turns from westbound W. National Avenue between S. 47th and S. 56th Streets during the afternoon peak period, and from northeastbound W. Beloit Road between S. 47th and S. 54th Streets during morning peak period

service road paralleling W. National Avenue; the construction of a 24-foot-wide median on W. National Avenue with the attendant conversion of selected street segments to one-way operation; and the closing of W. Beloit Road at W. Greenfield Avenue and S. 47th Street at W. National Avenue, and the attendant conversion of selected street segments to one-way operation. The fourth additional alternative, which could also be expected to virtually eliminate through traffic movements in the area concerned, would involve closing selected streets and converting other selected street segments to one-way operation. The capital cost of this alternative--\$4,000--would be relatively low, entailing only appropriate signing and pavement marking. Also, this alternative would require no right-of-way acquisition. The disadvantage of this alternative is that it would result in a substantial reduction in the convenience of access, and increase the circuity of travel for residents of the study area. It would also result in some inconvenience for those residences abutting the one-way street segment.

The other two additional alternatives would not be expected to as fully eliminate through traffic between the Stadium Freeway-South (USH 41) terminus and W. Beloit Road as the other alternatives considered. These alternatives would be expected to reduce such through traffic by about one-half. One of these alternatives would involve prohibiting left turns on westbound W. National Avenue between S. 47th Street and S. 54th Street during the afternoon peak traffic period of 3:00 p.m. to 6:00 p.m.; and prohibiting left turns on northeastbound W. Beloit Road between S. 47th Street and S. 54th Street during the morning peak traffic period of 6:00 a.m. to 9:00 a.m. This alternative would have a very low capital cost of \$2,000 for appropriate signing and pavement marking. However, it would also result in some circuity of travel for study area residents. There would also be a continuing need for enforcement to assure compliance with the turn prohibitions and some costs to the Village attendant to such enforcement. The other alternative may also be expected to eliminate about one-half of the through traffic from the area concerned. This alternative, instead of restricting travel through the study area, would improve travel on the arterial streets. Specifically, traffic movement between W. Beloit Road and W. Greenfield Avenue would be improved by constructing a freeflow northeastbound-to-eastbound right-turn lane at the northeastbound W. Beloit Road approach to the intersection of W. Beloit Road and W. Greenfield Avenue; and a westbound-to-southwestbound left-turn lane at the westbound approach of W. Greenfield Avenue at the intersection of W. Beloit Road and W. Greenfield Avenue. Attendant signalization improvements would provide a leftturn arrow at the westbound approach of W. Greenfield Avenue at its intersection with W. Beloit Road. Also, under this alternative, parking would be prohibited in the peak direction and peak period on W. Greenfield Avenue between W. Beloit Road and S. 43rd Street and W. National Avenue between S. 56th Street and S. 43rd Street. This alternative would have a capital cost of approximately \$160,000.

RECOMMENDATIONS

It is recommended that the Village of West Milwaukee pursue the alternative providing for the development of a two-way service road paralleling W. National Avenue. While this alternative would have the highest capital cost of all the alternatives considered--\$1.5 million--and would require the most right-of-way acquisition, it would virtually eliminate the movement of through traffic in the area concerned, while providing minimal disruption of access to residents

EVALUATION AND COMPARISON OF ALTERNATIVES PROPOSED TO ABATE THROUGH TRAFFIC BETWEEN THE STADIUM FREEWAY-SOUTH (USH 41) TERMINUS AND W. BELOIT ROAD IN THE VILLAGE OF WEST MILWAUKEE

Evaluation Measure	Alternative No. 1: Status Quo Alternative	Alternative No. 2: Two-Way Service Road Paralleling W. National Avenue	Alternative No. 3: One-Way Service Road Paralleling W. National Avenue	Alternative No. 4: 24-Foot Median on W. National Avenue and Conversion of Selected Streets to One-Way Operation ²	Alternative No. 5: Closure of W. Beloit Road North of W. Green- field Avenue and S. 49th Street at W. National Avenue; Partial Closure of S. 49th and S. 53rd Streets; and Conversion of Selected Streets to One-Way Operation b	Alternative No. 6: Closure of S. 47th Street and Conversion of Selected Streets to One-Way OperationC	Alternative No. 7: Improve Selected Arterials in Viliage, Including Reconstruction of W. Greenfield Avenue and W. Beloit Road Intersection	Alternative No. 8 Prohibit Peak-Period, Peak-Direction Left Turns on Local Streets from W. National Avenue and W. Beloit Road
Through Traffic on Local Streets (average weekday traffic volume) <u>Existing</u> d 1984	Estimated Year 1988	Estimated Year 1988	Estimated Year 1988	Estimated Year 1988	Estimated Year 1988	Estimated Year 19 <u>88</u>	Estimated Year 1988	Estimated Year 1988
4,000	2,500	None	None	None	None	None	1,250	1.375
Impact on Access Provided to Residents in Study Area (additional blocks which must be traveled by study after residents) • Travel to and from the East on W. National Avenue		S. 47th to S. 49th Street residents must travel addi- tional 1/10 to 1/3 mile	S. 47th to S. 49th Street residents must travel addi- tional 1/10 to 1/2 mile; S. 50th to S. 54th Street residents must travel additional 1/8 to 1/2 mile from east only	S. 47th to S. 49th Street, S. 52nd to S. 54th Street residents must travel additional 1/6 to 1/2 mile from east only; S. 52nd Street resi- dents must travel additional 1/5 mile	S. 47th and S. 52nd Street residents must travel additional 1/3 mile	S. 47th, S. 48th, S. 53rd Street resi- dents must travel additional 1/6 to 1/2 mile from east only; S. 47th and S. 53rd Street residents must travel additional 1/6 to 1/2 mile to east only		S. 47th to S. 54th Street residents must travel addi- tional 1/3 to 1/2 mile between 3:00 p.m. and 6:00 p.m. from east only
 Travel to and from the West on W. National Avenue 		S. 52nd to S. 54th Street residents must trave! addi- tional 1/10 mile to the west only	S. 47th to S. 50th Street, S. 52nd to S. 54th Street residents must travel additional 1/10 mile to the west only	to east only S. 47th to S. 49th Street, S. 52nd to S. 54th Street residents must travel additional 1/10 mile to the west only	S. 47th and S. 52nd Street residents must travel additional 1/4 to 1/3 mile	S. 47th, S. 48th, S. 52nd Street resi- dents must travel 1/8 to 1/2 mile from east only; S. 47th and S. 53rd Street resi- dents must travel additional 1/8 to 1/4 mile to west only		
 Travel to and from the East on W. Beloit Road 				S. 53rd Street resi- dents must travel additional 1/3 mile from east only				·
 Travel to and from the West on W. Beloit Road 	·			S. 47th, S. 48th to S. 53rd Street residents must travel additional 1/10 to 1/4 mile from west only	S. 47th Street to S. 49th Street, S. 52nd to S. 53rd Street resi- dents must travei additional 1/10 to 1/4 mile	S. 47th to S. 49th, S. 52nd to S. 53rd Street residents must travel additional 1/10 to 1/3 mile		S. 47th to 56th Street residents must travel additional 1/10 to 1/3 mile between 6:00 a.m. and 9:00 p.m. from west only

Table 3

Table 3 (continued)

Evaluation Measure	Alternative No. 1: Status Quo Alternative	Alternative No. 2: Two-Way Service Road Paralleling W. National Avenue	Alternative No. 3: One-Way Service Road Paralleling W. National Avenue	Alternative No. 4: 24-Foot Median on W. National Avenue and Conversion of Selected Streets to One-Way Operation ^a	Alternative No. 5: Closure of W. Belolt Road North of W. Green- field Avenue and S. 49th Street at W. National Avenue; Partial Closure of S. 49th and S. 53rd Streets; and Conversion of Selected Streets to One-Way Operation	Alternative No. 6: Closure of S. 47th Street and Conversion of Selected Streets to One-Way Operation ^C	Alternative No. 7: Improve Selected Arterials in Village, Including Reconstruction of W. Greenfield Avenue and W. Beloit Road Intersection	Alternative No. 8 Prohibit Peak-Period, Peak-Direction Left Turns on Local Streets from W. National Avenue and W. Beloit Road
Impacts on Access (continued) • Travel to and from the East on W. Greenfield Avenue				S. 52nd Street residents must travel additional 1/4 mile	S. 49th, S. 52nd Street residents must travel addi- tional 1/4 to 1/3 mile	S. 49th, S. 52nd, S. 53rd Street resi- dents must travel additional 1/7 to 1/3 mile		
 Travel to and from the West on W. Greenfield Avenue 				S. 52nd Street residents must travel additional 1/4 to 1/3 mile	S. 48th, S. 49th, S. 52nd Street resi- dents must travel additional 1/4 mile	S. 49th, S. 52nd, S. 53rd Street resi- dents must travel additional 1/5 mile		
Capital Costs Construction Right-of-Way Total		\$1,210,000 250,000 \$1,460,000	\$1,030,000 190,000 \$1,220,000	\$ 870,000 170,000 \$1,040,000	\$ 30,000 360,000 \$390,000	\$4,000 \$4,000	\$150,000 10,000 \$160,000	\$2,000 \$2,000
Disruption Right-of-Way		4.1 acres	3.1 acres	2.7 acres	0.3 acre, including one commercial building	None	0.2 acre	None
Separation of Residences and Traffic Lanes		Increases separation of W. National Avenue traffic from residences and businesses on south side of W. National Avenue by 52 feet	Increases separation of W. National Avenue traffic from residences and businesses on south side of W. National Avenue by 40 feet	Increases separation of west- bound W. National Avenue traffic from residences and businesses on south side of W. National Avenue by 24 feet				

^aThe streets selected for one-way operation are S. 52nd Street between W. Greenfield Avenue and W. National Avenue; S. 53rd Street between W. Greenfield Avenue and W. Beloit Road; and W. Beloit Road between S. 46th Street and S. 49th Street. Also, S. 47th Street would be closed at W. National Avenue.

^bSouth 52nd Street would be one-way northbound between W. National Avenue and W. Greenfield Avenue, and southbound between W. Greenfield Avenue and W. Beloit Road. South 49th and S. 53nd Streets would be partially closed at their intersections with W. Greenfield Avenue and W. Beloit Road. Also, S. 47th Street would be closed at W. National Avenue.

^CThe streets selected for one-way operation are S. 48th Street northbound between W. National Avenue and W. Beloit Road; S. 52nd Street northbound between W. National Avenue and W. Greenfield Avenue, and southbound between W. Greenfield Avenue and W. Beloit Road; S. 53rd Street southbound between W. National Avenue and W. Greenfield Avenue, and northbound between W. Greenfield Avenue and W. Beloit Road; and W. Beloit Road southwestbound between S. 46th Street and S. 49th Street.

dExisting average weekday traffic volumes prior to S. 43rd Street construction.

of the area. In addition, the alternative would improve traffic flow on W. National Avenue by separating through traffic from local traffic and curb parking, and providing an increase in the number of traffic lanes from two to four. Also, this alternative could be expected to improve access to the Clement Zablocki Veterans Administration Medical Center from W. National Avenue, as it would remove one leg from the two intersections providing principal access to the medical center, eliminate most conflicts with curb parking, and increase the number of traffic lanes on W. National Avenue from two to four.

It is also recommended that the Village pursue implementation of the alternative that would improve the intersection of W. Greenfield Avenue and W. Beloit Road to encourage through traffic to utilize arterial streets. This alternative would provide a free-flowing northeastbound-to-eastbound right-turn lane at the intersection, as well as an exclusive westbound-to-southwestbound leftturn lane and left-turn signalization arrow. Also, parking would be prohibited in the peak direction and peak period on W. Greenfield Avenue between W. Beloit Road and S. 43rd Street. The estimated cost of this alternative is \$160,000. APPENDICES

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ALTERNATIVE 3: PROPOSED ONE-WAY SERVICE ROAD PARALLEL TO W. NATIONAL AVENUE BETWEEN S. 47TH STREET AND S. 54TH STREET



「日本の ELECTRONIC STREET USH 41

LEGEND PROPOSED RIGHT-OF-WAY LIMIT CURB LAWN

ROADWAY

MEDIAN STRIP ROADWAY CURB LAWN AND SIDEWALK EXISTING RIGHT-OF-WAY LIMIT



19

200 250 300 FEET

ALTERNATIVE 4: PROPOSED CONSTRUCTION OF 24-FOOT-WIDE MEDIAN ON W. NATIONAL AVENUE BETWEEN STADIUM FREEWAY (USH 41) AND S. 56TH STREET AND CONVERSION OF SELECTED STREETS TO ONE-WAY SOUTHBOUND OPERATION AND CLOSURE OF S. 47TH STREET AT W. NATIONAL AVENUE







ALTERNATIVE 5: CLOSURE OF W. BELOIT ROAD NORTH OF W. GREENFIELD AVENUE AND S. 47TH STREET AT W. NATIONAL AVENUE: PARTIAL CLOSURE OF S. 49TH STREET AND S. 53RD STREET AT W. BELOIT ROAD; AND CONVERSION OF S. 52ND STREET TO ONE-WAY OPERATION











ALTERNATIVE 6: CONVERSION OF SELECTED STREETS TO ONE-WAY OPERATION; CLOSURE OF S. 49TH STREET AT W. GREENFIELD AVENUE; AND CLOSURE OF S. 47TH STREET AT W. NATIONAL AVENUE









ALTERNATIVE 7: IMPROVEMENT OF SELECTED ARTERIALS IN THE VILLAGE, INCLUDING RECONSTRUCTION OF W. GREENFIELD AVENUE AND W. BELOIT ROAD INTERSECTION AND SELECTED PARKING PROHIBITIONS







ALTERNATIVE 8: PROHIBITION OF LEFT TURNS ON W. NATIONAL AVENUE AND W. BELOIT ROAD DURING PEAK TRAFFIC PERIODS

LEGEND



