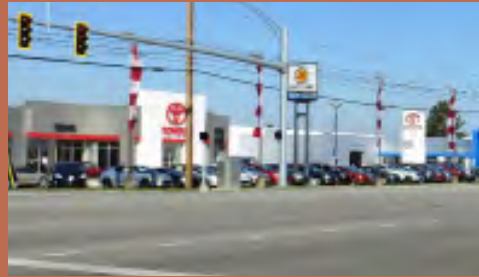


TRANSPORTATION, SAFETY, AND PLANNING STUDIES



Most projects are initiated with a study to determine **feasibility and if financial resources are available for the proposed improvements**. PDG transportation staff has extensive experience with the following types of **traffic studies**:

- Traffic signal studies and design
- Traffic impact and capacity studies
- Comprehensive planning
- Access control management studies
- Interchange Justification/Modification Study
- Safety Study
- Traffic counts at intersections
- Traffic certification
- Signal warrants at all existing and likely future signal locations
- Capacity analysis at all intersections
- Recommendation on two-way, left-turn lanes
- Recommendation on additional intersection turn lanes

During the study phase, PDG will review and analysis relevant issues including:

- Development of project scope
- Project funding
- Coordinate hazardous waste screening
- Determine the need for further Environmental Site Assessment Phase I, II, or III studies
- Historic/4(f) involvement
- Preliminary line, grade and typical section and R/W takes (if required)

- Right-of-way acquisition
- Ecological/wetland screening
- Public meetings (if required)
- Utility coordination
- Environmental clearance

PROJECT EXPERIENCE

PERRYSBURG CARRONADE DRIVE AND ECKEL JUNCTION ROAD ROUNDABOUT STUDY

Poggemeyer Design Group is currently completing design of a modern roundabout at the intersection of Carronade Drive and Eckel Junction Road in the City of Perrysburg, Wood County. The project is a federally funded Local Public Agency project, PID 90670. The site has many characteristics similar to Worthington Road, with adjacent suburban developments on all sides. After careful consideration of the design vehicle, school buses and the City's largest aerial ladder fire truck were selected and modeled in AutoTurn. An occasional WB-67 semi was provided for with a truck apron. This allowed for a relatively small 100 foot diameter inscribed circle, which just barely fit sidewalks between stone pillars marking subdivision entrances. The design provides new offsets on the two 45 mph approaches. The other two slower approaches were changed less in order to salvage the existing pavement and minimize costs. A public meeting was controversial because of an unfortunate overlap with problems at nearby state route intersections, requiring additional effort to reply to

citizen complaints and address them in the environmental document. Right-of-way plans were also required because of pre-existing right-of-way problems unrelated to the roundabout proposal. Final right-of-way is approved and stage 2 plans are being reviewed.

WOODMORE SCHOOLS TRAFFIC IMPACT STUDY

Impact study to evaluate a new school access drive as a fourth leg of the existing US 20/ SR 105 intersection. In addition to HCS 2010 Streets analysis, the work included a geometric study of the revised intersection.

Client

- Woodmore School District

Review Agencies

- ODOT and the Village of Woodville

THAYER CHEVROLET/TOYOTA/HONDA TRAFFIC IMPACT STUDY

Impact study for revised access for three car dealerships involving three stop controlled drives and three signalized intersections that are part of a coordinated corridor. Client: Thayer family dealerships

Review Agency

- City of Bowling Green

Toledo Marina District



Vermillion SR60 Corridor Study



South Wood County Road Study



ERI-250-0.00

Lane arrangement analysis, turn lane justification, new signal layout and preliminary evaluation of signal coordination changes to match the revised lanes as part of the upgrade of four miles of a busy urban arterial at the Sandusky Mall that serves as a main route into Cedar Point. Work involves several side road relocations. Signal plans will be prepared as part of Stage 2 about to be authorized.

Client

- ODOT District 3

Review Agency

- ODOT District 3, Erie County Engineer

WOO-25-10.55

Prepared an analysis using Synchro 8 for opening day timing and coordination for an urban corridor of seven actuated traffic signals that we had previously designed. Earlier design had included a study of substituting a roundabout for the Poe/ Main intersection, but this alternative was not adopted due to right of way considerations.

Client

- City of Bowling Green

MENARDS PORT HURON TRAFFIC IMPACT STUDY

Study evaluated the traffic impacts of a new retail superstore to several local roads adjacent to Interstate 94. Because of an ongoing rehabilitation of the freeway, the report included several unusual scenarios in the analysis to account for

ongoing ramp closures when the study counts were being made. Work also included construction plans with critical truck turn analysis and for the recommended median u-turn (Michigan left turn) intersections.

Client

- Menards, Inc.

Review Agency

- MDOT, St Clair County Road Commission

NORTH DIXIE HIGHWAY CORRIDOR STUDY

This study evaluated a dated four lane design and recommended a "road diet" three lane design with bike lanes that will better serve the River Raisin Battlefield national park now being developed nearby. The work included capacity analysis of two signalized intersection and consideration of an crash "hot spot" due to a curve.

Client & Review Agency

- City of Monroe, Michigan

SEN-GREENFIELD STREET

Studies and detailed design of three closely spaced intersections that form a triangle near the Heidelberg University campus. The design eliminated one traffic signal and provided a new, less confusing channelized connection with improved signs and pedestrian facilities.

Client

- City of Tiffin

Review Agency

- Tiffin City Engineer

CLA-235-2.56

Capacity analysis using HCS 2010 Streets for a temporary one lane traffic sign needed for a bridge replacement. The analysis considered the impacts of queuing on the adjacent signalized intersection of US 40/ SR 235 about 800 feet away.

Client & Review Agency

- ODOT District 7

VERMILLION SR 60 CORRIDOR STUDY

This report developed a long range plan of a corridor linking the City of Vermillion downtown on Lake Erie with the SR 2 freeway, considering the different needs of city and township segments and future economic development. The work included recommendations for future intersection and signal locations, access management, typical sections including landscaping and lighting, and gateways at the SR 2 interchange.

Clients & Review Agencies

- City of Vermillion, Vermillion Township, Erie County Regional Planning, ODOT District 3

SOUTH WOOD COUNTY ROAD STUDY

Evaluated and reported on conceptual road improvement strategies and improvements to both the county and township road systems adjacent to the newly developed CSX Intermodal Terminal.

Client

- Wood County Engineer

Review Agencies

- Wood County Engineer, Henry Township

Wilmington Wayfinding Signage



ST. MARY'S CITY SCHOOLS

Developed a wide range of alternatives to provide safe pedestrian access to a new school facility separated from town by the US 33 freeway. Alternatives ranged from a new overpass bridge to modifying the existing interchange from four to three lanes. The follow-on Safe Routes to Schools travel plan adopted a modified form of our recommendations when the travel plan was adopted.

Client

- St. Mary's City Schools

Review Agencies

- St. Marys City Engineer, ODOT District 7

DEF-66

Developed conceptual and final maintenance of traffic plans of a design build urban arterial and interchange with the US 24 freeway.

Client

- Mosser Construction

Review Agencies

- City of Defiance, ODOT District 1

WATER STONE LANDING APARTMENTS TIS

Prepared a traffic impact study for a new apartment complex that evaluated the impacts and needed improvements to Roachton Road and SR 25.

Client

- Miller Valentine

Review Agency

- City of Perrysburg

I-75/ELDEAN RD INTERCHANGE STUDY

Studied at a planning level the economic development, land use, traffic and geometric alternatives for a future new I-75 interchange on the north side of the city.

Client & Review Agency

- City of Troy

WILMINGTON WAYFINDING SIGNAGE

Study and public meeting to recommend a new wayfinding and overhead street sign system in the downtown historic district. Numerous color alternatives were produced using SignCAD software and following Ohio Manual of Uniform Traffic Control Devices guidance while providing an aesthetic look for the downtown.

Client & Review Agency

- City of Wilmington

WOO-ROACHTON ROAD/HULL PRAIRIE ROAD SAFETY STUDY

This study was prepared for the Wood County Engineers to investigate antidotal reports of hazardous conditions at this suburbanizing intersection at the boundaries of the City of Perrysburg and two townships. The study conducted

new traffic counts, analyzed GCAT crash patterns and prepared capacity calculations for existing and projected future conditions. The report concluded that the situation was not as critical as described, but at a point where planned subdivision growth would compound an already growing problem. The study identified interim safety countermeasures that were rapidly implemented and recommended a future roundabout that is currently being programed by the county.

Client & Review Agency

Contact: Ray Huber, P.E., Wood County Engineer, 419-354-9060.

ADDITIONAL PROJECTS

- Columbus Grove SR65 Access Study
- Wooster North Street Traffic Signal Study
- Ashland Claremont/College/King Signal Replacement Study



Poggemeyer

Apex Central Industrial Park Roadways

North Las Vegas, Nevada

Owner/Client:

Land Development Associates, LLC

Contact:

Dave Brown

Cost: \$15,600,000

Completion Date: On-Going

Services Provided:

Survey, Master Drainage Study, Civil Engineering, Flood Control Design/Engineering, Land Development, Railroad Crossing Design and Traffic Roadway Design

Delivery Method:

Design-Bid-Build

Project Team:

Larry V. Carroll, P.E., LEED AP- Principal-In-Charge / Adam P. Pilarz, P.E., PTOE – Project Manager, Jason M. Calhoun, P.E., CFM, LEED AP / Drainage Lead

The project consists of a master site development plan on approximately 520 acres. Poggemeyer's professional services include Roadway Plans, Topographic Surveys, Zoning Entitlements, Master Drainage Study, Infrastructure, Storm Channel Plan and Profiles, Round and Rectangular Storm Water Facilities Plan and Profiles, Headwall Structural Calculations and Details. The commercial lots created are accessed by a 3.5 mile network of 80 and 60-foot right-of-ways designed with City of North Las Vegas specific requirements for this large industrial complex. The Master Drainage Study designed flood control facilities to convey the majority of offsite flow impacting the site to a Clark County Regional Flood Control District Detention Basin. This detention facility design was included within the project scope of work. Other smaller onsite and offsite flows were design to be conveyed through the project site and released into their native flow paths, preserving nature's drainage pattern.





Poggemeyer

Apex Grand Valley Parkway/U.S. 93 North Las Vegas, Nevada

Owner/Client:

Land Development Associates

Contact:

David Brown

Cost: \$10,000,000

Completion Date: 2011

Services Provided:

Master Planning, Drainage, Traffic
Roadway Design, Utility Design, Rail
Road Crossing Design, Water Rights, and
BLM Coordination

Project Bid Structure:

Design-Bid-Build

Project Team:

Larry V. Carroll, P.E., LEED AP- Principal-
In-Charge / Adam P. Pilarz, P.E., PTOE –
Project Manager / Jason M. Calhoun,
P.E., CFM, LEED AP – Drainage Lead



Poggemeyer is responsible for the design of a 1.7 mile access road at the northern portion of the industrial park. The design included acceleration and deceleration lanes on US-93 and several large multiple barrel storm drain crossings. The access road included travel lanes, and full half-street improvements adjacent to the property for a future 100-foot right-of-way. This 80-foot right-of-way included NDOT permit design and coordination, several culvert crossings, and future grading coordination. Included were the design of the railway roads for access to the planned heavy industrial site between SR-604 and I-15. The design includes 1.7 miles of two-lane frontage road, a 0.2-mile two-lane connector to SR-604, an at-grade intersection with a Union Pacific Railway, culverts of varying sizes, and traffic improvements on SR-604. An NDOT right-of-way encroachment permit was undertaken along with utility coordination.

