# RYAN K. DAVIS, PE, PTOE

Mr. Davis currently serves as a Project Manager on the Transportation Team. where he manages, designs and provides construction administration for and has more than 10 years of experience in traffic engineering. Among his previous projects, Ryan has worked on a magnitude of traffic engineering related projects including traffic operations analysis, traffic signal warrants and design, traffic impact studies, access management, school zones, bicycle facilities and pedestrian crossings. In addition, he has extensive experience in fiber optic design and corridor layout while designing, implementing, and inspecting the Fiber Optic Network for the City and School District in Johnston, Iowa.

Ryan is experienced in the pursuit, coordination, and administration of various project funding sources including Urban State Transportation Enhancement Program (U-STEP), Revitalize Iowa's Sound Economy (RISE) program, the Traffic Safety Improvement Program (TSIP), and Iowa's Clean Air Attainment Program (ICAAP). Additionally, he is experienced in assisting communities through the Iowa Traffic Engineering Assistance Program (TEAP) and Safe Routes to School (SRTS) program.

#### Alices Road / 105<sup>th</sup> Street Interchange | Waukee and West Des Moines, Iowa

Analysis of Interstate 80 and local major street systems to evaluate and justify a new interstate access. Significant capacity analysis and scenario analysis with the Des Moines Metropolitan Planning Organization's traffic models. Updated growth scenarios, land use forecast, trip generation, and modeling for both communities for 2035 conditions. The project included design and construction of approximately 1 mile of divided 6 lane urban arterial, a 6-lane bridge across Interstate 80, right-of-way acquisition, and design of a Diverging Diamond Interchange.

#### University Avenue Reconstruction | Cedar Falls, Iowa

Analysis of University Avenue in Cedar Falls, IA from Iowa Highway 58 to Midway Drive. Existing and future traffic operations, accident analysis and evaluation of alternatives with incorporating bike / recreational facilities, roundabouts, and crosssection alternatives. The existing six-lane corridor was degrading and multiple traffic signals were not coordinated. Implementation of a new access management policy and installing roundabouts improved travel time through the two-mile corridor by over 80 seconds.

# Grand Prairie Parkway Corridor Study | Waukee, Iowa

Analysis of existing and future corridor traffic operations, accident analysis, traffic signal warrant analysis, capacity analysis and evaluation of alternatives incorporating bike/recreational facilities, pedestrian traffic, and evaluation of cross-section alternatives within the Grand Prairie Parkway and Kettlestone Development District, approximately 2,400 acres. Worked thoroughly with the city and developers to implement an access management policy to maintain fluid movement through the corridor.

# NW 70th Avenue Corridor Study | Johnston, Iowa

Analysis of existing and future corridor traffic operations, accident analysis, traffic signal warrant analysis, capacity analysis and evaluation of alternatives, and

# RYAN K. DAVIS, PE, PTOE

FIRM McClure Engineering Company

#### EDUCATION

B.S. Civil Engineering Iowa State University, 2006

#### PROFESSIONAL REGISTRATIONS

Professional Engineer Iowa (#21376)

Professional Traffic Operations Engineer

Fiber Optic Design Technician Level II – IMSA

Fiber Optic Field Technician Level II – IMSA

Iowa DOT PCC I – Iowa DOT

#### **PROFESSIONAL AFFILIATIONS**

Iowa Engineering Society (IES) – Past President

Iowa Central Chapter of Institute of Transportation Engineers (ICITE) – Secretary

ITS Heartland

HIRE DATE WITH MEC April 2016

EXPERIENCE WITH OTHER FIRMS 10 years

evaluation of cross-section alternatives. Recommendation of multiple roundabouts within the corridor to improve corridor safety and efficiency.

#### Southeast Connector | Des Moines, Iowa

Major arterial multi-lane roadway connecting the Martin Luther King Jr. Parkway at Southwest 2nd Street to the US 65 Bypass in Des Moines. Development of the SE Connector provided both local and regional benefits to the City's greater transportation system. Project included traffic signal warrant analysis, determination of existing traffic volumes and turning movements, design of traffic signal timing and phasing, development of traffic signal plans of 10 new intersections.

#### Hubbell Avenue Corridor Safety Improvements | Des Moines, Iowa

Corridor safety analysis conducted for Hubbell Avenue from E 33rd St. to E 42nd St. Traffic volumes were used to analyze the existing condition while 2045 traffic volumes were used to analyze the future condition. Three different alternatives were reviewed for the future condition to determine the various impacts of the proposed improvements to the area. Multiple public information meetings were held to gain public input and proceed with the best option.

# Gateway Business Park RISE Project | Carlisle, Iowa

Project Manager for the design of two sections of roadway to serve a proposed business park. A portion of the project was funded through the Revitalize Iowa's Sound Economy Program. Major responsibilities included management of the survey and design team, construction administration and coordination with the Iowa Department of Transportation.

# Rock Creek North Traffic Impact Study | Ankeny Iowa

Rock Creek North is a proposed multi-use development consisting of single family residential, multi-family residential, and commercial retail located on the northeast corner of NW 36th Street & NW Irvinedale Drive in Ankeny, Iowa. A traffic Impact Study was completed for Clarity Construction to meet the City of Ankeny's requirements of new development. In conjunction with the impact study for the development, the City requested a future forecast of the northwest portion of the city to assist with preparing right-of-way and infrastructure needs. The City's Comprehensive Land Use Map was used to obtain future development for the surrounding areas to examine and generate future traffic volumes for the study intersections.

# SE Delaware Avenue + SE Oralabor Intersection Study | Iowa DOT, Ankeny, Iowa

Analysis of existing and future corridor traffic operations, accident analysis, traffic signal warrant analysis, capacity analysis and evaluation of alternatives. Temporary improvements were approved by the clients with the anticipation of a new interchange to be constructed in the future. An Interchange Operations Report was conducted to show the proposed modifications to the existing interchange.

# Iowa Great Lakes Lifestyle Center TIS | Spirit Lake, Iowa

Significant capacity analysis and scenario analysis with the Northwest Iowa Planning and Development Commission. Updated growth scenarios, land use forecast, trip generation, and modeling for the communities of Spirit Lake and Okoboji for 2035 conditions.

# Meredith Drive Improvements | Urbandale, Iowa

Project Manager for the reconstruction of 1-mile of Meredith Drive from 156<sup>th</sup> Street to 170<sup>th</sup> Street. The \$6MM project included reconstruction of the existing 2-lane

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rural road to a 4-lane urban road with storm sewer. Major responsibilities included management of the survey and design team, construction administration and coordination with the City of Urbandale.

# On-Call Traffic Engineering Contract | Johnstone, Iowa

- Beaver Creek Elementary School Crossing Study
- Newgate Drive Speed Study
- Roughwood Redevelopment TIS
- Kevin's Place TIS
- Adam's Ridge Apartment Complex TIS

#### City of Des Moines Traffic Signal Design | Des Moines, Iowa

• Laurel Street & 7th Street

#### City of Johnston Traffic Signal Design | Johnston, Iowa

- NW 62nd Avenue & NW 100th Street
- NW 62nd Avenue & High School Entrance (modification)
- NW 62nd Avenue & Middle School Entrance (modification)
- NW 62nd Avenue & NW Beaver Drive (modification)
- Merle Hay Road & Northglenn Drive (modification)

#### City of Urbandale Traffic Signal Design | Urbandale, Iowa

- NW Urbandale Drive & Aurora Avenue
- 72nd Street & Aurora Avenue
- NW 128th Street & Aurora Avenue
- NW 128th Street & Meredith Drive
- NW 128th Street & Douglas Parkway
- NW 156th Street & Douglas Parkway

#### City of Waukee Traffic Signal and Fiber Optic Design | Waukee, Iowa

- SE LA Grant Parkway & SE Westown Parkway
- Grand Prairie Parkway & SE University Avenue
- Grand Prairie Parkway & SE Westown Parkway
- Grand Prairie Parkway & SE Ashworth Road
- SE Ashworth Drive & SE Warrior Lane

# City of Ankeny Traffic Signal and Fiber Optic Design | Ankeny, Iowa

- SW White Birch Street & SW Oralabor Drive
  - Analysis of existing traffic operations, crash patterns, capacity, and evaluation of access alternatives and geometric configurations.

# Ottumwa Hy-Vee Traffic Signal Design | Ottumwa, Iowa

- IA Hwy 149 & Hy-Vee Entrance
  - Analysis of existing traffic operations, crash patterns, capacity, and evaluation of access alternatives and geometric configurations.

# East 67th Street Signing Project | Iowa DOT

Development of a new interstate signing plan to accommodate road widening and a bridge widening through coordination with the Iowa DOT. Prepared signing plans including sign type and location layout, new sign details, sign modifications, calculation of sign post sizes and types, sign and delineator tabulations, quantities and cost opinions.

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