Northeastern Indiana Regional Coordinating Council

Winter 2004

Transportation News

Corridor Study and Protection Plan

State Road 1 in Wells County, Indiana

A corridor study and a corridor protection plan will be completed along State Road 1 in Wells County as a follow-up to the Wells County Transportation Plan done by NIRCC in 2002. NIRCC is working with the City of Bluffton, Town of Ossian, and Wells County officials. The main purpose of a corridor study is to evaluate traffic impacts of future developments on an existing corridor. Corridor protection plans evaluate and identify optimal access points along corridors for future developments and improvements. This study focuses on State Road 1 from the Allen County / Wells County boundary to State Road 124(Division Street) on the north side of Bluffton, Indiana in Wells County.

The corridor analysis estimates the number of new trips from anticipated developments that will be added to an existing facility, in this case State Road 1, to examine how the traffic flows will change. When traffic conditions fall below acceptable standards, recommendations are tested to accommodate existing and future traffic to relieve anticipated congestion along the corridor.

In order to complete the corridor study and corridor protection plan NIRCC has started collecting intersection counts and traffic volumes along the corridor. NIRCC has also began collecting information such as land use, zoning information, and anticipated development information which has been obtained from the Wells County Area Plan Commission.

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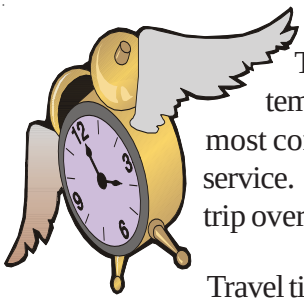
Travel Time Studies



Travel time is one method to measure the congestion in a transportation system. It is essential for proper evaluation of the system because time is one of the most compelling and accurate yardsticks of the efficiency of street and highway service. Travel time is defined as the total time for a vehicle to complete a designated trip over a section of the road or from a specific origin to a specific destination.

Travel time has a number of uses including:

- Identification of problem locations on facilities by virtue of high travel times and delay;
- Measurement of arterial level of service;
- Input into transportation planning models;
- Evaluations of route improvements;
- Input to economic analysis of transportation alternatives.

So far this fiscal year (July 1, 2003 to June 30, 2004), we have completed three travel times and are scheduled to complete four more. The completed corridors are; Coliseum Blvd., Wayne St., and Berry St. Staff anticipates the following travel times to be completed during the remainder of this fiscal year; Union Chapel Rd. / Carroll Rd., Homestead Rd., Liberty Mills Rd., and Cook Rd.

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Community Development Updates

Town of Waterloo

In early November of 2003, NIRCC received the exciting news that the Town of Waterloo in Dekalb County had been awarded a $300,000 Community Focus Fund (CFF) Grant for a water utility improvements project. The total project cost is estimated at $532,050, which will be paid for with $232,050 in local match and $300,000 in state funding. The state funding is federal Community Development Block Grant (CDBG) money that is allocated from the U.S. Department of Housing and Urban Development and administered by the Indiana Department of Commerce (IDOC). Two rounds of CFF Grants are held per year. Thirty-nine applications, including Waterloo's, were funded in the last round totaling just over $15 million. This was Waterloo's third attempt and the persistence was well worth it.

Since the award announcement, NIRCC has been working with the Town of Waterloo and the IDOC to follow the necessary steps to move the project forward. The town has eighteen (18) months from the time of the grant award to complete the project. The project is intended to address the community's need for better fire protection, customer service, and maintenance and includes fire hydrant replacements, water main replacements, valve replacements, and a water main extension.

City of Berne

Since last summer, NIRCC has also been working with the City of Berne in Adams County to obtain financing for a stormwater drainage improvement project. The proposed project is estimated to cost $835,000, which will be paid for with $335,000 in local match and $500,000 in state funding. This is also a proposed CFF project.

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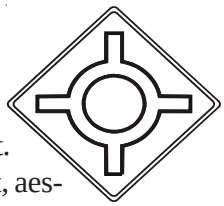
Want information or guidelines on roundabouts? If so contact NIRCC! Just call (260) 449-7309 and ask for Jeff Bradtmiller. You can also email Jeff at the following Address: Jeff.Bradtmiller@co.allen.in.us

Roundabout Ahead!!

What is a Modern Roundabout?



Different situations can call for different types of Intersections. Intersections can come in many forms and have a variety of traffic control devices. One unique type of intersection is a roundabout. In certain situations a roundabout may be the safest, most efficient, aesthetically pleasing, and cost-effective choice made. The Federal Highway Administration defines a roundabout as a one-way, circular intersection without traffic signal equipment in which traffic flows around a center island.

The main characteristic of a modern roundabout is the "yield-at-entry" rule, meaning that traffic entering the roundabout must yield to traffic within. Other characteristics include deflection of the vehicle path by use of a circular center island, and splitter islands on each approach. The splitter islands control entry speed and deter illegal left turns. They also serve as refuge islands for pedestrians. Other elements include yield lines downstream of the pedestrian crossings, no pedestrian access to the center-island or through the circular roadway, good sight distance, good lighting and signing, and no parking in the roundabout.

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Construction Progress Report

The Aboite Center Road Bridge over I-69 has been replaced with added travel lanes and sidewalks on both sides.

The added travel lanes on Aboite Center Road from Coventry Lane to Jefferson Boulevard should start in the spring.

New roadway construction of Hillegas Road from north of Bass Road to Jefferson Boulevard is complete.

The added travel lanes on US 33 from Washington Center Road to Cook Road is in the right-of-way acquisition process and should begin construction in late summer.

New roadway construction of Ardmore Avenue from Lower Huntington Road to Indianapolis Road should begin this summer.

Reconstruction on Dupont Road from Pine Mills Road to Auburn Road is in progress.

A new signal at SR 37 and I-469 is complete.

A new signal at Washington Center Road and Huguenard Road has been added.

The widening of Coldwater Road from Dupont Road to Cook Road is complete.

The added travel lanes on St. Joe Center Road from St. Joe Road to Reed Road is in the right-of-way acquisition process and should begin construction in late summer.

Phase 1 of the I-69 widening from south of Leesburg Road to south of US 24 is on schedule. The 1st year of the anticipated 2 year construction is complete.

The roundabouts at Pontiac Street and Wayne Trace are complete.

The intersection improvement in New Haven at Landin Road and North River Road is anticipated to begin in the upcoming construction season.

Road reconstruction in New Haven on Rose Avenue from Green Street to Broadway should be ready for summer construction.

Corridor Study and Protection Plan continued...

Information provided by a corridor study is helpful for developing a corridor protection plan that can be an efficient tool for mitigating potential congestion. The adoption of a Corridor Protection Plan facilitates efforts to resolve existing congestion and mitigate future problems. The recommendations from this plan will aid local officials, planners, and developers during future development by protecting the integrity of the corridor from detrimental access. Corridor studies will also review locations that are in need of current or future infrastructure improvements.

True or False,

1. The maximum amount of money that can be awarded for a Community Focus Fund (CFF) grant is $700,000.
2. At least one public hearing must be held prior to submitting a grant application to the Department of Commerce for a Community Development Block Grant (CDBG).

Answers:

1. False, the maximum amount that can be awarded for a CFF grant is $500,000.
2. False, two public hearings must be held prior to submitting a grant application to the Department of Commerce for a CDBG.

Roundabout continued...

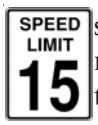
One type of intersection that some people mistake roundabouts for are rotaries. Modern roundabouts are smaller than traditional rotaries. Roundabouts are generally 100 to 150-feet in outer diameter, as opposed to rotaries being 150 to 300-feet in outer diameter (otherwise referred to as the Inscribed Circle Diameter). Because rotaries are larger, they move more vehicles at higher speeds ranging from 30 to 45 mph. Roundabouts are smaller and force vehicles to slow to speeds ranging from 15 to 20 mph. This difference is significant for several reasons: (a) higher speeds make entering the rotary more difficult, (b) higher speeds result in more severe accidents, and (c) higher speeds make crossings for pedestrians potentially more dangerous.

One of the main benefits of a compact modern roundabout is traffic calming. The Institute of Traffic Engineers defines traffic calming as the combination of physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users. In other words, roundabouts force cars to slow down, thereby making the intersection safer and more desirable for motorists and pedestrians. The following are other reasons a modern roundabout could be chosen.

Low Crash Severity:

A 1997 study conducted by the U.S. Transportation Research Board revealed that intersections converted to roundabouts reduced overall crashes by 37-percent, and reduced injury accidents by 51-percent. The reasons have to do with the lower number of conflict points resulting in simplified decision making, and the lower vehicle speeds resulting in lower forces of impact.

Low Vehicle Speeds:



Modern roundabouts slow cars. Slowing in residential areas has many benefits, but the most significant are the safety of pedestrians. Roundabouts are designed to slow vehicles to 15-20 mph, while traffic signals encourage many drivers to accelerate their vehicles through intersections in order to "beat the red lights." A study conducted by the UK Department of Transportation revealed that pedestrian fatality rates increased substantially with vehicle speed.

Pedestrian Safety:

Roundabouts are safer for pedestrians than conventional traffic signals. A study of 181 intersections in Norway converted to roundabouts reduced pedestrian casualties by 89-percent. The reasons are due to reduced conflict points and lower vehicle speeds. At a 4-legged conventional signalized intersection, there are 24 vehicle-to-pedestrian conflict points. At a 4-legged roundabout, this number is reduced to 8. As indicated previously, roundabouts also reduce vehicles speeds thereby improving chances for pedestrians to survive a collision.

Bicycle Safety:

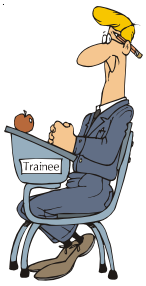
Accident data from Europe regarding bicycle safety shows mixed results. According to one study in the United Kingdom, 15-percent of all intersection accidents in 1984 involved at least one bicyclist, but 22-percent of all roundabout accidents involved at least one bicyclist. Contrary to the British experience, a study in the Netherlands of 181 mini-roundabouts that were converted from three and four-legged intersections found injuries to bicyclists decreased from an average of 1.3 casualties per year to 0.37 casualties per year; a reduction of 72-percent. In contrast with the data from the United Kingdom, the U.S. Department of Transportation Roundabout Informational Guide quotes, "Roundabouts slow drivers to speeds more compatible with bicycle speeds, while reducing high-speed conflicts and simplifying turn movements for bicyclists." In summary, it could be said that roundabouts may or may not affect the number of bicycle accidents, but appear to have benefit as far as reducing bicyclist casualty rates.

Aesthetics:

There is not much debate that if properly constructed, roundabout intersections are more attractive than signals. Cities usually incorporate many decorative features, including ornamental street lighting, a cobblestone truck apron, vertical granite curbing, brick accents on the splitter islands, stone walls, and enhanced landscaping that consists of hundreds of flowering perennials and shrubs. Because there are no large poles and mast arms, the intersection appears less visually cluttered. Also, because there are fewer entrance lanes, the intersection appears more compact. This creates an intersection that is more in scale with the surrounding neighborhoods, and also provides a human scale to the intersection. By contrast, most signalized intersections provide separate left-turn lanes, which create an expansive area of pavement. With the roundabout, these lanes have been replaced with raised splitter islands that dually provide vehicle delineation and pedestrian refuge.

On a side note...

Staff Training, Seminars, & Conferences



1. Two staff members attended a congestion management workshop in Frankfurt, Kentucky in July 2003.

2. Two staff members attended a roundabout seminar in October 2003.

3. The entire staff attended the annual MPO conference in October of 2003. The conference was held in Muncie, IN this year.

4. Two staff members attended a course on estimating regional mobile source emissions back in November 2003.

5. Two staff members attended ArcGIS training courses (one in November 2003and one in January 2004).

6. Two staff members attended a course on safety analysis in January 2004.

Northeastern Indiana Regional Bicycle and Pedestrian Forum Update

The Northeastern Indiana Regional Bicycle and Pedestrian Forum is in the process of developing the first draft of a regional bicycle and pedestrian plan. The draft will be a positive step to increase safety, accessibility, and facility types that are friendly to alternative modes of transportation. At this stage the plan will primarily accommodate bicyclists. It will identify routes along roadways that, if the proper roadway treatments are constructed, will be the most beneficial to bicyclists. The first draft of this plan will place most of its emphasis on the area of Allen County, although parts of it will include Dekalb, Adams, and Wells Counties.

Even though the Forum's first draft will be geared towards bicycle use, varying situations or locations with different needs (i.e., paths along roads, sidewalks, etc.) will be addressed as long as they are identified on the plan. Once this plan is adopted and in place, it will act as a checklist for planners as they plan improvements to roadways or plan new projects. This will give planners the justification for making adjustments to projects and road improvements to include bicycle or pedestrian friendly facilities. By adding these facilities to project plans ahead of time, there will be less cost involved. There will also be a better chance for getting the improvements added to roadways already scheduled for improvement (rather than roadways that are not).

With the Forum's diverse membership being made up of groups and organizations such as park departments, planning departments, special project organizations, and user/advocacy groups, it has chosen routes for improvement based on a variety of information. Members of the Forum have provided their own information, views, and adopted plans that are significant to their own groups and organizations. Other information providing a basis of understanding for the planning process of these routes include data such as traffic volumes, truck percentages, current road conditions, proximity to local amenities, locations of national and bicycle club routes, and locations of common destinations. Once the planning process is completed the plan will be sent to UTAB (Urban Transportation Advisory Board) and NIRCC (Northeastern Indiana Regional Coordinating Council) for adoption into NIRCC's long range transportation plan for implementation. Periodic updates to the plan will be made by the Forum as current settings and situations change.

NIRCC

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Community Development Updates continued...

The project is intended to address flooding that occurs in the northeast quadrant of the City. The project will install a storm relief sewer that will be directed to a new stormwater detention pond. This pond will allow for the accumulation and slow release of storm water so that the outlet sewer is not overloaded as is the case today. This new storm sewer system will also remove storm water from the existing combined sewers that presently serve the area and thereby reduce the frequency and duration of combined sewer overflow into the nearby Sprunger Ditch. This project will include the installation of stormsewers, pond outlet sewers, inlets, manholes, a detention pond, gravel for backfill, pavement repair and replacement, and the relocation of utility and service lines.

The CFF involves a two-step process, a proposal followed by an application, with a public hearing during each phase. The proposal is followed by a visit from the IDOC field rep, who advises the community on the merits of the application. Applications are scored on a 1000-point scale.

A proposal was submitted on January 23. The application is due April 2, with an award announcement expected in early June.