



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

JOHN E. NIXON, CPA  
DIRECTOR

November 24, 2014

Mr. Thomas Sovel  
Spalding DeDecker Associates, Inc.  
905 South Boulevard Street  
Rochester Hills, MI 48307

Dear Mr. Sovel:

**SUBJECT: Indefinite Scope – Indefinite Delivery No. 00497  
2014 ISID General Professional Design Services**

The State of Michigan would like to invite your company to participate in the MiDEAL Extended Purchasing Program. This program allows local units of government to take advantage of existing State contracts for goods and services without going through a lengthy procurement process. MiDEAL members consist of hundreds of cities, villages, counties, townships, school districts, colleges, universities, and non-profit hospitals. A current listing of approved MiDEAL members is available at <http://www.michigan.gov/localgov/0,4602,7-194-28994---,00.html>.

If your company agrees to take part in this program, you will extend the terms, conditions, and pricing of your Indefinite Scope/Indefinite Delivery (ISID) contract to participating MiDEAL members. By amending your contract to participate, you will be opening up a whole new pool of potential customers based on the Qualification Based Selection process the State used to award your ISID contract. The use of your contract by a MiDEAL member will not impact/reduce the dollar limit for use by the State and any executed contract will be with the MiDEAL member.

If you choose to participate, your company must remit an administrative payment, equal to one percent (.01) of all fees collected from MiDEAL members transacted under your ISID contract. The administrative payment must be made within thirty (30) days after the end of each State of Michigan fiscal quarter.

A quarterly report of all MiDEAL activities must accompany the administrative payment fee. A report format along with instructions on where to remit the payment will be provided upon agreement to the terms of this letter.

For more information contact Mary Hanses at (517) 284-7013 or go to [www.michigan.gov/mideal](http://www.michigan.gov/mideal).

Mr. Thomas Sovel  
Spalding DeDecker Associates, Inc.  
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November 24, 2014

If your company is interested in participating in the MiDEAL program, please sign below and return to this letter to the letterhead address, Attention: Anne Watros.

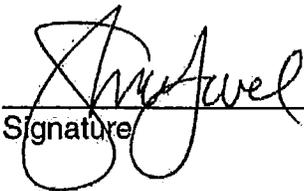
**FOR THE STATE OF MICHIGAN**



Robert C. Hall, RA, NCARB, Director  
Design and Construction Division  
Facilities Administration

**FOR THE PROFESSIONAL**

Spalding DeDecker Associates, Inc., agrees to extend the terms, conditions, and pricing of our 2014 General Professional Design Services contract, No. 00497, to MiDEAL members and will remit the one percent (.01) administrative payment fee along with the quarterly report as outlined.

  
\_\_\_\_\_  
Signature

11/25/14  
\_\_\_\_\_  
Date

Thomas Sovel  
\_\_\_\_\_  
Print Name/Title

## Department of Technology, Management & Budget 2014 ISID - General Professional Design Services



Engineering Service Proposal  
Due: May 1, 2014  
SDA PR14-085

### **Detroit**

1435 Randolph St., Suite 400  
Detroit, Michigan 48226  
(313) 967-4700  
Fax (313) 967-4707

### **Rochester Hills**

905 South Blvd. East  
Rochester Hills, Michigan 48307  
(248) 844-5400  
Fax (248) 844-5404

### **San Antonio**

9120 Old Dietz Elkhorn Rd.  
Fair Oaks Ranch, Texas 78015  
(830) 755-8434  
Fax (830) 755-8435

### **Livonia Field Office**

39293 Plymouth Rd., Suite 102  
Livonia, Michigan 48150  
(734) 293-5200  
Fax (734) 293-5202

### **Cleveland Field Office**

5555 Canal Rd.  
Cleveland, Ohio 44125  
(216) 789-0748



Celebrating  
60 Years!

April 30, 2014

Patrick Mullen  
Irene Jackson Henry, RA, NCARB  
Department of Technology, Management & Budget  
Facilities and Business Services Administration  
Design and Construction Division  
General Office Building, 3B  
7150 Harris Drive  
Dimondale, MI 48821

Re: **2014 ISID – General Professional Design Services**  
**SDA No. PR14-085**

Dear Mr. Mullen and Ms. Jackson Henry:

Spalding DeDecker Associates, Inc. (SDA) is pleased to provide the following statement of qualifications for 2014 ISID - General Professional Design Services to the Department of Technology, Management & Budget. Our goal is to provide consulting engineering and surveying services of the highest quality, effective project management, and innovative solutions to deliver projects on-time and within budget.

SDA is proud of the team of professionals we have assembled to serve the DTMB for building alterations, additions, various facility upgrades, and special maintenance projects. Founded in 1954, SDA's portfolio is widely diverse, encompassing a variety of public infrastructure projects. Throughout the past 60 years, SDA has developed an excellent reputation for providing our clients with effective solutions for the many projects they encounter through infrastructure expansion and maintenance needs.

SDA brings unique elements to its project execution, including a genuine commitment to delivering top-quality services to our clients. As an employee-owned engineering and surveying firm with nearly 90 professionals on staff, we believe in listening to our clients and understanding their needs. In the current economic and development climate, we understand that every public dollar must be spent wisely. Innovative solutions must be pursued, so project requirements are met at the least possible cost.

We are committed to delivering quality consulting engineering services and outstanding design products to the DTMB, and we look forward to working with you as part of your team.

Sincerely,  
**SPALDING DEDECKER ASSOCIATES, INC.**

Thomas J. Soyel, PE  
Vice President

**Department of Technology, Management & Budget**  
**General Professional Design Services**  
**PR14-085**  
**Due: May 1, 2014**

## **Part I – Technical Proposal**

- 1 II-1 Understanding of Project and Tasks
- 2 II-2 Personnel
- 3 II-3 Management Summary, Work Plan, and Schedule
- 4 II-4 Questionnaire

## **Part II – Cost Proposal**

- 5 III-2 Identification of Personnel and Estimated Compensation

## II-1 Understanding of Project and Tasks



Established in 1954, Spalding DeDecker Associates, Inc. (SDA) is an employee-owned consulting engineering firm specializing in infrastructure, land development, and surveying. With offices in Detroit and Rochester Hills, Michigan, and San Antonio, Texas, along with several field offices, SDA offers a diverse core of engineering, surveying, and construction engineering services for municipal, land development, landscape architecture, transportation, and water/wastewater projects.

### **Experience in Providing Consulting Engineering Services**

Seeking a qualified Civil Engineering Firm that can provide cost-effective solutions in its engineering approach, is knowledgeable about the state, communicates well, and is responsive to the DTMB's needs is a very critical step to ensure the DTMB's goals are reached. SDA has been providing civil engineering and surveying services throughout southeast Michigan for 60 years. Our current and wide-ranging client base and the experience of our staff in serving these communities provide us with an advantage that we believe few other firms can offer.

We are committed to the highest standards of performance. Reflecting over six decades, one thing has remained constant; SDA continues to embrace its mission of recognizing client needs and continually striving to exceed client expectations. Our firm has never lost sight of its goal to establish itself as the "Benchmark of Excellence" in the professional field of Consulting Engineering and Surveying.

We understand that the DTMB is sensitive to the costs associated with designing and constructing facilities. Therefore, SDA will work hand-in-hand with the DTMB and State Agency to determine practical and cost-effective project solutions. SDA provides the complete engineering package. We can take a project from the investigation phase through design, construction, and operation and maintenance. Throughout our successful design and project delivery, we incorporate many sustainable ecological solutions and context sensitive design.



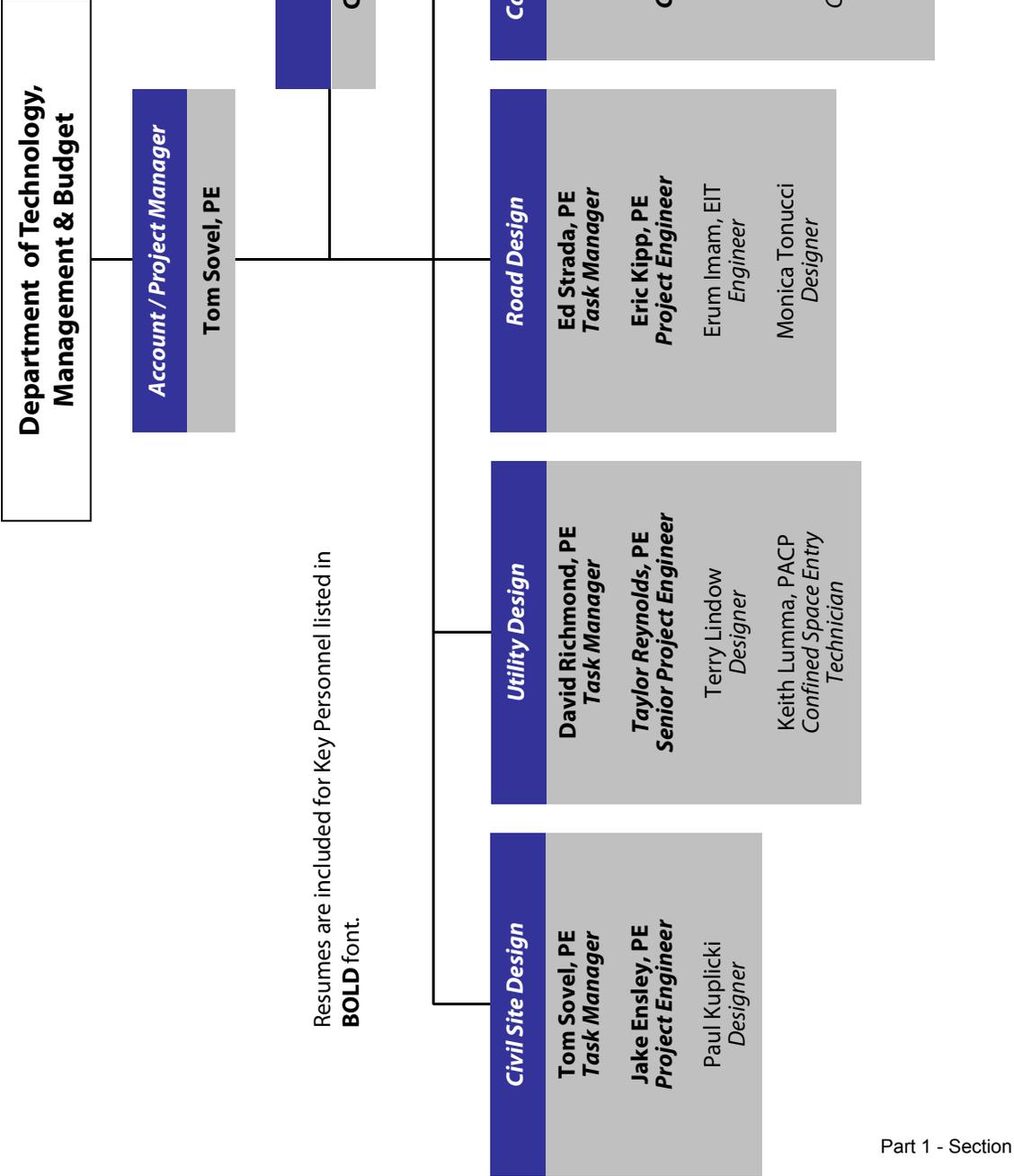
## II-1 Understanding of Project and Tasks

Our design philosophy is simple: Our solutions must solve the problem. We work diligently to understand the challenge. Our design must be constructible and practical. Once complete, our solution must be efficient from an operations and maintenance standpoint.

The sequence of work tasks called out in the State of Michigan standard contract is a good guideline of the anticipated sequencing of the Work Plan, specific tasks, and deliverables needed for typical projects. We understand that work associated with this ISID contract could include any of the seven phases of the standard contract: Phase 100 – Study Phase; Phase 200 Program Analysis; Phase 300 - Schematic Design; Phase 400 – Design Development; Phase 500 - Final Design; Phase 600 – Construction Administration Office; and Phase 700 Construction Administration Field. We understand that each assignment that comes as a result of this contract will likely have different requirements, ranging from the study phase through design and construction.



# Organization Chart



Resumes are included for Key Personnel listed in **BOLD** font.

# Thomas J. Sovel, PE

## Vice President / Account/Project Manager

Thomas J. Sovel, PE has 26 years of experience in the industry and with SDA. Mr. Sovel ensures all engineering projects, initiatives, and processes are in conformance with SDA's established policies and objectives, which ensures efficient coordination and completion of land development projects.

His experience in civil engineering covers a wide variety of projects for both public and private clients. These have included educational, municipal, healthcare, commercial, industrial, and residential projects. His experience includes tasks related to the site engineering design of watermain, sanitary sewer, storm sewer, stormwater master drainage plan development, parking lots, bus loops, and site drainage.

### RELEVANT EXPERIENCE

#### MUNICIPAL/GOVERNMENT

**US Border Patrol, Gibraltar, MI** – Department Manager responsible for site planning and engineering for a new border patrol facility. Project included MDEQ permits for floodplain impacts as well as permitting through the Wayne County Department of Environmental Services for the storm water management system.

**MDOT Oakland Transportation Service Center** – Department Manager responsible for oversight of the site design of a new MDOT office on a contaminated site in Pontiac. Successful coordination with the City, subdivision developer's engineer, environmental consultant, and the client kept the project on schedule and minimized construction costs.

**Courthouse Projects** - Responsible for site planning and engineering work include paving and grading design, storm water management, and sanitary sewer and water main design, for new courthouses:

- **16th District Courthouse, Livonia, MI**
- **52-3 District Courthouse and Sheriff Substation, Rochester Hills, MI**
- **47th District Court, Farmington Hills, MI**

**Dearborn Civic Center (Ford Center for the Performing Arts), Dearborn, MI** - Project Manager for site engineering including grading, paving, utilities, for the additions and renovations to the existing recreation center. Construction work included major site modifications including new parking areas and athletic fields.

**Fire Stations #3 and #4, Macomb Township, MI** – Responsible for project oversight for site planning and design for two new fire stations in Macomb Township. Fire Station #3 required MDEQ permitting for floodplain impacts since it was constructed in the 100 year floodplain of the Clinton River.

**Grand Blanc Township Police Station** - Project Manager for the new 25,000 square feet police station, which was built on existing Township property on Saginaw Road north of Dort Highway. The site engineering work included paving and grading design, stormwater management, sanitary sewer, and watermain design. SDA utilized multiple detention areas and incorporated the large wetland complex on the property into the stormwater management system.

#### EDUCATION

BS, Civil Engineering, Michigan State University, 1988

#### REGISTRATION

PE, Michigan, 1992  
PE, Alabama, 2012  
PE, Arizona  
PE, Arkansas  
PE, California, 2012  
PE, Colorado, 2013  
PE, Connecticut  
PE, Delaware, 2011  
PE, Florida, 2006  
PE, Georgia  
PE, Illinois, 2013  
PE, Indiana  
PE, Kansas, 2013  
PE, Kentucky  
PE, Louisiana  
PE, Maine, 2010  
PE, Maryland, 2010  
PE, Massachusetts, 2010  
PE, Mississippi, 2011  
PE, Montana, 2013  
PE, Nebraska, 2013  
PE, New Hampshire, 2012  
PE, New Jersey  
PE, New Mexico, 2013  
PE, New York  
PE, North Carolina  
PE, North Dakota, 2012  
PE, Oklahoma, 2011  
PE, Pennsylvania  
PE, South Carolina  
PE, South Dakota, 2013  
PE, Tennessee, 2008  
PE, Texas  
PE, Utah  
PE, Virginia  
PE, Washington, DC, 2012  
PE, West Virginia  
PE, Wyoming, 2007

# Thomas J. Sovel, PE

## Vice President / Account/Project Manager

**Lenox Township Hall, Lenox, MI** – Department Manager responsible for site planning and engineering for the new Township Hall project. Innovative measures of stormwater management were implemented on the project, including rain gardens and bio-retention areas. This project is LEED® certified.

**Huron Township Hall, Huron, MI** – Department Manager responsible for site planning and engineering for the new Township Hall project.

**O.P.C. Senior Citizen's Facility, Rochester, MI** – Department Manager responsible for oversight of site engineering for the 90,000sf OPC recreation center.

**New Municipal Building, Northville Township, MI** - Project Manager responsible for design development, construction Documents, bidding, and Construction Phase.

**Fire Station, Northville Township, MI** - Project Manager responsibilities include design development, construction documents, bidding, and construction phase.

### HIGHER EDUCATION

#### **Oakland University Projects, Rochester, MI**

Served as Project Manager overseeing planning and design aspects for numerous projects on the campus. Design work included paving, grading, drainage, road, retaining wall, and utility design for the following projects:

- Lot P17 Improvements
- Upper Athletic Fields
- Recreation Center Drainage Improvements
- Carillon Tower
- New P32 Parking Structure
- Lower Athletic Fields Improvements – Softball and Baseball Fields

#### **University of Michigan Projects, Ann Arbor, MI**

Served as Project Manager overseeing planning and design aspects for numerous projects on the campus. Design work included paving, grading, drainage, road, retaining wall, and utility design for the following projects:

- New Athletic Department Maintenance Facility
- Taubman Health Sciences Library Expansion and Renovations
- Crisler Arena Renovation
- Crisler Arena Player Development Center
- Soccer Spectator and Team Facilities
- Wrestling Center Watermain

**Lake Superior State University Fine Arts Facility, Sault Ste. Marie, MI** - Project Manager in charge of site planning and design for a new performing arts center and classroom building. Site amenities included a new parking lot, modifications/relocations of existing utilities, and design of a truck loading area.

**Walsh College, Troy, MI** - Project Manager responsible for preparing a study to assess the

# Thomas J. Sovel, PE

## Vice President / Account/Project Manager

feasibility of constructing new parking areas and drainage facilities in conjunction with a future addition.

**Rochester College, Rochester Hills, MI** - Project Manager on several college projects since 1994. Projects include site demolition and engineering plans for two new dormitories and access road, including storm and sanitary sewer, water main, paving, and grading. Also a new library, various parking and traffic circulation improvements, and athletic field improvements.

**Cooley Law School, Auburn Hills, MI** – Manager in charge of QA/QC for site planning and engineering to convert the old UAW offices for Cooley. The project included a building renovations and expansion, and a new 300-car parking lot on an existing 67 acre site.

**St. Clair County Community College, Port Huron, MI** – Project Manager in charge of planning and engineering for the site improvements for the 20,000 sf College Center addition.

**Oakland Community College, Southfield, MI** – Project Manager overseeing the planning and engineering for the site utilities, paving, and grading for the 69,000 sf building addition to the Southfield campus.

**Ferris State University, Big Rapids, MI** - Project Manager in charge of planning and design of site improvements for an addition to the Physical Education Building sports arena.

**Schoolcraft College, Livonia, MI** – Project Manager in charge of site planning and engineering for 60,000 sf bio-technology research facility including a 250-car parking lot expansion.

### PAVEMENT MANAGEMENT PROGRAMS

Project Manager overseeing numerous pavement management programs for higher education institutions, K-12 public school districts, and private clients. Services included pavement inventory and evaluation, utilizing pavement management software to input inventory information and analyze data, creating a long range repair plan program, and developing a pavement management report. Programs have been completed for the following:

- **Eastern Michigan University Pavement Management Program, Ypsilanti, MI**
- **Pheasant Run Roadway Maintenance Association Pavement Management Program, Canton Township, MI**
- **City of Northville Pavement Management**
- **Sears/Kmart National Pavement Repair Projects.**
- **Simon Property Group Properties, United States**
- **Swartz Creek Community Schools Pavement Inventory, Swartz Creek, MI**
- **Avondale School District Pavement Management Programs, Auburn Hills, MI**
- **Clarkston Community Schools Pavement Management Program, Clarkston, MI**

**Compuware Ice Arena ADA Compliance Assessment, Plymouth, MI** - Served as Engineer providing ADA survey and compliance assessment, as well as generating corrective action options to fix non-compliance issues.

# Cheryl L. Gregory, PE

## Vice President / QA/QC

Cheryl L. Gregory, PE has more than 10 years with SDA with 26 years of experience in the industry. Ms. Gregory manages and directs the Transportation Department. As the Transportation Department Manager, she plans and directs all aspects of transportation engineering activities within the organization. Cheryl ensures all engineering projects, initiatives, and processes are in conformance with SDA's established ISO 9001 policies and objectives, ensuring efficient coordination and completion of transportation projects.

Ms. Gregory has experience providing project management, QA/QC, design oversight and construction administration on various highway reconstruction / rehabilitation, roadway capital preventative maintenance and enhancement program projects for State, County, and Local jurisdictions. With nearly 15 years' prior experience with MDOT, she is well-versed in State and Federal design standards and policies, as well as the practical applications for local governments. Her experience encompasses road design, traffic safety, environmental assessments, public engagement, non-motorized paths, storm sewer systems, utility coordination, permitting processes and geotechnical investigation. Cheryl is knowledgeable in funding issues. Her unique combination of construction, design and administrative experience enables her to expertly review and oversee the production of high-quality construction plans and specifications.

### RELEVANT EXPERIENCE

**Avon/Livernois Road Intersection Improvements, Rochester Hills, MI** – QA/QC, Account Manager – Responsible for preparing the Transportation Enhancement Grant application for the City of Rochester Hills' use in pursuing grant monies via MDOT to fund the proposed aesthetic improvements. Oversaw the preliminary site evaluation, conceptual plan preparation, budgetary cost estimating, and team coordination. The focus of this project was to provide aesthetic improvements to the intersection of Avon Road and Livernois, in conjunction with adjacent bridge replacement projects designed by others.

**As Needed Design Services for the MDOT Port Huron TSC** – Account Manager and QA/QC – Providing road design services as requested to support the TSC staff. Current assignments include 3R rehabilitation on M-25 through Fort Gratiot and Burtchville Townships.

**Gratiot Boulevard (I-94 Business Loop) from CSX Railroad to Ravenswood Rd, Marysville, MI** – QA/QC Engineer for the reconstruction of the boulevard sections, including evaluation and replacement of the storm drainage system to alleviate long-term drainage and flooding issues for homes along the St. Clair River. Other project highlights include full roadway reconstruction, geometric improvements, grading and driveway construction permits, and close coordination with the residents and City to minimize disruptions.

**Realignment of Local Streets and Utilities under the Blue Water Bridge, Port Huron, MI** – Project Manager and QA/QC engineer, responsible for the realignment of six City streets to improve security for the MDOT-owned Blue Water Bridge. Project included pavement reconstruction and rehabilitation, municipal utility reconstruction, ADA ramp upgrades, landscaping and grading plans. Although the project was administered by MDOT, extensive local agency coordination was required, as well as public information exhibits.

### EDUCATION

BS, Construction Engineering, Lawrence Technological University, Southfield, MI

### REGISTRATION

Professional Engineer, Michigan, 38185, 1992

Professional Engineer, Texas, 111249, 2012

Professional Engineer, Illinois, 062.065151, 2013

### PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers  
Institute of Transportation Engineers  
Women's Transportation Seminar  
Chapter Honor Member, Chi Epsilon Civil Engineering Honor Society

### SPECIALIZED TRAINING

MDEQ Storm Water Management - Construction Site, Certificate No. C-00674. Expires 7/1/15.

The Modern Roundabout as a Traffic Signal Alternative – ASCE Continuing Education

Project Manager's Bootcamp- Continuing Education- PSMJ Professional Resources, Inc.

Contract Review & Revision III: Additional Clauses- XL Design Professional - Continuing Education

Asbestos Awareness Training- 40 CFR Part 763 Certificate – Continuing Education

Geotextile Engineering – NHI Course #13213

Avoidance and Handling of Construction Contract Claims – NHI Course #13437

# Cheryl L. Gregory, PE

## Vice President / QA/QC

**M-3 (Gratiot Ave) Rehabilitation, Sunnyview St to Sandpiper St, Mt Clemens & Clinton Twp, MI** – Project Manager and QA/QC Engineer responsible for design of rehabilitation (cold milling, concrete patching, and HMA overlay) of 4.1 miles of urban trunkline for MDOT. Services include identifying locations for and preparing Permits to Close Driveways to implement access management. The project also involves reconstruction of Metro Pkwy intersection, geometric improvements at intersections, signing and guardrail upgrades, and upgrading over 200 sidewalk ramps to current ADA standards. Coordinated with various stakeholders, including City of Mt. Clemens, Mt. Clemens Downtown Development Authority, Clinton Township, and the Michigan Transit Museum. Extensive maintaining traffic plans were also required for stage construction at the Metro Pkwy intersection, NB & SB M-3 bridges over the Clinton River, and other partial-reconstruction locations along the corridor.

**2009 Novi Pathway Construction** – Quality Assurance/Quality Control engineer for design of 6 pathway segments including ADA ramp and landings with pedestrian push button upgrades. Responsible for overall design, easement document preparation, and RCOC permit application. Project to be constructed in 2009.

**Professional Engineering Services for Road and Bridge Design and Related Activities 2003-2014, Road Commission for Oakland County, MI – Account manager and QA/QC Engineer** - The as-needed services provided include: Bridge Design; Bridge Inspection; Preliminary and Construction Survey; Geotechnical Engineering Services; Roadway and Culvert Design; Construction Engineering, including testing; Right-of-Way Acquisition; Project Management; Traffic Signal Design, including Intelligent Traffic Systems (ITS) and SCATS (Sydney Coordinated Adaptive Traffic Signals); Advanced Traffic Management including design and evaluation of roundabouts; and Environmental Assessments and Impact Statements.

**Pinnacle Aeropark Road Improvements at I-275/Sibley, Huron Township, MI** – QA/QC Engineer for reconstruction design of nearly 4 miles of roadways surrounding the proposed Aeropark development complex. Designs included constructing a 1.2 mile boulevard roadway for Sibley at I-275, complete traffic study and preliminary EA, road realignment, and drainage design, requiring MDEQ permitting for wetland impacts, regulated drainage courses, and NPDES. Attended numerous coordination meetings with local officials and made presentation to Township Planning Commission on behalf of Wayne County. The project required close coordination with Huron Township, MDOT, MDEQ, and Wayne County Agencies, including the Dept. of Environment, Dept. of Public Services, and the Dept. of Economic Development.

**John R Rd Rehabilitation, N of 12 Mile Rd to 14 Mile Rd, Madison Heights, MI** – Project Manager responsible for overseeing design of 1.7 miles of concrete pavement rehabilitation (cracking & seating, cold milling, and HMA overlay) of a 5-lane urban roadway for RCOC. The project also involved design of maintaining traffic plans, as well as pavement marking plans. Pedestrian and motorist access to numerous businesses along the roadway could not be interrupted during construction.

**Paint Creek Trail Resurfacing/Reconditioning, Oakland County, MI** – Department Manager/Project Manager. The Paint Creek Trailways Commission owns and operates the non-

# Cheryl L. Gregory, PE

## Vice President / QA/QC

motorized trail with the participation of all four communities through which it runs. The trail is approximately 8.5 miles long and 8 feet in width. The project involved resurfacing/reconditioning of the entire trail: Rochester 0.6 miles; Oakland Township 5.3 miles; Rochester Hills 1.4 miles; and Orion Township 1.2 miles. As Project Manager, coordinated with all four affected communities through which it runs to achieve consensus on the proposed work and budget.

**Stephenson Highway from 14 Mile Road to I-75, Troy, MI** - Department Manager and Project Manager responsible for overseeing the design, plans, and specifications for 1.75 miles of pavement rehabilitation including concrete pavement repairs, HMA overlay, adding curb and gutter, drainage improvements, geometric improvements, ADA ramp upgrades, pedestrian signal upgrades, and signing upgrades for the City of Troy. Developed pavement repair alternatives to assist City of Troy in long-range pavement management strategy.

**M-85 (Fort St.) at CN/GTW Railroad Crossing (G01 of 82211), Trenton, MI** - Department Manager responsible for the design of the reconstruction of the M-85 at CN/GTW (G01 of 82211) at-grade railroad crossing. The project involved replacement of the existing railroad crossing at M-85, as well as the adjacent trail, adjusting railroad grades, replacing approach roadway pavement, providing proper drainage, and maintaining traffic.

**Brightmoor Neighborhood Development, Detroit, MI** - QA/QC Engineer - Evaluation of the street network utilizing a visual condition rating system. Project involved establishing a condition inventory of approximately 4 square miles of City streets (Good, Fair, Poor) to aid in determining rehabilitation and redevelopment plans for adjacent land and infrastructure planning.

**Tienken Road Over Stoney Creek, Oakland County, MI** - QA/QC Engineer for all Roadway and Traffic & Safety elements of the project. The project work included complete reconstruction of the structure over Stoney Creek. The structure is adjacent to the Historic District of Rochester Hills. Major communication effort ensured that the community understood the proposed size, shape and appearance the new structure. Pedestrian access was provided on one side of the bridge, a feature that the existing structure lacked.

**Grand River over Kent Lake, South Lyon, MI** - QA/QC Engineer for all Roadway and Traffic & Safety elements. Design of new two-span, 131 ft long bridge. Proximity of this bridge to the I-96 bridges over Kent Lake and the existing ground conditions made this project a challenge to develop plans and specifications to replace the structure and the adjacent approach roadway. Since this bridge was also near Kensington Metro Park, context sensitive design was used to develop an aesthetic features on the bridge that would be suitable for a park setting.

**Silver Bell Road Bridge over CN Railroad, Orion Township, MI** - QA/QC Engineer for all roadway and Traffic & Safety elements. Project involved the design of the replacement of a three-span, 222.5'-long bridge over CN Railroad. Project included design of reinforced earth wall, drainage improvements, and extensive approach work to change the grade approximately two feet, as well as accommodate a severe abutment skew.

# Jacob R. Ensley, PE

## Project Engineer

Jacob Ensley has seven years of experience in the industry, all with SDA. Mr. Ensley has been part of the Land Development and Pavement Management Teams and has represented SDA on many projects for commercial, institutional, residential, and industrial sites. He has performed initial field investigations to collect data to develop improvement plans; designed plans and specifications for land development and pavement management projects; performed pavement inspection using PASER rating system for many facilities/programs; performed soil borings and analysis; implemented and customized CartêGraph Pavement Management software; prepared current and forecasted pavement repair budgets; developed databases to track facility/program information; developed efficient field data collection procedures; organized/lead client meetings; conducted pre-bid and pre-construction meetings; and performed punch list project close out procedures.

Mr. Ensley has field experience as a Survey Assistant and Construction Engineering Inspector. He has also been involved in construction contract administration, reviewing municipal documents such as as-built plans and easements, and is well versed on current ADA standards for sitework. He has experience with FieldBook and FieldManager while working as a Construction Engineer. Mr. Ensley is also proficient in AutoCAD, Land Desktop, Civil 3D, Microsoft Excel, Microsoft Project, and pavement management software such as Roadsoft GIS, CartêGraph PAVEMENTview, and CartêGraph PAVEMENTview Plus.

### RELEVANT EXPERIENCE

**Oakland University Lot 32 Parking Structure, Rochester, MI** – Engineer responsible for site engineering design for new parking structure. The project includes design of a new campus road for ingress/egress to the new structure, re-routing of storm sewer, and interaction and permitting with the MDEQ for the wetland crossing on the property.

**Oakland University Upper Athletic Fields, Rochester, MI** – Engineer responsible for earthwork analysis and site utility design for the upper athletic field improvements. The project involves an analysis of cut/fill quantities between the existing and proposed surfaces to achieve a balanced site.

**Oakland University Lower Athletic Fields, Rochester, MI** – Engineer responsible for site design of the softball and baseball field improvements. The project involved designing a modular retaining wall, creating ADA compliant sidewalk paths for the spectator areas as well as designing site drainage.

**Dearborn Public Schools – 2013 Bond Projects, Dearborn, MI** – Engineer responsible for site engineering design for multiple school additions and multiple school pavement repair projects. The projects include design of site utilities, new parking lot configurations, and site grading for multiple school additions. The pavement repair projects include the inspection of existing conditions at each school, and designing the pavement repairs including plans and specifications.

**Dearborn Public Schools – Haigh E.S. Drop-Off Lane, Dearborn, MI** – Engineer responsible for

### EDUCATION

BS, Civil Engineering, 2007, Lawrence Technological University

### REGISTRATION

PE, Michigan, 2012

### SPECIALIZED TRAINING

AutoCAD: Core Concepts  
Avatech Solutions  
March 2008

CartêGraph PAVEMENTview and  
PAVEMENTview Plus  
August 2008

AutoCAD: Civil 3D 2011  
IMAGINiT Technologies  
March 2011

PASER Training  
Michigan Transportation Asset  
Management Council  
March 2011, March 2012, March 2014

# Jacob R. Ensley, PE

## Project Engineer

site engineering design of drop-off lane within city right-of-way. The project includes widening a portion of the existing road to construct a drop-off lane for the school's busses which includes re-grading the area for drainage.

**West Bloomfield School District – 2013 Sinking Fund Projects, West Bloomfield, MI** – Engineer responsible for design of multiple pavement repair projects throughout the district. The projects include reconstructing parking lots, re-grading portions of sites to improve drainage, designing exterior stairways and an accessible ramp down a steep hill for an athletic field, and repairing a damaged section of storm sewer culvert.

**Walled Lake Consolidated Schools – 2014 Paving Projects, Walled Lake, MI** – Engineer responsible for design of pavement repairs for two of the district's schools. The projects include reconstructing and rehabilitating portions of the sites' parking lots and coordination with local permitting agencies.

**Allegan Public Schools – Field House, Allegan, MI** – Engineer responsible for site engineering design for new athletic field house building. Project included designing underground utilities for the new building, and grading and storm drainage.

**Royal Oak Schools, Royal Oak, MI** – In 2013, SDA was selected as the civil engineering consultant for the District. Engineer responsible for the following projects in the District:

- Addams Elementary School – Paving and Drainage Improvements
- Upton Elementary School – Paving and Drainage Improvements
- Royal Oak Middle School – Paving Improvements
- Royal Oak High School – Paving Improvements and Sewer Repair

**Northville Public Schools, Northville, MI** – In 2013, SDA was selected to provide civil engineering consulting services for the District. Engineer responsible for the following projects in the District:

- Pavement Condition Assessment (District wide)
- Amerman Elementary School – Paving Improvements
- Northville High School – Tennis Court Drainage Improvements

**West Bloomfield School District – Doherty Elementary School, West Bloomfield, MI** – Engineer responsible for site engineering design of re-configured layout entrance driveway and road widening. Project included re-designing the entrance driveway, widening the road at the entrance driveway to provide turning lanes and deceleration lanes, and installing a traffic signal at the entrance drive. Responsibilities included designing grading, drainage, and paving plans for the site modifications.

**Eastern Michigan University Pavement Management Program, Ypsilanti, MI** – Engineer responsible for pavement inventory and evaluation for the Eastern Michigan University campus. Responsibilities included providing onsite inspection and documentation of the PASER ratings for all campus pavement; utilizing pavement management software to input inventory information and analyze data; creating a ten-year repair plan program, and developing the pavement

# Jacob R. Ensley, PE

## Project Engineer



management report.

**Compuware Arena ADA Compliance Project, Plymouth, MI** – Served as Engineer providing ADA survey and compliance assessment. Responsibilities included visiting site and performing field evaluation to determine non-compliant items per the current ADA standards; creating report for client to present the deficient items and the corrective action options to bring the site into ADA compliance; coordinating with the client to determine a cost efficient repair strategy that would also bring the site into compliance with current ADA standards; developing construction documents including plans and specifications once the final option was chosen; assisting the client with bidding procedures including conducting a pre-bid meeting; assisting with construction administration procedures including conducting a pre-construction meeting; performing onsite inspections to ensure conformance with construction documents; and final project field evaluation to document that the site was brought into ADA compliance.

**Simon Property Group Properties, United States** – Serves as Engineer providing pavement management and site engineering services for Simon Property Group at various mall and shopping center properties across the country. Services include rating pavement networks and developing repair scenarios and projected costs as part of Simon’s capital improvement program. Develops construction plans and provides bidding assistance and construction management services. Jake has worked on over twenty projects in over seven different states.

**Sears/Kmart National Pavement Repair Projects** – Serves as Engineer providing pavement evaluation for multiple sites across the U.S. Provides initial inspection of existing conditions including pavement, sidewalk, curb, and ADA site features; develops pavement reports; creates five and ten year repair plans; and develops construction documents including drawings and technical specifications. Conducts pre-bid meetings, pre-construction meetings, construction contract administration, and is responsible for the construction quality control for the installation and replacement of numerous paving projects.

**Canton Township Pheasant Run Roadway Maintenance Association Pavement Management Program, Canton Township, MI** – Serves as Engineer providing a ten-year pavement management program for a residential roadway maintenance association. The initial pavement management evaluation consisted of inspecting, rating and documenting all of the existing conditions of the residential roads for three subdivisions; performing pavement cores and material testing to review the existing soils; developing a ten-year program using pavement management software; and preparing the final report including evaluation/analysis and work plans. Also serves as Design and Construction Engineer on a yearly basis for the program’s yearly repair projects based on the initial ten-year program. Responsibilities include attending client meetings to discuss the yearly program; preparing construction drawings, technical specifications, and bid/contract documents; full bid services; and construction contract administration including part-time construction observation.



# David E. Richmond, PE

## Utility Task/Project Manager

David E. Richmond, PE is an accomplished project manager in municipal and private land development. With over 28 years of experience, he is a recognized expert by his peers in stormwater, water distributions and wastewater collection systems. Mr. Richmond has led the design and construction efforts for several local units of government in a variety of stormwater, water distribution and wastewater collection systems in Michigan and North Carolina. David possesses a proficient technical background, strong organizational abilities and is dedicated to the success of his projects.

As Project Manager of SDA's Municipal Engineering Services Group, Mr. Richmond is responsible for project and staff management on water/wastewater and water resources projects ranging from sanitary sewer overflow (SSO) control programs, to detailed drainage studies, watershed master plans, design of sanitary and storm sewer collection systems, design of water distribution systems and facilities, and natural stream channel design. He has also managed projects utilizing Green Infrastructure and Low Impact Development (LID) techniques, including bio-swales, and bio-engineered detention facilities.

David's primary focus is on the design and construction of wastewater collection systems (sanitary sewer systems) as well as combined and stormwater systems and water distribution networks. Mr. Richmond is also responsible for the management of municipal clients, including assisting staff with the review of permit applications sent to the municipality, preparation of design and construction plans for various infrastructure projects, assistance with permitting projects and providing general assistance with engineering related issues.

David has also managed several large-scale private land development projects in Michigan and North Carolina including multi-use residential developments, industrial subdivisions, commercial and industrial buildings and large scale computer data centers. Mr. Richmond has performed several floodplain/floodway studies to obtain Letters of Map Changes (LOMCs) from FEMA for small- and large-scale site developments.

Through these years and diverse projects, David has acquired significant knowledge and understanding of Michigan DOT, Michigan DEQ, U.S. Army Corps of Engineers, and FEMA permitting requirements and technical standards.

### RELEVANT EXPERIENCE

**Burris Road Wastewater Pump Station, City of Newton, Catawba Co., NC** - Project Manager responsible for the design and preparation of construction documents, permitting through the state of North Carolina Department of Water Quality, and bidding and contract documents for the construction of duplex pump station and 12,500 linear feet. The project was needed to eliminate overflows associated with an inadequate pump station and gravity sewer. Prepared the analysis of the existing pump station and infrastructure and developed the conceptual layout of the new system to eliminate the overflows into the surrounding streams during periods of peak flows. Managed the development of the hydraulic model and final layout of the system and assisted the community in securing financing from Clean Water Management Trust Fund and the State of North of Carolina.

### EDUCATION

- B.S., Civil/Environmental Engineering, Lawrence Technological University (1996)
- B.S., Industrial Technology, Central Michigan University (1866)

### REGISTRATION/CERTIFICATIONS

- Professional Engineer, Michigan (1998)
- Professional Engineer, North Carolina (2007)
- Professional Engineer, Virginia (2010)

### TECHNICAL CAPABILITIES

**Other:** Microsoft Word, Excel, PowerPoint,

### TRAINING/SEMINARS

- Wetland Determination, Feb. 1998
- Sediment and Erosion Control, May 2008
- Urban Stormwater Techniques, September 2011
- Management Training, June 1999

### PROFESSIONAL AFFILIATIONS

- American Public Works Association

# David E. Richmond, PE

## Utility Task/Project Manager

**W. 18<sup>th</sup> to W. 15<sup>th</sup> Sanitary Sewer Replacement, City of Newton, Catawba Co., NC** - Project Manager responsible for preparing construction documents and the construction of 2,300 linear feet of a failing gravity sanitary sewer line that ranged in depth from 8 feet to 24 feet and is adjacent to a stream and a shopping center. A portion of the sewer that is 24 feet deep is in a 50 foot wide corridor bounded by a shopping center on one side and a 24 foot high embankment down to the stream on the other side. Through upstream analysis, it was determined that the sewer could be elevated 2 feet allowing the new sewer line to be jack and bored adjacent to the building and avoid disturbing the building foundation and the stream. The remainder of the line was replaced adjacent to the existing line and the old line removed once the new line was tested and placed into service. Permits were required from North Carolina Department of Water Quality and North Carolina Department of Environment and Natural Resources.

**Shannonbrook Water Line Replacement – Phases 1-3, City of Newton, Catawba County, NC** - Project Manager responsible for the preparation of construction and bid documents and oversee the construction for the replacement of 15,000 linear feet of 8" watermain. The project was completed in 3 phases, each consisting of approximately 5,000 linear feet. The project consisted of replacing an existing 8" pvc watermain with 8" ductile iron watermain and appurtenances, and replacing water meters within the subdivision without service disruption to the existing customers.

**South Mills Low Pressure Sewer System, Camden Co., NC** - Project Manager responsible for the coordination and development of construction plans, bid documents and securing necessary permits to serve a community with several failing septic fields with low pressure sewer system. The Village of South Mills, located in Camden County, North Carolina sits adjacent to Great Dismal Canal scenic inter-coastal waterway and has experienced several residences on small lots that were experiencing failing septic fields with no room to replace them. Camden County applied for, and received grants from Clean Water Management Trust Fund and Rural Center of North Carolina to install low pressure sewer system to serve the community. The construction involved the placement of 100 individual pumps, associated line work and a duplex pump station to convey the effluent to the county's wastewater treatment plant. The permit process involved North Carolina Department of Environment, North Carolina Department of Water Quality, North Carolina Department of Transportation and the U.S. Army Corps of Engineers.

**US HWY 17 Rest Area Wastewater Pump Station, Camden Co., NC** - Project Manager responsible for design and construction of a duplex wastewater pump station to serve the existing North Carolina Department of Transportation rest area facility. The rest area wastewater was being conveyed to two separate septic fields that were experiencing issues and in conjunction with the South Mills sewer project the rest area was connected to Camden County's public sanitary sewer system. The pump station was designed to pump into an existing force main along US HWY 17 that was connected to the county's wastewater treatment facility. The project was bid in accordance with North Carolina Department of Transportation requirements. Permits were obtained from North Carolina Department of Transportation and North Carolina Department of Water Quality.

**North River Campground Watermain Extension, Camden Co., NC** - Project Manager

# David E. Richmond, PE

## Utility Task/Project Manager

responsible for the design, bidding and construction of 6,500 linear of 6" watermain extension to serve an existing campground with public water. The watermain was designed adjacent to the existing asphalt roadway through a low lying area along the coast of North Carolina. A portion of the watermain was directionally drilled due to high water table and the proximity to the roadway. Permits were required from North Carolina Department of Transportation and North Carolina Department of Environment and Natural Resources.

**Harper Avenue Drainage Repair, City of Lenoir, Caldwell Co., NC** - Project Manager responsible for the development of construction and bid documents to repair re-occurring sink holes in a major road into the downtown area of the city. The project consisted of replacing a failing corrugated metal pipe culvert with a concrete box culvert. To avoid closing a major access point to the city during normal business hours, the work was performed during daytime and nighttime hours over a weekend which required close coordination with the contractor and essential city departments.

**Cambridge Court Subdivision Flooding, City of Lenoir, Caldwell Co., NC** - Project Manager responsible for analyzing the cause of flooding of residences within the subdivision during times of heavy rainfall and provide recommendations to eliminate the flooding. The subdivision was developed with limited stormwater infrastructure and with the subsequent development of an adjacent subdivision, the existing system became overwhelmed and caused severe flooding of the road and residences. The contributing drainage area was modeled and plans were developed to provide additional storm drainage, which included the installation of new trunk line storm line to the outfall, provide additional catch basins and connect the adjacent subdivision to the system.

**Royal Troon on the New Course, Orion Twp., Oakland Co., MI** - Project Manager/Engineer responsible for the design and construction of 85 unit detached residential site condominium development. The project involved planning and preparation of construction documents for roadway, grading, storm sewer, sanitary sewer, watermain, soil erosion and entrance plans. Permitting through Orion Twp., Road Commission for Oakland County, Oakland County Soil Erosion and Michigan Department of Environmental Quality.

**Walden Ridge Subdivision, Orion Twp., Oakland Co., MI** - Project Manager responsible for the design and construction of the 20 lot subdivision on Waldon Road. Work included grading, roadway design, storm drainage and control, sanitary sewer, watermain and road widening plans for Waldon Road. Permits were obtained from Orion Twp., Road Commission for Oakland County, Michigan Department of Environmental Quality

# Taylor E. Reynolds, PE

## Senior Project Engineer

Ms. Reynolds has 17 years of experience in the design of sanitary sewer, storm sewer, water main, pathways, and roadways. She is responsible for the day-to-day client communication required for complex and varied projects. Ms. Reynolds has worked closely with local, county, and state permit agencies and private utilities for project coordination. Her varied projects have provided Ms. Reynolds with expansive opportunities in client and resident coordination. Ms. Reynolds' experience includes multiple years of pathway design, meeting the ever-changing ADA standards, while finding a balance between client needs and resident satisfaction. She pursues continued training by outside agencies to be up to speed on ADA compliance concerns for our clients, including compliance for development sites, pedestrian facilities along public right-of-way, as well as ADA compliance of pedestrian detours around construction activities and ADA compliant snow removal practices. She has been responsible for presenting projects to residents and Municipal Boards. Ms. Reynolds has extensive experience in site plan review for conformance to local, state and federal regulations and in accordance with accepted engineering practices.

### RELEVANT EXPERIENCE

**Macomb Street Bridge Water Main, City of Monroe, MI** – Designed the suspended 12" water main for a bridge replacement project over the Raisin River.

**11 Mile Delwal Water Main Extension, City of Novi, MI** – Project Engineer responsible for the design and construction engineering services for a 3,000 foot 8", 12", and 16" diameter water main to provide a master planned water main loop serving existing and future developments. This project required the design of a directionally-drilled HDPE pipe segment under a stream regulated by Oakland County and the MDEQ. Also responsible for the development of required specifications to provide connections between differing water main pipes for the project.

**Card Road Sanitary Sewer, Macomb Township, MI** - A developer funded Township project consisting of 1 Mile of 10", 15", and 21" trunkline sanitary sewer.

**Section 30 Water Main Replacement, City of Troy, MI** – Project Engineer responsible for the design of 8,000 feet of 8" and 12" HDPE water main replacement featuring directional drilling technology. An evaluation report of construction alternatives was prepared for City's review. This \$1.1 million project included the reconnection of approximately 150 service leads throughout a well-established residential area with large mature trees and tightly located existing underground utilities.

**21 Mile Road Sanitary Sewer, Macomb Township, MI** - A developer funded project consisting of 1200 feet of 36" trunkline sanitary sewer, including tunneling beneath a County Drain.

**Section 10 Water Main Replacement and Drainage Improvements, City of Troy, MI** – Project Engineer responsible for the design of 6,000 feet of 10" and 12" water main replacement throughout an established residential setting. The design of this \$1.3 million

### EDUCATION

Bachelor of Science Civil Engineering  
University of Kansas, 1996

### REGISTRATION

Professional Engineer  
Michigan, 2001, #47487

### TRAINING

OSHA 30 Hour, 2012

### ORGANIZATIONS

Orion Safety Path Advisory Committee  
Chair 2012 – Present  
Member 2010 – Present

Oakland County  
Trails Water Land Alliance  
Member 2010 - Present

# Taylor E. Reynolds, PE

## Senior Project Engineer

project included a complex drainage evaluation, involving ditch regrading and the design of new underdrains and catch basin locations. This project required obtaining multiple permits and easement acquisition.

**Livernois, Chopin-John R Water Main Replacement, City of Troy, MI** – Project Engineer responsible for the design of 2800 feet of 12” water main replacement along a major road.

**Fernleigh Water Main Replacement and Drainage Improvements, City of Troy, MI** – Project Engineer responsible for the design of 2,600 feet of 12” water main replacement. The design also included ditch regrading, underdrain and catch basin placement, as well as the design of a central storm sewer through this existing residential area.

**Romeo Plank Road Sanitary Sewer, Macomb Township, MI** - A developer funded Township project consisting of 1000 feet of 12” trunkline sanitary sewer.

**State of Michigan, DTMB, Lansing, MI** – Provided construction coordination and client communication and documentation for building addition and interior build out projects including VTS Motor Pool Relocation to the Hall of Justice and Department of Community Health TB Laboratories Remodeling.

**Cascade/Union Lake Road Sanitary Sewer, Charter Township of White Lake, MI** – Design Engineer on a developer funded Township project consisting of 2200 feet of 10” and 12” trunkline sanitary sewer in an existing residential area.

**Upper Straits Beach and Upper Long Lake Woods Low Pressure Sanitary Sewer SAD's, Charter Township of West Bloomfield, MI** - Project Engineer for the Upper Straits Beach and Upper Long Lake Woods Low Pressure sanitary sewer system extensions. These projects were constructed as Special Assessment Districts to bring sanitary sewers to lake areas where septic field leachate had become a concern for the residents. These projects involved the design and construction of over 8,000 linear feet of 2” and 3” and 6” HDPE low-pressure sewer directionally drilled to minimize disruption to the existing residents. This project made public sanitary sewers available to approximately 125 properties in established subdivisions previously served by private septic systems.

**North Avenue Sanitary Sewer Project, Charter Township of Clinton, MI** – Design Engineer on 3,350 feet of 10” sanitary sewer ranging in depth from 10 feet to 22 feet, including a railroad crossing, in existing industrial and residential areas. Responsible for writing contract specifications and obtaining municipal approvals and permits.

**Pontiac Lake Sanitary Sewer Extension, Charter Township of White Lake, MI** - Project Engineer responsible for coordinating the construction of a \$4.9 million sanitary sewer extension in the residential communities surrounding Pontiac Lake. This project included the directionally drilled installation of 29,000 feet of low-pressure sewer and associated grinder pump systems. The project required the abandonment of septic tanks and connection of grinder pumps for over 400 residences on lake property to improve lake quality. The project

# Taylor E. Reynolds, PE

## Senior Project Engineer

locations featured limited workspace and required coordination with contractors, residents and Township Officials. Ms. Reynolds was the primary resident contact for this complex project. This project featured SRF funding from the State of Michigan with extensive coordination required throughout its construction.

**Elizabeth Lake Road / M-59 Pumping Station and Trunkline Sanitary Sewer Extension, Charter Township of White Lake, MI** – Project Engineer for the design completion and construction management of a 3.5 mile transmission sanitary sewer which included both gravity and force main extensions as well as a regional pumping station to serve a new development area within White Lake Township. Responsible for permitting activities through the MDEQ, MDOT, RCOC and local jurisdictions. Coordination with new development construction activities and easement acquisition. This project included significant modification of the Township’s Sanitary Sewer Master Plan and re-establishment of the sewer district served by the trunkline extension.

**Bogie Lake Road Sanitary Sewer Extension, Charter Township of White Lake, MI** – Project Engineer responsible for the design and permitting of a low pressure sanitary sewer system within RCOC right-of-ways along Bogie Lake Road and Oxbow Lake Road. This sewer was designed to serve a residential development and also included a larger future service area within the Township.

**Teggerdine Road Sanitary Sewer, Charter Township of White Lake, MI** – Project Engineer for the design of 3,000 feet of low pressure sewer to serve an existing subdivision and adjacent commercial properties.

**Williams Lake Road Sanitary Sewer and Pump Station, Charter Township of White Lake, MI** – Project Engineer responsible for the design and construction of a gravity sewer, force main and pump station project extension serving two residential developments and other tributary areas.

**Groesbeck Highway Rear Lot Storm Sewer, Charter Township of Clinton, MI** – Design Engineer for 3,900 feet of 18-inch to 42-inch storm sewer, including a railroad crossing, along existing industrial and residential areas. This project reduced the need for existing detention ponds. Wrote contract specifications and obtained municipal approvals and permits.

**Gratiot Avenue Water Main Replacement Phase III, Charter Township of Clinton, MI** – Design Engineer for 5300 feet of 12” water main replacement, through an existing commercial thoroughfare within the MDOT right-of-way. Responsible for writing contract specifications and obtaining municipal approvals and permits.

# Edward Strada, PE

## Road Design Task/Project Manager

Mr. Strada has 15 years of transportation and civil engineering experience. Areas of expertise and experience include design of roads; maintenance of traffic and construction staging; traffic control and safety; utility coordination; sanitary and storm sewers; site plan design; and water distribution. He is experienced with design and construction standards set by MDOT and several municipalities and county road commissions.

Mr. Strada has a variety of experience in transportation projects. Areas of expertise and experience include design of local streets, freeways, and bridge approaches; sanitary and storm sewers; and maintenance of traffic, signing and pavement markings. He has extensive knowledge and application of AASHTO and MDOT design and construction standards. Mr. Strada has been involved in the design and reconstruction of numerous roads and bridges. His responsibilities include project management, detailed design, estimates, coordinating with government agencies, permit applications, and completing specifications/bidding documents. He is proficient and current with Microstation V8i utilizing Geopak with Corridor Modeler for design and plan preparation.

### RELEVANT EXPERIENCE

**M-1 RAIL Streetcar System, Detroit, MI** – Owner's representative for M-1 RAIL's 3.3-mile modern streetcar system that will travel between downtown and the New Center area in Detroit. M-1 RAIL's portion of the project includes the oversight of final design and construction of new track and track slab, an electrification system, 19 stations and loading platforms, and a vehicle storage-and-maintenance facility.

**I-696 Integrated Corridor Management (ICM), Macomb & Oakland Counties, MI** – Development of an ICM System along the I-696 corridor from Dequindre to Gratiot Avenue. The system will employ traffic signal interconnect, dynamic traffic guidance signs, CCTV cameras, and enhanced static guide signing installed along the I-696 service drives to guide motorists and manage traffic during traffic incidents on I-696.

**I-96 Reconstruction from Newburgh to Melvin, Livonia, MI** – Design for the reconstruction of 3.6 miles of I-96 near Detroit. This portion of the freeway is a major commuter route into downtown Detroit from the western suburbs. The project will reconstruct eight lanes of urban freeway and slip ramps at four interchanges and rehabilitate 20 bridges. The project involves design of signing, lighting and drainage upgrades.

**I-94 Design Modification, analysis and Evaluation, MI** – Evaluating proposed design modifications to determine impacts to project quantities, cost and schedule. This freeway corridor safety analysis and I-94 operational analysis project involved evaluating MDOT's I-94 Bold, New Plan for Success developed at the 2011 Success Management Workshop that identified potential cost and schedule savings

**ITS Fiber Design between MITSC and BWBOC, Wayne, Macomb and St Clair Counties, MI** - Coordination and design of a fiber optic trunk network between the Michigan Intelligent Transportation System Center in Detroit and the Blue Water Bridge Operations Center in Port Huron Michigan including connecting existing wireless ITS devices along the corridor.

**ITS Design and System Manager Services for I-275; I-75 to I-96/M-14 Interchange, Wayne and Monroe Counties, MI** – Coordination and design of 30 miles of new fiber optic cable and

### EDUCATION

MBA, Colorado State University, 2011

BCE, Civil Engineering, University of Detroit Mercy, 1999

### REGISTRATION

Michigan – PE 50703

# Edward Strada, PE

## Road Design Task/Project Manager

conduit interconnecting new and existing CCTV cameras, vehicle detectors, and dynamic message signs. The innovative communications system is the first in Michigan to use Layer 3 switches at devices locations, providing a fully redundant, routed network that tie into the regional backbone fiber system.

**Hub Ring Fiber Design, Wayne, Oakland and Macomb Counties, MI** - Design of conduit and fiber in Wayne, Oakland and Macomb Counties to replace existing leased fiber on the Hub Ring with MDOT-owned fiber.

**Blue Water Bridge Freeway Reconstruction of I 94/I-69 between Lapeer Road and the Black River Bridge, St. Clair County, MI** - Design for the reconstruction of the I-94/I-69 freeway, located along I-94/I-69 from just north of Lapeer Road to just south of the Black River in Port Huron Township. The project includes the reconstruction, widening and realignment of the freeway, reconstruction of the two interchanges at the Lapeer Road Connector and Water Street along with replacement of the existing bridges carrying these roadways over the freeway, the replacement of the Stocks Creek culvert, the demolition of the existing Welcome Center at Water Street and its replacement with a new, larger Welcome Center located west of the Lapeer Road Connector, creation of a wetland mitigation site behind the proposed Welcome Center, and landscaping and aesthetic enhancements.

**I-96 Service Drive Bridges over the Rouge River, Detroit, MI** - Design of bridge rehabilitation for the two bridges carrying the I-96 Service Drive bridges over the Rouge River. The project includes deck replacement, pin and hanger replacement, existing structural steel cleaning and coating, scour countermeasures, approach work and electrical work.

**Detroit Metropolitan Wayne County Airport On-Call Traffic Engineering and Planning Services, Romulus, MI** - Performing on-call traffic engineering tasks as assigned by the WCAA. Projects included safety assessments, signing reviews and signing inventory on public roadways.

**As-Built Drawing Development for the North Terminal Redevelopment, Detroit Wayne County Metropolitan International Airport, MI** - Development of as-built drawing development for the WCAA's North Terminal redevelopment. This project will replace three terminal buildings with one new, expandable terminal building, concourses and related facilities.

**MDOT I-94 MITS Upgrade, MI** - Design for the installation of intelligent transportation system (ITS) field devices along I-94 for a total of approximately 36 miles of freeway. ITS field devices included changeable message signs, cameras, vehicle detection, and communications to MITSC backbone.

**Conceptual Signage Modifications and Preparation of Construction Documentation/North Terminal Redevelopment, Detroit Wayne County Metropolitan International Airport, MI** - Inventory of existing signs, sign messages, sign supports and their conditions to identify modifications required for the signs and sign supports associated with the proposed North Terminal redevelopment. The project also included preparation of the proposed conceptual signage plans and the associated bid documents.

# Edward Strada, PE

## Road Design Task/Project Manager

**French Road and Lynch Road Intersection Safety Improvements, Detroit, MI** – Design for safety enhancements at French Road and Lynch Road.

**M-59, from Crooks Road to Ryan Road, Oakland and Macomb Counties, MI** - Design for the reconstruction and widening of a four-lane rural freeway. The widening includes adding a third lane in each direction within the median, with dual-faced median guardrail and open median ditching. The project also includes the rehabilitation of eight bridges within the project corridor with vertical clearance modifications at two of the bridges, development of maintaining traffic plans, an air-noise analysis, a capacity analysis, a crash analysis, wetland impact evaluation and possible mitigation, and coordination with other MDOT and local projects in the area.

**Michigan Stadium Expansion, The University of Michigan, Ann Arbor, MI** – Design for the expansion of the University of Michigan football stadium. The proposed expansion included the addition of approximately 83 suites and 3,200 club seats along the east and west sidelines as well as new press facilities, and spectator amenities such as improved restroom and concession facilities.

**M-10 Lodge Freeway (I-94 to M-39) Southfield and Detroit, MI** – Design for the reconstruction of 4.5 miles and the rehabilitation of 7.3 miles of six-lane urban freeway, reconstruction of the existing raised shoulders to flush shoulders, ramp reconstruction at the M-10/M-102 and M-10/M-39 interchanges, vertical clearance corrections, pavement markings and lighting.

**I-94 Reconstruction VE Study, I-96 to Conner Ave, Detroit, MI** - Two-week VE study for \$960 million in proposed improvements for the reconstruction of a 6.7-mile section of existing I-94 in Detroit. The project consisted of the reconstruction and widening of the existing six-lane freeway with an eight-lane section with continuous service drives, reconstruction of two major freeway-to-freeway system interchanges at I-94 and M-10, and I-94 and I-75, and modifications to several other partial and full-service interchanges with local arterial streets.

**I-96 (from Roosevelt to Warren), Detroit, MI** - Design for the reconstruction of 0.93 miles of I-96, from Roosevelt to Warren in the City of Detroit, including the total reconstruction of the interchange at I-94. This urban freeway project included the replacement of the existing eight-lane pavement and raised shoulders with a new eight-lane pavement and flush shoulders, superelevation and vertical clearance modifications, storm sewer replacement and new permanent freeway signing.

**Ambassador Gateway Contract 4, I-75 from Clark Street to Rosa Parks and I-96 from I-75 to Warren Avenue, Detroit, MI** – Design of 2.5 miles of concrete freeway reconstruction and new concrete construction along I-75 and I-96 from Clark Street to Warren Avenue. The project involved the construction of new bridges and retaining walls, including a cable-stayed pedestrian bridge, along with new direct-access ramps for both cars and trucks linking the freeways with the Ambassador Bridge. Contract 4 also included the reconstruction of the I-75/I-96 interchange and I-96 north to Warren Avenue.

# Eric M. Kipp, PE

## Project Engineer

Eric M. Kipp, PE has 13 years with SDA for a total of 15 years of experience in the industry. Mr. Kipp provides innovative approaches to complex projects. As the Project Engineer, Eric supports the project and Project Manager by performing design evaluations and providing recommendations to development and design that improve the quality of service. Through technical knowledge and excellent communication, he will ensure his workmanship is in conformance with the project's scope of work.

Mr. Kipp is responsible for design, development, implementation, and analysis of technical plans. He performs engineering design evaluation and recommends alterations to development and design to improve quality of services and/or procedures. Eric has gained experience in construction contract administration and inspection of highway construction projects such as roadway rehabilitation, bridge maintenance, storm sewer construction and inspection, and water main construction. He has served as a design engineer for roads, storm sewer and drainage, and roadway geometrics. Kipp is familiar with a variety of field concepts, practices, and procedures. Other areas of work have included ADA ramp design, traffic engineering, and preliminary engineering. He has blended a balanced background in both the design and construction areas of highway projects.

### RELEVANT EXPERIENCE

**Middle Belt Rd Rehabilitation, 7 Mile Rd to 8 Mile Rd, Livonia, MI** – Project Engineer – Cold milling and HMA resurfacing of approximately 1 mile of 5-lane urban roadway, including concrete and HMA pavement repairs, curb and gutter repairs, ADA ramp replacements, and pavement markings. (2009, 2012)

**Avon Road Rehabilitation, Rochester Hills, MI** – Project Engineer for an aggressive RCOE project to rehabilitate Avon Rd from Adams Rd to Livernois Rd. Project included cold milling and crushing & reshaping of existing HMA pavement, resurfacing with HMA, shoulder paving, intersection improvements, extending turn lanes, ditching, and storm sewer improvement, as well as expanding non-motorized pathways and ADA ramp replacements. (2012-2013)

**Nichols Rd Rehabilitation, Willard Rd to Birch Run Rd, Saginaw County, MI** – Project Engineer – Responsible for design of rehabilitation of 2 miles of rural 2-lane roadway by pulverization & HMA resurfacing. Design includes lane widening, superelevation improvements, ditch cleanout, railroad crossing coordination, signing upgrades & pavement markings. (2010-present)

**Marion Rd Rehabilitation, Meridian Rd to Fenmore Rd, Saginaw County, MI** – Project Engineer – Responsible for design of rehabilitation of 1 mile of rural 2-lane roadway by pulverization & HMA resurfacing. Design includes lane widening, ditch cleanout, signing upgrades & pavement markings. (2010-2011)

**Sloan Rd/Seymour Rd Rehabilitation, Sheridan Rd to Bell Rd, Saginaw County, MI** – Project Engineer – Responsible for design of rehabilitation of 2.6 miles of rural 2-lane roadway by pulverization & HMA resurfacing. Design includes lane widening, superelevation improvements, ditch cleanout, guardrail design, railroad crossing coordination, signing

### EDUCATION

BS Civil Engineering, 1998, Lawrence Technological University  
MS Civil Engineering, 2001, Wayne State University

### REGISTRATION

Professional Engineer, Michigan, 6201050419, 2003

### SPECIALIZED TRAINING

Power GeoPak Webinars (2012)  
ADA Design Seminars (2008, 2010)  
Pedestrian Accessibility Seminar (2008)  
Context Sensitive Solutions Training (2008)  
Roundabout Design Training Seminars (2000, 2005)  
GeoPak Training & Update Seminars (2003, 2004, 2006, 2009)  
AutoCAD Civil 3D 2011 Training (2011)  
Warm-Mix Asphalt (WMA) Webinar (2011)  
Innovative Highway Solutions Webinar (2011)  
Engineered Rainwater Collection Webinar (2011)  
Intersection Accessibility Webinar (2010)  
MCPA Concrete Paving Seminars (2006, 2010)  
Slope & Retaining Wall Design Webinar (2010)  
HMA Pavement Maintenance Seminar (2008)  
Pavement Life Cycle Cost Analysis Webinar (2008)  
Reading & Understanding Soil Reports Webinar (2008)  
Safe Routes To School Webinar (2007)  
On-Site Circulation & Access Design Webinar (2007)  
Signalized Intersection Safety Webinar (2006)  
Traffic Incident Management Webinar (2006)

# Eric M. Kipp, PE

## Project Engineer

upgrades & pavement markings. (2010-2011)

**MDOT Metro Region Road Scoping, Macomb County, MI** – Project Engineer - Responsible for preparing Preliminary and Final Scoping Packages for the rehabilitation of M-59 (Hall Rd) from M-53 to Romeo Plank in the Cities of Sterling Heights & Utica and Clinton Twp, Macomb Twp & Shelby Twp; I-696 (Reuther Fwy) from Dequindre Rd to E of Mound Rd in the Cities of Warren & Center Line; and M-53 (Van Dyke Ave), from Helen St to 13 Mile Rd in the Cities of Warren & Center Line. Other work included performing field reviews of existing conditions; researching as-built plans; utility coordination; performing 3R/4R geometric reviews & drainage design reviews; developing preliminary cost estimates, maintaining traffic concepts, and crash analyses; and soliciting communications with affected local agencies and utility companies. (2011)

**US-131 Overpass Bridges Reconstruction, Kent County, MI** - Project Engineer – Responsible for design of approaches to 3 bridges going over US-131. Design includes transitioning approaches from widened bridge decks to existing local streets, detail grades, ADA ramps, and realignment of a loop ramp from SB US-131 to Burton St. (2009-2011)

**Silver Bell Road over GTW Railroad Bridge Reconstruction, Orion Twp, MI** – Project Engineer - Responsible for guardrail design at reconstructed grade separation of a 4 lane roadway. (2011)

**I-94BL from CSX Railroad to Ravenswood Rd, Marysville, MI** – Project Engineer – Evaluation and replacement of the storm drainage system to alleviate long-term drainage and flooding issues for homes along the St. Clair River. Other improvements include roadway reconstruction, geometric improvements, and coordination with the City to replace water main. Extensive utility coordination was required to design the proposed storm sewer system to avoid the existing DTE electric conduit duct banks and two 8" high-pressure gas mains. Project to be constructed in 2011. (2009-2010)

**Local Street Realignment under the Blue Water Bridge, Port Huron, MI** - Lead Project Engineer – Realignment of six City of Port Huron local streets under the Blue Water Bridge for security improvements. Included geometric improvements, pedestrian pathways, ADA ramps, drainage improvements, and extensive utility coordination. Also included watermain & some sanitary sewer replacement & re-routing. (2008-2009)

**M-3 (Gratiot Ave) Rehabilitation, Sunnyview St to Sandpiper St, Mt Clemens & Clinton Twp, MI** – Project Engineer responsible for design of rehabilitation (cold milling, concrete patching, and HMA overlay) of 4.1 miles of urban trunkline for MDOT. The project involved reconstruction of Metro Pkwy intersection, geometric improvements at intersections, signing and guardrail upgrades, reconstruction of two railroad crossings, designing approaches for and coordinating with reconstruction of two bridges (B01 & B02) over the Clinton River, and upgrading nearly 300 sidewalk ramps to current ADA standards. Extensive maintaining traffic plans were also required for stage construction at the Metro Pkwy intersection, NB & SB M-3 bridges over the Clinton River, and other partial-reconstruction locations along the corridor.

# Eric M. Kipp, PE

## Project Engineer

Also involved in implementing access management improvements throughout the corridor by closing or consolidating redundant driveways. (2005 – 2010)

**Van Horn Resurfacing, Fort St to W. Jefferson Ave, Trenton, MI** – Project Engineer – Resurfacing of approximately 0.8 miles of 4-lane boulevard and roadway near the Chrysler Trenton Engine Plant. Included minor geometric improvements, minor drainage improvements, pavement marking plans, and signing upgrades. Required extensive coordination with railroad companies for work adjacent to 3 railroad crossings within the project limits. (2008-2009)

**Southfield Rd Boulevard Reconstruction, 11 Mile Rd to N of 12 Mile Rd, Lathrup Village & Southfield, MI** – Project Engineer responsible for designing the removal of an existing 5-lane urban arterial roadway with an open-ditch drainage system and construction of a 4-lane boulevard section with median left-turn crossovers with storm sewers and catch basins for ROCOC. The project also required close coordination with Lathrup Village’s DDA to mitigate on-street parking deficiencies, as well as a watermain upgrade project north of 12 Mile Rd. An extensive traffic-and-safety analysis was performed for placement of median left-turn crossovers and storage lengths of turn lanes. (2004 – present)

**Paint Creek Trail Rehabilitation, Oakland County, MI** – Project Engineer – Responsible for gathering field data and assisting with pickup survey on aggregate reconstruction of 8.5 mile long non-motorized pathway in Lake Orion, Orion Twp, Oakland Twp, Rochester Hills, and Rochester. (2003-2004)

**M-53 (Van Dyke Ave) at 7 Mile Rd & M-5 (Grand River Ave) at Lahser Rd Intersection Safety Improvements, Detroit** – Project Engineer responsible for designing intersection safety improvements such as increasing radii, adding turn lanes, and upgrading 16 sidewalk ramps to current ADA standards at two major signalized intersections in Detroit. Projects also involved traffic signal upgrades and extensive utility coordination to avoid multiple utilities. (2004-2008)

**Stephenson Highway Rehabilitation, 14 Mile Rd to I-75, Troy, MI** - Project Engineer responsible for evaluating pavement distresses and failures in the field using a GPS system to gather data. The GPS system was used to locate and classify points along the four-lane divided highway in the field and then the data was entered into a database and sorted by distress type and severity. This information was then used to develop various pavement rehabilitation alternatives, from which the client made a selection to proceed with the pavement rehabilitation design plans. The project also included minor drainage improvements, geometric improvements, sign replacement, and designing approximately 40 sidewalk ramps to current ADA standards. (2002-2003, 2007)

# Jenean Robbins, PE

## Construction Engineering Task/Project Manager

Jenean Robbins has 13 years of construction engineering services experience working on Michigan Department of Transportation projects including numerous Federal-aid projects. She has performed project administration, record keeping and construction inspection duties on many large scale road and bridge construction projects. She is well versed in MDOT construction procedures, specifications, manuals and guides.

### RELEVANT EXPERIENCE

**Project Engineer and QA/QC** – Jenean has served as the Project Engineer and QA/QC for numerous as-needed contracts and for full construction engineering on numerous MDOT road, bridge and intelligent transportation system (ITS) projects. Responsibilities include: general project administration, supervision of project team staff overseeing construction inspection, project record keeping and materials testing, , primary point of contact with client, contractor and project stakeholders, reviewing contract documents, reviewing contractor submittals, facilitating and participating in project meetings, resolving project issues, mitigating and resolving contractor claims, and ensuring that the project is constructed on time, within budget, and according to specifications.

**Full Construction Engineering M-97 (Groesbeck Highway) Resurfacing** - Project Engineer - 3.55 miles of hot mix asphalt cold milling and resurfacing, pavement removal and repair, concrete curb, gutter, sidewalk and ramps, drainage, watermain, traffic signal, signing, and pavement markings on M-97 in Macomb County.

**Full Construction Engineering M-10/I-75 Fiber Optic Upgrades** – Project Engineer - Installation of two CCTV cameras, power services, and a fiber-optic communications network connecting Hub 6, MDOT Metro Region office, and the interconnection of existing devices along M-10 and fiber-optic cable repairs and the migration from the CCTV fiber cable to the West Data fiber cable along I-75 in Wayne and Oakland Counties.

**Full Construction Engineering Michigan ITS Towers** – Project Engineer - Replacement of three MITS towers: Hub 9 at I-94 and Greenfield, Hub 10 at I-96 and Greenfield, and Node 11 at I-96/M-14 and I-275 Interchange in Wayne County.

**Full Construction Engineering Dynamic Message Signs and Microwave Vehicle Detection Systems** - Project Engineer - DMS removal, installation, and upgrades at seventeen DMS locations, and nine MVDS locations on I-75, I-275, I-696, and M-10 in Macomb, Oakland, and Wayne Counties.

**2013 As-Needed Inspection, Testing and Construction Assistance MDOT Brighton TSC** – Project Manager - Projects staffed included I-96 at Latson Road interchange reconstruction, various locations permanent non-freeway signing, various locations special permanent pavement markings, and as-needed office technician assistance.

**2012 As-Needed Inspection, Testing and Construction Assistance MDOT Macomb TSC** – Project Manager - Projects staffed included I-696 Service Drive resurfacing, M-3 and M-97

### EDUCATION

BS, Civil Engineering, 2003  
Wayne State University  
Detroit, MI

MS, Civil Engineering, 2006  
(Construction Management)  
Wayne State University  
Detroit, MI

### PROFESSIONAL LICENSURE

Professional Engineer, Michigan  
Professional Engineer, North Carolina

### PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers  
(ASCE)

### SPECIALIZED TRAINING

MDEQ Soil Erosion and Sediment  
Control Comprehensive  
MDEQ Storm Water Management -  
Construction Site  
MDOT Office Technician Certification  
NHI Safety Inspection of In-Service  
Bridges  
NHI HMA Paving Inspection  
NHI Pipe Installation  
APAM 2014 Local Roads Asphalt  
Workshop  
MWEA Fundamentals of Collection  
Systems  
FieldManager Users Group Meeting  
ADA Compliance Training  
MIOSHA Training  
NHI Construction Safety and PPE  
ABC/Structural Slide and Move  
Workshop  
MDOT ACEC Partnering Workshop

# Jenean Robbins, PE

## Construction Engineering Task/Project Manager

non-freeway signing, I-94 crack treatment and permanent pavement markings, and M-29 microsurfacing.

**Full Construction Engineering I-696 Bridges Rehabilitation** – Assistant Project Engineer - Deck replacement and widening, substructure patching, concrete surface coating, deep concrete overlay, joint replacement, backwall repair, railing replacement, slope paving repair, and approaches on nine structures over I-696 in Macomb County.

**Full Construction Engineering I-696 Permanent Signing** – Assistant Project Engineer - 8.23 miles of freeway signing upgrades on I-696 and non-freeway signing upgrades along eastbound and westbound I-696 Service Drives in Macomb County.

**Full Construction Engineering US-12 Sidewalks and Driveways** - Project Engineer - 0.72 mile of concrete sidewalk and sidewalk ramp installation and replacement, HAWK pedestrian signal installation, concrete and bituminous driveway replacement, and concrete curb and gutter replacement on US-12 BR in Washtenaw County.

**2011 As-Needed Inspection, Testing and Construction Assistance MDOT Brighton TSC** – Project Manager - Projects staffed included various locations non-freeway permanent signing and various locations dynamic message signs and microwave vehicle detection system installations.

**2010 As-Needed Inspection, Testing and Construction Assistance MDOT Oakland TSC** – Project Manager - Projects staffed included M-24 signals and sidewalk upgrades, M-24 HMA milling and resurfacing, and I-75 concrete pavement repairs and HMA milling and resurfacing.

**2010 As-Needed Inspection, Testing and Construction Assistance for MDOT US-24 (Telegraph Road) Overlay** – Project Engineer - 3.34 miles of concrete patching and hot mix asphalt overlay, intermittent curb, gutter, and valley gutter replacement, storm sewer repairs, guardrail replacement, and signing modernization on US-24 in Oakland and Wayne Counties.

**2010 As-Needed Inspection, Testing and Construction Assistance for MDOT US-24 (Telegraph Road) Reconstruct** - Project Engineer - 7.06 miles of concrete inlay reconstruction, open graded drainage course, cold milling hot mix asphalt, pavement repairs, curb and gutter, drainage, sign and signal replacement and repairs, ADA ramp improvements, and bridge rehabilitation on US-24 in Oakland County.

**Full Construction Engineering I-94 Resurfacing** – Assistant Project Engineer - 5.54 miles of hot mix asphalt cold milling, resurfacing, joint and pavement repairs on I-94 eastbound in Wayne County.

**Full Construction Engineering M-3 (Gratiot Avenue) Overlay** - Project Engineer - 2.59 miles of concrete cold milling, pavement repair, hot mix asphalt overlay, curb and gutter

# Jenean Robbins, PE

## Construction Engineering Task/Project Manager



repair, and sidewalk ramp replacement on M-3 in Macomb County.

**As-Needed Inspection, Testing, and Construction Assistance for MDOT Ambassador Bridge Gateway Project** – Staff Engineer - 2.66 miles of concrete road reconstruction, 3.00 miles of retaining wall construction and 24 structure rehabilitations on I-75 and I-96 in the city of Detroit, Wayne County.



# John E. Becht

## Contract Administrator

Mr. Becht has more than 28 years of experience in commercial and construction engineering. In his role as Contract Administrator, John is responsible for managing public and private construction engineering projects. This involves the coordination of all aspects of a project including client relations and working with a project team to meet the requirements of the scope of work.

Currently Mr. Becht is the construction operations supervisor for projects within the cities of Monroe, Rochester Hills, Troy and Livonia. John has worked on numerous public works and private development projects on behalf of our municipal clients. As a Contract Administrator of the construction staff, John is responsible for supervising on-site construction technicians, reviewing construction daily reports, responding to resident complaints, hosting construction progress meetings, reviewing project pay applications and quantities with the contractors, negotiating contractor construction claims, and assisting in project close-out and acceptance reports.

### RELEVANT EXPERIENCE

**Macomb Street Bridge Rehabilitation, Monroe, MI** – Resident Engineer for the replacement of the entire bridge superstructure including deck, beams, sidewalk, and railings as well as the rehabilitation of portions of the existing substructure. The project also includes the replacement of 12" diameter water main and the reconstruction of the adjacent approach pavement on both sides of the structure. SDA provided complete construction engineering services including construction inspection, contract administration, material testing and construction survey.

**Avon – Livernois Aesthetic Improvements, Rochester Hills, MI** – Resident Engineer for the aesthetic improvements at the intersection of Avon and Livernois Roads. The work involved a pedestrian bridge removal, retaining wall construction, concrete curb and gutter replacement, ADA ramp installation, concrete non-motorized pathway, landscaping, and restoration. SDA provided complete construction engineering services including construction inspection, contract administration, material testing QA and construction survey. (MDOT Local Agency Project)

**Stephenson Highway, 14 Mile to I-75, Troy, MI** – Lead Construction Inspector for construction of this pavement rehabilitation project. John was responsible for full construction engineering of 1.75 miles of rehabilitation of Stephenson Highway from 14 Mile to I-75. The project included concrete curb repair and placement; installation of storm sewer to provide for drainage; relocation and rehabilitation of crossover lanes; pavement and joint repair; replacement of sections of roadway; bituminous overlay; and geometric improvements. SDA provided complete construction engineering services including construction inspection, contract administration, material testing and construction survey QA. (MDOT Local Agency Project)

**Schoolcraft Road Rehabilitation, Livonia, MI** – Project Engineer for 0.31 miles of hot mix asphalt resurfacing cold milling, concrete road repairs, and storm drainage improvements.

### EDUCATION

Bachelor of Science in Construction Engineering, 1984  
Lawrence Technological University

### PROFESSIONAL AFFILIATIONS

American Public Works Association (APWA)  
Southern Oakland County Municipal Engineers (SOCME)  
Michigan Water Environment Association (MWEA)

### SPECIALIZED TRAINING

APWA Certified Public Infrastructure Inspector

Compliance Solutions – Certificate No. 754792956, Certified 40 hours  
HAZWOPER in accordance with 29 CFR 1910.120(e), 3/20/09

MDEQ Certificate No. C-10-0046 for Part 91, Soil Erosion and Sedimentation Control, exp. 2/16/15

MDEQ Certificate No. C-04089 A-1j  
Stormwater Management – Construction Site, exp. 2/16/15

MDOT Field Manager Certification  
Bituminous Inspection  
Concrete Inspection  
Bridge construction and Rehabilitation  
Office Technician

Michigan State University - Pavement Design, Pavement Rehabilitation

CAMTEC – OSHA-MIOSHA 10 Hour Construction Safety Course

Excavation Safety – Competent Person Training

# John E. Becht

## Contract Administrator



Responsible to review daily construction reports, verify quantities, process pay certifications, negotiate change orders and contractor claims, and maintain contract documentation. (MDOT Local Agency Project)

Certified Confined Space Entrant,  
Attendant, and Rescue

**Newburgh Road Rehabilitation, Livonia, MI** - Project Engineer for 0.90 miles of hot mix asphalt resurfacing cold milling, concrete road repairs, and storm drainage improvements. Responsible to review daily construction reports, verify quantities, process pay certifications, negotiate change orders and contractor claims, and maintain contract documentation. (MDOT Local Agency Project)

**Inkster 2007 Road Repair Program, Inkster, MI** – Contract Administrator for over 11 miles of hot mix asphalt resurfacing cold milling, concrete road repairs, and joint repairs on 38 streets throughout the City. Responsible to review daily construction reports, verify quantities, process pay certifications, negotiate change orders and contractor claims, and maintain contract documentation.

**Livonia 2005 - 2007 Asphalt Paving Road Program, Livonia, MI** – Contract Administrator for \$4,800,000.00 of asphalt roadway rehabilitation and reconstruction as part of their Asphalt Paving Program over 3 years. Responsibilities included reviewing daily construction reports, verified quantities against design requirements, processed pay certifications, negotiated change orders and contractor claims, and maintained contract documentation. Responsible to coordinate with contractors to solve problems and implement ideas to facilitate project completion. Implemented traffic control plans.

**West Bloomfield Township Pedestrian Safety Path Program** – Contract Administrator for the construction of new pathway and associated related work including ADA ramps as well as rehabilitation of existing pathways at multiple locations throughout the Township. Responsibilities included reviewing daily construction reports, verified quantities against design requirements, processed pay certifications, negotiated change orders and contractor claims, and maintained contract documentation.

**Lake Crest / Belle Harbor Subdivision Street Rehabilitation, Van Buren Township, Michigan** - Contract Administrator for 2.3 miles of street rehabilitation within the Lake Crest/Belle Harbor subdivision in Van Buren Township. Responsibilities included reviewing daily construction reports, verified quantities against design requirements, processed pay certifications, negotiated change orders and contractor claims, and maintained contract documentation.

**Heide, Thunderbird, Oliver Water Main Replacement, Troy, MI** – Resident Project Engineer for water main replacement with 5700 feet of 16" ductile iron pipe in poly wrap located in an industrial subdivision. Access to the businesses was maintained during the water main and road replacement. Responsibilities included reviewing daily construction reports, verified quantities against design requirements, processed pay certifications, negotiated change orders and contractor claims, and maintained contract documentation.

# John E. Becht

## Contract Administrator

**MDOT Taylor TSC Permits Department** – Construction Engineer for As-Needed Services working primarily in the Permits Department at the Taylor TSC. Services included reviewing permit applications, checking sites for permit compliance, and processing completed permits for release.

**Oakland Macomb Interceptor Drain (OMID) Repair Program, Macomb County, MI** – Engineer overseeing submittals, RFIs, certified payrolls, and reviewing daily construction reports. Project consists of the construction of five Control Structures on the existing 108" and 144" interceptor to allow for the backup of flows for rehabilitation of the interceptor. Structures ranged in size from 16ft diameter to 50 ft diameter and from 44 ft to 85 ft deep. Project also included the design of stop logs as well as site work.

**John Daly Bridge Reconstruction, Inkster, MI** - Construction Engineer responsible for the reconstruction of a single span concrete bridge over the Rouge River including improvements to the water main and storm sewer. Responsible for on site inspection and testing, contract documentation, processed pay applications, negotiated change orders, and completed project close out. (MDOT Local Agency Project)

**Garden City Paving Improvements, Garden City, MI** – Construction Engineer responsible for construction engineering of 16,000 sy of concrete pavement and related utilities. Responsible for over seeing inspection, contract documentation, processed pay certifications and negotiated change orders.

**Longsdorf Avenue Beautification, Riverview, MI** – Construction Engineer responsible for the installation of decorative concrete sidewalk, landscaping and related features. Responsible for over seeing inspection, contract documentation, processed pay certifications and negotiated change orders. (MDOT Enhancement Project).

**Northline Road Reconstruction, Taylor, MI** - Construction Technician responsible for construction engineering of two miles of 5-lane concrete pavement widening and replacement and utility relocation. Responsible for construction documentation, coordinating site testing, and quality control.

**Pardee Road Reconstruction, Taylor, MI** - Construction Technician responsible for construction engineering of ½ mile of 5-lane concrete pavement replacement. Responsible for construction documentation, coordinating site testing, and quality control.

**Redford Township CSO Demonstration Basin, Wayne County, MI** – Construction Engineer responsible for the on site engineering services for the 2 mg basin project. The Project consisted of constructing a 60 feet diameter wet well with six variable speed pumps, 60" influent pipe, 24" force main, two 1 mg retention basins, removal of eight outfalls, and associated piping. Emergency generator installation and inspection for facility support. Inspected the electrical system installation with generator to include transfer switch and controls.

# Michael F. H. DeDecker, PS

## Vice President / Survey Task/Project Manager

Michael F. H. DeDecker, PS has 20 years of experience in the industry. In his role as a Survey Project Manager, Mike is responsible for organizing the highly complex activities for the development and implementation of surveying and mapping projects. Project management involves the coordination of all aspects of a project including client relations and working with a project team to meet the requirements of the scope of work. DeDecker provides surveying expertise for the successful support and continuous improvement of survey and mapping projects to provide quality in workmanship and value for project budgets.

As Project Manager, DeDecker supervises project surveyors, survey draftsmen, and field crews. He performs project quality control, project research, boundary calculations, survey computations and field data analysis. Mike is experienced in various aspects of surveying including providing boundary and topographical surveys and overseeing large construction layout projects. He is proficient in preparing ALTA/ACSM Land Title Surveys and has particular experience in surveying for municipal infrastructure projects and industrial surveying applications.

### RELEVANT EXPERIENCE

**Marshbank Park, West Bloomfield, MI** – Project Manager - The park is comprised of more than 101 acres of land, has many existing improvements, abuts Cass Lake, and contains acres of wetlands and designated woodlands. The scope of work involved performing a topographical and boundary survey of the park to be used for the design of improvements including trails, boardwalks, playgrounds, parking lots, roads, restrooms, and maintenance areas. The base map for the topographical survey was prepared using aerial mapping procedures. The base map was supplemented by conventional on the ground measurements for elevations, underground utilities, and site features to increase the accuracy of the survey. Wetland and woodland outlines were flagged by others prior to the survey. Wetlands were mapped based upon a combination of the field flags and the wetland report sketch. Woodlands were also mapped based upon a combination of the field flags and the woodland report sketch. The 100-year floodplain is shown on the survey, as well as the 25' environmental setback line.

**Northwest Activities Center, Detroit, MI** - Project Manager responsible for directing survey field crew to provide topographical survey needed for design of improvements for City of Detroit Parks and Recreation Department for expanded site work.

**Focus Hope, Detroit, MI** - Crew Chief responsible for topographical and boundary survey.

**Birmingham Public Schools, Various Locations, MI** – Project Manager for construction layout for Barton Malow for various school projects.

**Groves High School, Birmingham Public Schools** – Project Manager for construction layout for McCarthy Construction Co. for building expansion.

**Ernest W. Seaholm High School, Birmingham Public Schools** – Project Manager for construction layout for Nelson Iron Works as built anchor bolts for columns.

### EDUCATION

BS, Surveying Engineering, 1994, Ferris State University

### REGISTRATION

Professional Surveyor, Michigan, 44282, 1998

Professional Surveyor, Alabama, 30341-S, 2009

Michigan Residential Builder License

### PROFESSIONAL AFFILIATIONS

Michigan Society of Professional Surveyors, Southeast Chapter (President, 2005; Chapter Representative to State Board 2006)

American Congress on Surveying and Mapping (ACSM)

### CERTIFICATIONS / SPECIALIZED TRAINING

Federal Aviation Administration (FAA)

Integrated Distance Learning Environment (FAA IDLE) Level 3 Training for FAA Advisory Circulars:

AC 150/5300-16A

AC 150/5300-17B

AC 150/5300-18B

Certificate No. FAAIDLE20120224-220

Courses Civil Engineering, 1995, Wayne State University

Courses, 1992, Michigan State University

CAiCE Visual Survey

Confined Space Entry trained

Drug and Alcohol Testing, Reasonable

Suspicion Training for Supervisors - United

States Department of Transportation Federal

Transit Administration

### PUBLICATIONS

DeDecker, Michael F.H., "Industrial Pursuits,"

POB Magazine, December 2011, Cover Story,

p. 12.

# Michael F. H. DeDecker, PS

## Vice President / Survey Task/Project Manager

**Pierce Elementary School, Birmingham Public Schools** – Project Manager for as built for TMP Associates, Inc.

**Detroit Public Schools, Detroit, MI** - Project Manager for detailed topographical and boundary surveys of various existing and proposed school sites for the DPS Program Manager Team.

**Rochester High School, Rochester, MI with Etkin and Etkin - Rewold JV** - Project Manager for survey control and construction layout for the building and site renovations of the 50 acre existing high school.

**Rochester College, Rochester Hills, MI** - Project Manager for surveying services including layout.

**New Plymouth Canton High School, Canton, MI** - Project Manager in charge of completing a boundary and topographical survey for this 284-acre site. Mapping combined aerial mapping and conventional surveying measurements to add detail and accuracy. Also oversaw surveying layout for the construction phase of the project.

**Oxford Schools, Various Locations** – Project Manager for surveying for various projects of additions and renovations in the district.

**Oakland Schools Office and Conference Center, Waterford, MI** – Project Manager for surveying responsible for a new 140,000 square foot headquarters on a 25 acre site.

**Historical Village, Clinton Township, MI** – Project Manager for various projects including topographical and construction layout surveys.

**Detroit Historical Museum, Detroit, MI** – Project Manager for topographical survey for site improvements.

**Cranbrook Education Community, Bloomfield Hills, MI** – Project Manager responsible for various surveying projects including boundary, topographical, legal descriptions, and construction layout surveys for a variety of projects for the Art Academy, Jonah Fountain, Maintenance Yard, Natatorium, Parking Lots, Thompson Oval (track), the Institute, the Athletic Camp, and Brookside and Europa areas.

**Lower Woodward Cross Streets Improvement Project, Detroit, MI**- Survey Project Manager for improvements to sidewalk, Curb area-way, lighting system for portions of Adams, Park, Witherell, Griswold, Library, Farmer, Grand River, John R/Clifford, State Street and 13 alleys in downtown Detroit. The project included the design of 147 ADA ramps to MDOT and the CED special provisions.

**ADA Ramps Investigation, Detroit, MI** - Survey Project Manager for survey of 197 sidewalk ramps in the city of Detroit. The project covers segments of Broadway, Monroe, Woodward,

DeDecker, Michael F.H., "The Need for Speed, Surveyors play a key role in the APBA Gold Cup races in Detroit," POB Magazine, October 2009, p. 30.

DeDecker, Michael F.H., "In Review: VisionPlus by Geo-Plus," POB Magazine, February, 2010, p. 40.

# Michael F. H. DeDecker, PS

## Vice President / Survey Task/Project Manager

and Washington in the Downtown area.

**Meadowbrook Commons Senior Center – Detention Basin Rehabilitation, City of Novi, MI**  
– Survey Project Manager – Responsible for the topographic survey used for the design of improvements.

**Oakland County Water Resources Commissioner As-needed Surveying Services, Oakland County, MI** - Survey Project Manager – Provided as-needed staking and general surveying services on a variety of projects.

**Donohue Drain, Oakland County, MI** - Survey Project Manager – Provided as-needed staking for the Oakland County Water Resources Commissioner for culvert replacements and stream-bank stabilization.

**Jamian Drain Stream Improvement, West Bloomfield Twp., MI** - Survey Project Manager – Performed topographical survey for stream bank stabilization, restoration of sediment basins, and reshaping of an existing meandering drain through a residential area.

**Oakland Macomb Interceptor Drain Survey, Macomb County, MI** - Survey Project Manager – Portions of the sewer exceed 100 ft in depth, with the only above-ground evidence of the improvement consisting of access manholes spaced over 2,000 ft apart. Based upon field-locating the access manholes and mathematically computing the tunnel locations according to the as-built plans, SDA was able to plot the location of the tunnel and overlay it on a digital orthophoto. Areas of detailed topographical surveying were needed to complete engineering design for proposed access shafts and stop-gates. The project also involved retracing the existing easements. Obtaining pipe invert elevations required confined space procedures utilizing supplied air due to high hydrogen sulfide readings.

**Teggerdine Road Low Pressure Sanitary Sewer, Charter Township of White Lake, MI** – Survey Project Manager for the topographical survey and construction staking for 3,000 feet of low pressure sewer to serve an existing subdivision and adjacent commercial properties.

**South Boulevard Water Main and Sanitary Sewer Extension, Rochester Hills, MI** - Project Manager overseeing topographical and ROW survey along South Boulevard and along M-59. Provided information to the City for the design of improvements. Project included mapping, right-of-way determination and control for almost one mile of roadway.

**52<sup>nd</sup> - 3<sup>rd</sup> District Courthouse, Rochester Hills, MI** - Project Manager for Construction Layout.

**Troy Beaumont Pedestrian Bridge – Troy, MI** - Project Manager - Verified anchor bolt as-built and provided assistance in erecting steel prior to installation of pre-fabricated bridge structure.

# Craig Bagby, CST III

## Senior Project Surveyor

Craig Bagby has 23 years with SDA with 42 years of experience in the industry. Craig has the ability to handle the level of complexity needed for the given job. As the Senior Project Surveyor, his combination of knowledge, skills and training qualifies him to carryout the duties of surveys and investigation of land surfaces for project precise measurements and locations of lines, angles, points, areas, and elevations. Craig is proficient in performing surveying measurements using GPS, total stations, and automatic and electronic levels, and is familiar with MDOT procedures for measurements and documentation. He is experienced in traffic control and other safety procedures. He has experience in topographical surveys and construction layout for public utilities in road rights of way and all aspects of boundary surveys including ALTA surveys, subdivision plats, condominium developments, the public land survey system corners, public act 132 surveys, and pulic act 74 land corner recordation certificates. He is familiar with using and recovering NGS control. He has performed topographic, boundary, structure, photogrammetric control, road design, construction layout, hydrographic, and right-of-way surveys. He has mapped surface features, drainage, and underground utilties, and is familiar with terminology for bridge structures and hydrographic surveys and vertical datums. He has performed layout including slope staking, paving, buildings, and underground utilties.

### RELEVANT EXPERIENCE

**LaFarge – Detroit, MI** – Senior Project Surveyor - Surveying services for a new cement storage facility located on a re-developed contaminated COKE Manufacturing Facility located on the Detroit River. Tyvek suits were required to be worn on the site. Horizontal and vertical control was established utilizing traditional survey methods and equipment.

**BASF Wyandotte – Wyandotte, MI** – Senior Project Surveyor - As-built survey of column base plates for Midwest Steel. Included approximately 400 hundred base plates in the production building, office building, and pipe rack.

**BMW – Spartanburg, SC** – Senior Project Surveyor - Construction layout for paint shop in assembly plant for Midwest Steel. Provided precise layout for over 300 columns related to the paint shop line.

**Bodine Aluminum – Jackson TN** – Senior Project Surveyor - Performed as-built measurements for anchor bolts and precise crane rail survey.

**GETRAG Tequila Transmission Plant** – Tipton, IN – Senior Project Surveyor - Provided precise as-built measurements for over 500 sets of anchor bolts and established bottom of base plate elevations in the field.

**GM Anchor Bolts – Delta Twp., MI** – Senior Project Surveyor - Provided precise as-built measurements for anchor bolts and established bottom of base plate elevations in the field for this new assembly plant. Provided assistance in erecting steel for checking columns for plumb. Provided precise layout and as-built survey for crane rails.

### EDUCATION

Michigan Technological University  
Macomb Community College

### PROFESSIONAL AFFILIATIONS

Michigan Society of Professional Surveyors

### SPECIALIZED TRAINING

40-hour OSHA Training course for Hazardous Waste Operations and Emergency Response Certificate No. 40059

8-hour OSHA Refresher Training Course

Certified Survey Technician – Level III (NSPS-ACSM)

Certified Safe2Work

Confined Space Entry

CAICE Visual Survey Training  
CAICE Software Corp., 2001

# Craig Bagby, CST III

## Senior Project Surveyor

**Honda Engine Plant 2PX – Anna, OH** – Senior Project Surveyor - Performed as-built measurements for anchor bolts and precise crane rail survey.

**Honda P2M-F (Paint Shop) – Greensburg, IN** – Senior Project Surveyor - Computations and field-layout within the paint shop area of this new assembly plant. Crews provided layout for the centerline of proposed columns for a new oven grille, mezzanine, and phosphate equipment.

**National Alabama Railcar - Cherokee, AL** – Senior Project Surveyor - Checked elevations for top of base plates and top of haunch for crane rail assembly.

**Thyssen-Krupp – Mobile, AL** – Senior Project Surveyor - Performed anchor bolt survey. Set shims to elevation of bottom of base plate elevation. Providing assistance in erecting steel by checking plumb. Providing precise horizontal and vertical layout for crane rail.

**Compuware Headquarters, Detroit, MI** - Senior Project Surveyor - Boundary and topographical surveys and three-dimensional easements to be used for the design of the Compuware Headquarters, a re-development project in downtown Detroit.

**Visteon Headquarters, Van Buren Township, MI** – Senior Project Surveyor responsible for computations for construction layout of initial grade, rough grade, and final grade for earthwork. Also performed computations for pavement layout.

**GM Lansing Delta Township - Body Shop and General Assembly Building - ASRS Bldg. As-Built, Lansing, MI** - Computed construction staking and comparisons of field as built locations of columns and walls. Produced Excel files and AutoCAD drawings of as built.

**The Forum, City of Sterling Heights, Macomb County, MI** - Supervised Survey Crew and compiled office calculations for construction staking of underground utilities, roads, Parking lots, and Buildings for a 65 Acre shopping mall.

**Kresge Foundation Bldg., Troy, MI** - Computed locations, elevations, and measurements of erected steel, for the prefabrication of exterior metal and glass panels for a modern addition on to an existing farmhouse and barn, for the Kresge Foundation headquarters.

**Hayes Road Sanitary Extension Aerial Mapping, Macomb County, MI** - Established horizontal and vertical control, and measured aerial control points for nine mile long sanitary sewer extension.

**Trenton, MI** - Supervisor for GPS field observations and data processing for aerial mapping control and sewer rehab project.

**Relief Sewer from Bon Brae to Hoffman Pump Station, Lake St. Clair Clean Water Initiative, Macomb County, MI** - Project Surveyor for the construction of 2 ½ miles of underground utilities and a four lane road. Work included computations for Construction

# Craig Bagby, CST III

## Senior Project Surveyor



Staking and compilations of As-Built Survey. This relief sewer runs parallel to Jefferson Ave. and has been designed to provide adequate capacity for conveyance of flows.

**Gratiot Avenue Water Main Replacement Clinton Township, MI** - Surveyor for the design of the Gratiot Avenue water main replacement project to replace a 40-year-old water main system. The project involved water main design and contract document preparation, estimates of construction cost, permit/approval acquisition, project scheduling, bidding, construction layout, and construction contract administration.

**DWSD 12A-15 Mile & Garfield Void Invest, Macomb County, MI**

Computed location of 11' sewer from existing drawings, and GPS field located sewer for borings checking for void locations. Follow up project to sewer failure sink hole project.

**DWSD, Detroit, MI** - Supervisor for various surveying projects for Detroit Water and Sewerage Department in the City of Detroit.

**DWSD CS-1292 Palmer Woods, Detroit, MI** - Surveyor for topographical survey; establishment of ROW lines; staking ROW; staking of grades of new street grades; monumentation setting; and assisting the construction contractors to establish grades for the reconstructed pavements.

**DWSD - CS-1284 Connor Creek CSO Control Facility, MI** - Supervisor for topographic mapping.

**Troy Beaumont Pedestrian Bridge – Troy, MI** – Senior Project Surveyor - Verified anchor bolt as-built and provided assistance in erecting steel prior to installation of pre-fabricated bridge structure.

**Port Huron Local Streets Re-alignment Port Huron, St. Clair Co., MI** – Topography and right-of-way determination of six local Port Huron streets under the Blue Water Bridge for security improvements, geometric improvements, ADA ramps, drainage improvements, and utility relocation for MDOT.



# M. Jack Knowles, RLA

## Landscape Architecture Task/Project Manager

Successful results are what Jack brings to the table. With more than 40 years of experience in the land development design and approval process, he has acquired the knowledge for dealing with zoning and regulatory bodies to assist clients in achieving their goals on a wide variety of design and land development projects.

Jack understands the importance of balancing the client's needs and objectives, community concerns and planning regulations, and the development potential of the land. His knowledge of site engineering principles, planning theory, and concepts coupled with his design education as a Landscape Architect, provide him with the tools necessary to lead the land development team.

His positive attitude and likable personality serve him well in representing clients in front of municipal and regulatory bodies.

### RELEVANT EXPERIENCE

**Plymouth Canton Community Schools – Cherry Hill Middle, Canton MI** – Landscape Architect – Responsible for site planning and engineering of 23-acre/800-student middle school complex, including track/field and tennis athletic facilities, automobile and bus circulation and parking areas, ADA compliance and overall landscape master plan.

**Birmingham Seaholm High School, Birmingham, MI** – Landscape Architect – Responsible for design of outside student activity area and ADA pedestrian circulation and access.

**Birmingham Andover High School, Birmingham, MI** – Landscape Architect – Responsible for design of overall campus athletic fields, parking and circulation areas, and student gathering spaces.

**Taubman Health Sciences Library Addition, University of Michigan, MI** – Landscape Architect – Responsible for detailed landscape design for primary and secondary entrance areas, recessed courtyard, pedestrian walkways, street side landscape and general foundation planting.

**Pontiac Intermodal Transportation Terminal, Pontiac, MI** – Landscape Architect – Responsible for the overall landscape layout, material selection, and detail plans for construction for the site design surrounding the Terminal building. Features includes major site grading, overall site drainage, plantings adjacent to I-75 BL(Woodward Avenue), parking and drive areas subject to typical roadway maintenance activities, and ADA compliant pedestrian walkways. Site plans underwent review process by MDOT Oakland TSC.

**Woodward Avenue Boulevard Landscaping, Pontiac, MI** – Landscape Architect – Responsible for the site plan, landscaping and site engineering for 4,800' of state trunkline boulevard. Services include landscape inventory and analysis, new design concepts and complete construction drawings and specifications. The project will be reviewed and approved by MDOT Oakland TSC.

**Lucas Nursery, Superior Township, MI** – Landscape Architect – Responsible site plan development and detail design for entire site. Project included site design and engineering,

### EDUCATION

Bachelor of Landscape Architecture,  
University of Michigan

### REGISTRATION

Registered Landscape Architect,  
Michigan, Ohio, and Texas

### PROFESSIONAL AFFILIATIONS

American Society of Landscape Architects  
Michigan Association of Planning

Scio Township Planning Commission  
1994-2014  
1999-2004 Chair

Scio Township Zoning Board of Appeals  
1991-1994  
2004-2006 Chair

Scio Township Board of Trustees  
2008-2016

Governor appointment to the Great Lakes  
Wind Council - 2009

# M. Jack Knowles, RLA

## Landscape Architecture Task/Project Manager

acquiring MDOT permits, drainage, detail grading. Roadside plantings included trees suitable for the roadside environment, designed for placement outside of roadway clearzone.

**Macomb Township Veterans Memorial, Macomb Township, MI** – Landscape Architect – Responsible for overall site design and construction plans for the Memorial site adjacent to Township Hall. Design used numerous ornamental and woody native plantings to minimize maintenance and provide seasonal color and year round value. Project included all site engineering, including drainage, earthwork, hardscape features, barrier-free access routes, and lighting.

**East Outer Drive Beautification Project on Outer Drive at 7 Mile Road, Detroit, MI** – Landscape Architect – Responsible for site design, grading and landscaping of one-half mile boulevard enhancements, in conjunction with the Greening of Detroit.

**Bilkie Miracle Field, Plymouth, MI** – Landscape Architect – Responsible for overall site and landscape design of baseball facility specifically designed for children and young adults with physical disabilities. Project involved strict design specification for universal barrier free access to all components of the development.

**Pearl Albert Green Park, Bedford Township, MI** – Landscape Architect – Municipal pocket park utilizing sustainable design techniques including wind turbine, pervious pavement, LED lighting, bio-swales, and native plantings. Provided: Base Surveys, Park Planning, Site Engineering, and Landscape Development.

**Monroe Township Recreation Park, Monroe Township, MI** – Landscape Architect – Multi-use active recreation park including universally accessible play structure, tennis courts, volleyball courts, picnic shelters with barrier-free restroom facilities, concession area, fishing pond and handicap-accessible fishing dock, and a 12 field baseball complex all interconnected with a barrier-free pedestrian pathway system. Provided: Topographic and Boundary Surveys, Site Planning, Site Engineering, Stormwater Management, and Landscape Development.

**Lakepointe Soccer Park, Plymouth Township, MI** – Landscape Architect – Four field soccer complex, shelter, barrier-free restroom facilities, parking areas, and adjacent residential neighborhood all linked together with a barrier-free pathway system for pedestrians and bicycles. Provided: Topographic Survey, Site Planning for entry drive, parking, and shelter area, and Site Engineering.

**Brighton Township Community Park / Brighton Township, MI** – Landscape Architect – Reclamation of a former sand extraction area. Multi-use recreation park including soccer fields, picnic areas, lakefront, parking areas, and sled hill linked by a pedestrian pathway.

**McLane Distribution Facility, Romulus, MI** – Landscape Architect – Responsible for overall site planning and engineering for 25 acre corporate regional headquarters for wholesale food distributor located adjacent to Detroit Metro Airport.

# Kristen M. Whise, RLA, LEED AP BD+C

## Landscape Architect

Kris has always been the go-to person to get things done. This has been a result of her diverse work and educational backgrounds. Her Landscape Architectural degree didn't restrain her from spending many months on a survey crew performing topographic surveys and setting scores of construction stakes. Spanning the industry change over from hand drafting to CAD, Kris has always been at the fore front of software adaptations as they have related to her professional work. Recent additions to her educational portfolio in computer graphics and web design have expanded these skills.

Besides getting things done, Kris is a master at managing the details. This has included the organization of design and construction plan sets, grant management, construction contract documents, and in-the-field construction management. Her diversity of skills blending the design aspects, plan production, and in-the-field understanding guarantee project success. On top of these talents, Kris has also achieved LEED AP BD+C status enabling her to assist clients with environmentally responsive solutions.

With over twenty five years of experience, a professional license as a Landscape Architect, strong background in civil engineering, surveying and construction, extensive skills in communication, and permit/approval acquisition, Kris is a worthy addition to any team.

### RELEVANT EXPERIENCE

**2013 Streetscape Improvements Project, Plymouth Township, MI** – Landscape Architect – Responsible for estimating design services, presentation materials and participation in proposal development, on-site investigations, inventory and analysis, plan preparation for preliminary concept development with anticipation of final construction documents, client correspondence, and collaboration. This project is the continuation of street improvements by the Plymouth Township DDA, which completed its first phase in 2005. This work will carry the Ann Arbor Road corridor character for +/-1.25 miles west of the previous project and is intended to further develop the sense of community and continuity for the Township.

**Woodward Avenue Median Improvements, Pontiac, MI** – Landscape Architect – Responsible for Client correspondence and collaboration, site investigation, inventory and analysis, preliminary plan and construction document preparation. The focus of this project was to develop an appealing, very low maintenance median planting scheme to enhance the overall aesthetics of that one mile stretch of Woodward Avenue.

**Livonia Police Department, Livonia, MI** – Landscape Architect – This project included the redevelopment of the public entrance area to the city police department headquarters, including barrier free access and aesthetic enhancements to an existing facility. Project responsibilities included client communications, preliminary design work, site element research and selection, presentation graphics and preparation of bid documents.

**Avon Road Intersection Improvements, Rochester Hills, MI** – Landscape Architect – Responsible for preliminary site evaluation, conceptual plan preparation, budgetary cost estimating, amenity research and team coordination. The focus of this project was to provide aesthetic improvements to the intersection of Avon Road and Livernois, in conjunction with bridge replacement projects over those two roads. The Southeast corner is

### EDUCATION

Certificate in Web Design  
Schoolcraft Community College, 2011  
Associates of Applied Science  
Computer Graphics Technology  
Schoolcraft Community College, 2010  
Bachelor of Landscape Architecture,  
Michigan State University, 1989

### REGISTRATION

Registered Landscape Architect,  
Michigan, No. 1218, 1996

### CERTIFICATION

LEED Accredited Professional BD+C, USGBC

### PROFESSIONAL AFFILIATIONS

American Society of Landscape Architects  
Michigan Green Building Council

### COMMUNITY VOLUNTEER ACTIVITIES

Salvation Army  
Goodfellows  
Plymouth Township  
Annual 4<sup>th</sup> of July Picnic  
River Bend Condominium Association  
President, 2006 - 2013  
Newsletter Editor – Social Club

# Kristen M. Whise, RLA, LEED AP BD+C

## Landscape Architect

to be the highlight of the intersection with a decorative “monument” element welcoming visitors to the City of Rochester Hills.

**Plymouth-Canton Community Schools** – Landscape Architect – Responsible for on-site field investigations, coordination and integration of design work with various other design consultants, municipal / and school district regulation research, design validation, construction document preparation, permitting and construction phase activities for numerous schools within the district. The focus of these projects was to improve pedestrian and vehicular circulation/safety and implement best management practices in regards to storm water maintenance and current standards and regulations.

**Northville Bennett Arboretum Pathway, Northville MI** – Landscape Architect – Responsible for research and development of six interpretive signs to be implemented as part of a greater barrier free pathway and educational system, to be installed within the Bennett Arboretum. This project was funded, in part, by a Rouge River National Wet Weather Demonstration Project Grant, thus was prepared in accordance with specific guidelines and regulations.

**Miller Family Park, Plymouth MI** – Landscape Architect – Multi-use active recreational park including multi-age play structure, open play fields, and picnic areas. Provided: Site Development / Planning, Community Meetings, Landscape Development, Site Engineering, and Construction / Survey Staking.

**Outdoor Classroom, Plymouth Township, MI** – Landscape Architect – Supervised design, grant funding, and construction of an outdoor classroom for use in conjunction with a multi-grade school curriculum aimed at reducing impacts to storm water runoff. The “classroom” encompassed a barrier free walking path, seventeen interpretive signs placed at strategic featured locations, and a printed guide for students and the general public. Project was done in conjunction with a community’s Storm Water Permit and included RPO Grand funds.

**Sprayscape/Winter Ice Rink Facility, Plymouth Township, MI** – Landscape Architect – Designed and prepared construction documents for a combination summer sprayscape/water park and winter skating area. Program included survey of residence for selection of “water toys”. Design included significant site grading, utility services, water control equipment, and complete site furniture and landscaping.

**Lakepointe Soccer Park, Plymouth Township, MI** – Landscape Architect – Four field soccer complex, shelter, barrier-free restroom facilities, parking areas, and adjacent residential neighborhood all linked together with a barrier-free pathway system for pedestrians and bicycles. Provided: Topographic Survey, Site Planning for fields, entry drive, parking, and shelter area, Site Engineering and Landscape Development.

**Kalitta Air, Willow Run Airport, MI** – Landscape Architect – A growing company, Kalitta Air and Kalitta Charters II LLC required the expansion to their existing campus of buildings. The project included the architectural development of a building addition and one new building. Responsibilities included client meetings, site inspections and data development, coordination with outside design consultants construction document preparation and submittals to governing bodies for approvals and permits.

## APPROACH

The sequence of work tasks called out in the State of Michigan standard contract is a good guideline of the anticipated sequencing of the Work Plan, specific tasks, and deliverables needed for typical projects. We understand that work associated with this ISID contract could include any of the seven phases of the standard contract: Phase 100 – Study Phase; Phase 200 Program Analysis; Phase 300 – Schematic Design; Phase 400 – Design Development; Phase 500 - Final Design; Phase 600 – Construction Administration Office; and Phase 700 Construction Administration Field. The chart shown to the right indicates the specific phases and tasks that SDA could potentially be involved with on any given project.

We understand that each assignment that comes as a result of this contract will likely have different requirements, ranging from the study phase through design and construction, and it is therefore difficult to spell out a work plan for the specific tasks at this time. In lieu of a work plan, therefore, we will present our management approach and a typical schedule below.

## MANAGEMENT PLAN

In general, the most important aspect of any project is open communication with the client, internal staff, and all other team members. At the onset of an assignment, we will designate a Project Manager to be the single point of contact between DTMB personnel and SDA. This manager will be selected from our significant bench strength based on the specifics of an assignment, and that manager's particular skill set. For instance, we have managers that are better situated for major infrastructure projects versus parking lot design.

The Project Manager will be responsible for developing a work plan and schedule for the project, and ensuring that the schedule is adhered to. They will also coordinate all operations of our internal staff as well as subconsultants, and will handle coordination between any other disciplines involved on the project.

The Manager will develop a work plan for a particular assignment, which will be reviewed with DTMB personnel at a project kick-off meeting to ensure that the project direction and expectations are clear between all the parties. Our standard procedures also dictate that we will have an in-house kick-off meeting to make sure that all of our team members that will work on the project have a full understanding of the scope, schedule, budget, and client expectations.

### **DTMB Standard Phases & Tasks**

#### **100 – Study Phase**

- 101 – Coordination
- 102 – Research
- 103 – Analysis
- 110 – Study Report

#### **200 – Program Analysis**

- 201 – Coordination
- 202 – Analysis
- 203 – Development
- 209 – Project Cost Estimate
- 210 – Program Analysis Report

#### **300 – Schematic Design**

- 301 – Coordination
- 302 – Code Reviews
- 303 – Civil – Site Investigation
- 308 – Drafting
- 309 – Project Cost / Proposed Construction Schedule

- 310 – Schematic Design Review

#### **400 – Preliminary Design**

- 401 – Coordination
- 402 – Specifications
- 403 – Civil/Site Investigation
- 408 – Drafting
- 409 – Cost Estimate / Schedule
- 410 – Preliminary Design Review

#### **500 – Final Design**

- 501 – Coordination
- 502 – Specifications
- 503 – Civil/Site Investigations
- 508 – Drafting
- 509 – Check Contract Documents
- 510 – Construction Codes / Permits
- 513 – Design / Construction Budget
- 514 – Construction Schedule
- 515 – Final Bidding Doc Review
- 516 – Bidding / Contracting
- 517 – Final Design Correction

## II-3 Management Summary

As a project proceeds through the various phases, we will hold internal team meetings on a regular basis, with the frequency of those meetings being determined at the start of the project based on size, complexity, and schedule of the project. In tandem with these in-house meetings, the manager will also arrange progress meetings with DTMB based on your preferences. Whenever possible and when all parties are in agreement, these meetings could be conducted remotely using web software (GoToMeeting, WebEx, etc.). We find this to be an efficient and cost-effective way to “meet” with team members to review project progress. Of course, if complex or critical issues must be discussed, a face-to-face meeting may be preferred.

### **QUALITY ASSURANCE / QUALITY CONTROL**

Our Project Manager will also ensure that SDA’s documented QA/QC process is adhered to at all times. This process was developed as part of an ISO 9001 certification for SDA. This process calls for internal reviews at various stages to ensure quality goals are being met. We can provide a copy of our detailed QA/QC plan if requested.

### **CONSTRUCTABILITY REVIEW**

As a project works its way through the design process, SDA conducts a constructability and value engineering analysis to ensure that the project will be built with an efficient combination of methods and materials. This approach results in a construction project completed in a manner that makes an efficient use of time and financial resources. Depending on the scale and complexity of the design, an individual or team will be appointed that has the appropriate level of design and construction expertise to perform such an analysis. In some cases, these experts are selected from SDA staff, and in other cases specialists could be retained from external sources. It is important that these reviewers have not been involved in the original project design, so a high level of objectivity in the evaluation is obtained.

This analysis includes:

- Constructability Analysis
- Value Engineering Analysis
- Quantity Take-Offs
- Review Site Geometrics
- Site Walk-Through
- Determine Necessary Permits
- Provide Engineer’s Opinion of Construction Cost
- Review Geotechnical Reports

This process is fully documented, with each key area of the design and section of the contract documents evaluated on both checklists and comments written directly on the design documents. At the conclusion of the initial evaluation, the Design Team is brought in with the evaluators in a “resolution meeting” to discuss areas of concern. After a thorough airing of opinions, necessary revisions are made to the contract documents. If appropriate, recommendations are made to the client concerning alternative approaches, with advantages and disadvantages associated with each option fully explained. SDA will indicate its recommendation on which option to select, supported by objective reasoning.

### TYPICAL SCHEDULE

A project schedule will be developed at the beginning of each assignment. Since project sizes can vary significantly, we are providing the following notes/schedule in reference to an assignment with a fee of \$50,000.00. Please note that timelines rely on DTMB for timely responses to project reviews.

1. SDA would expect to assign a Project Manager and initiate project kick-off meetings within one week of receiving formal notice to proceed.
2. An assignment involving a Study Phase (Phase 100) would be expected within four weeks of notice to proceed.
3. Design phase services (Phases 300 to 500) would be completed within 12 weeks of notice to proceed.
4. Construction time periods can vary greatly depending on size and complexity of the project. We would expect a project with a fee of \$50,000.00 would take six to nine months to complete.

SDA is fully committed to providing the necessary staff and resources to DTMB to meet each project's goals and the expectations of DTMB personnel. We can pull individuals from our staff of 80+ employees to provide the proper mix of people to complete your project successfully.





Questionnaire for Professional Services
Department of Technology, Management and Budget
2014 Indefinite-Scope Indefinite-Delivery – Request for Qualifications
Architecture, Engineering, and Landscape Architecture Services
Various Locations, Michigan

INSTRUCTIONS: Firms shall complete the following information in the form provided. A separate sheet may be used if additional space is needed; please key the continuation paragraphs to the questionnaire. Answer questions completely and concisely to streamline the review process.

ARTICLE 1: BUSINESS ORGANIZATION

1. Full Name: Spalding DeDecker Associates, Inc.
Address: 905 South Boulevard East, Rochester Hills, MI 48307
Telephone and Fax: Phone (248) 844-5400 Fax (248) 844-5404
Website: www.sda-eng.com E-Mail: tsovel@sda-eng.com
Professional(s) federal I.D. number(s): 38-1598901

If applicable, state the branch office(s), partnering organization or other subordinate element(s) that will perform, or assist in performing, the work:

N/A

2. Check the appropriate status:

Individual firm Association Partnership Corporation, or Combination – Explain:

If you operate as a corporation, include the state in which you are incorporated and the date of incorporation:

Michigan 9/1/1958

Include a brief history of the Professional’s firm:

In September of 1954, Spalding DeDecker & Associates (SD&A) was born in a small store front office on Woodward Avenue in Birmingham, Michigan. SDA’s founders, Vernon Spalding and Frank DeDecker, began a partnership with a simple verbal agreement, a handshake, and an oath to focus on quality in workmanship and integrity in client service.

With the retirement of Frank DeDecker in 1994, the firm was converted to a 100% employee-owned business, giving each team member a vested interest in the success of the company and ultimately, our clients.

In the summer of 1995, SDA opened its first Detroit office and maintains its Detroit presence today to serve Wayne County clients.

In 1996, SDA purchased vacant land in Rochester Hills, Michigan and built a larger office to house its growing Oakland and Macomb County operations.

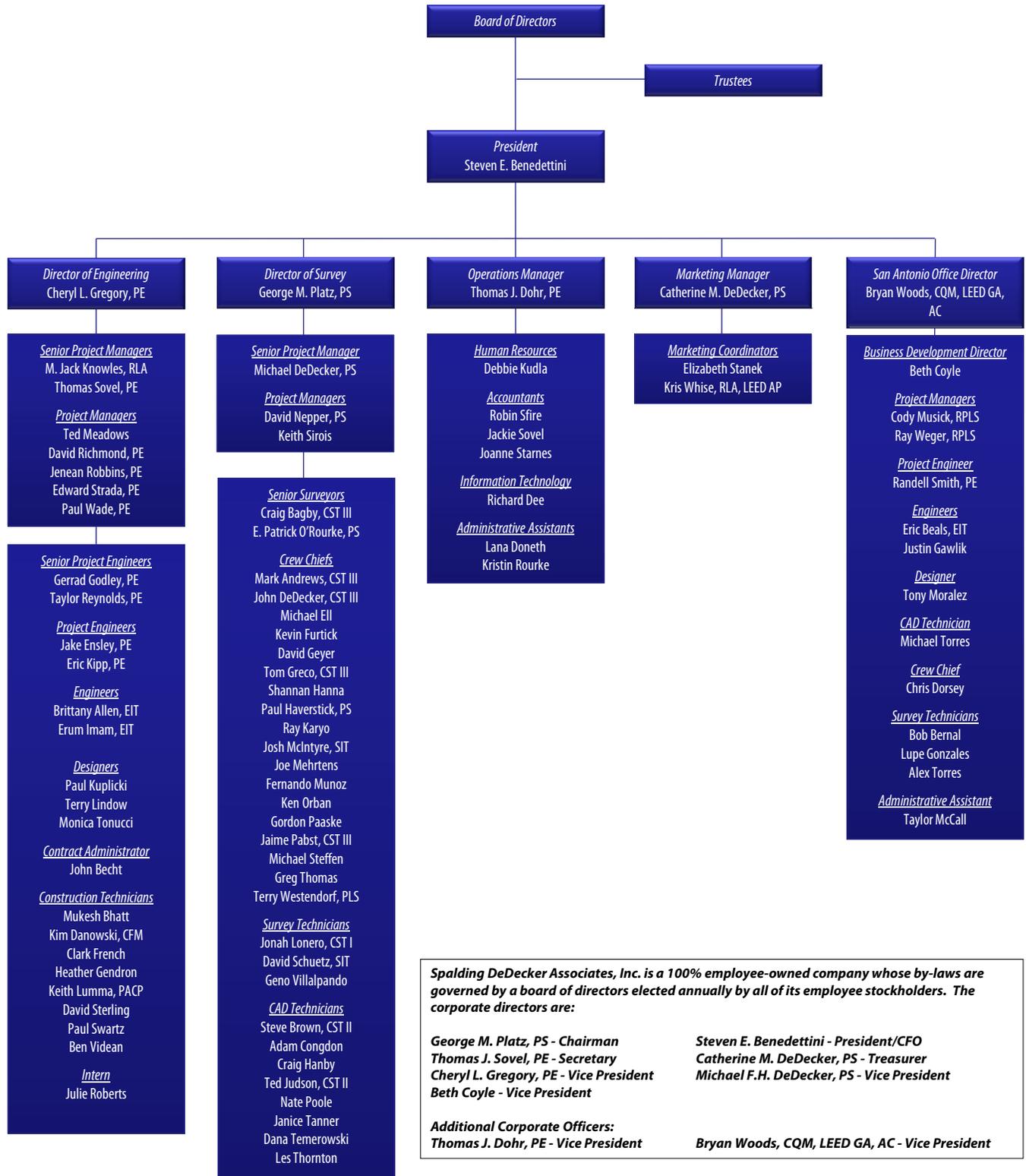
In 2003, SDA was awarded its ISO 9001-2000 Certification. This certification translates into a clear vision of the organization's future. It means SDA is committed to establishing measures to ensure customer satisfaction and communicating customer needs and expectations throughout the organization.

In 2009, Dietrich, Bailey and Associates, PC joined the SDA family, adding landscape architectural services, and expanding our civil engineering and surveying client base. SDA employs more than 80 talented individuals with a wide range of skills and expertise.

In 2012, San Antonio-based Coyle Engineering, Inc. joined the SDA family.

Headquartered in Rochester Hills, Michigan, SDA has regional offices in Detroit and San Antonio, along with multiple field offices in Michigan and Ohio. SDA offers a diverse core of engineering and surveying services for municipal, land development, transportation, and water/wastewater projects. The firm also offers complete construction engineering and landscape architectural services.

Provide an organization chart depicting all personnel and their roles/responsibilities.



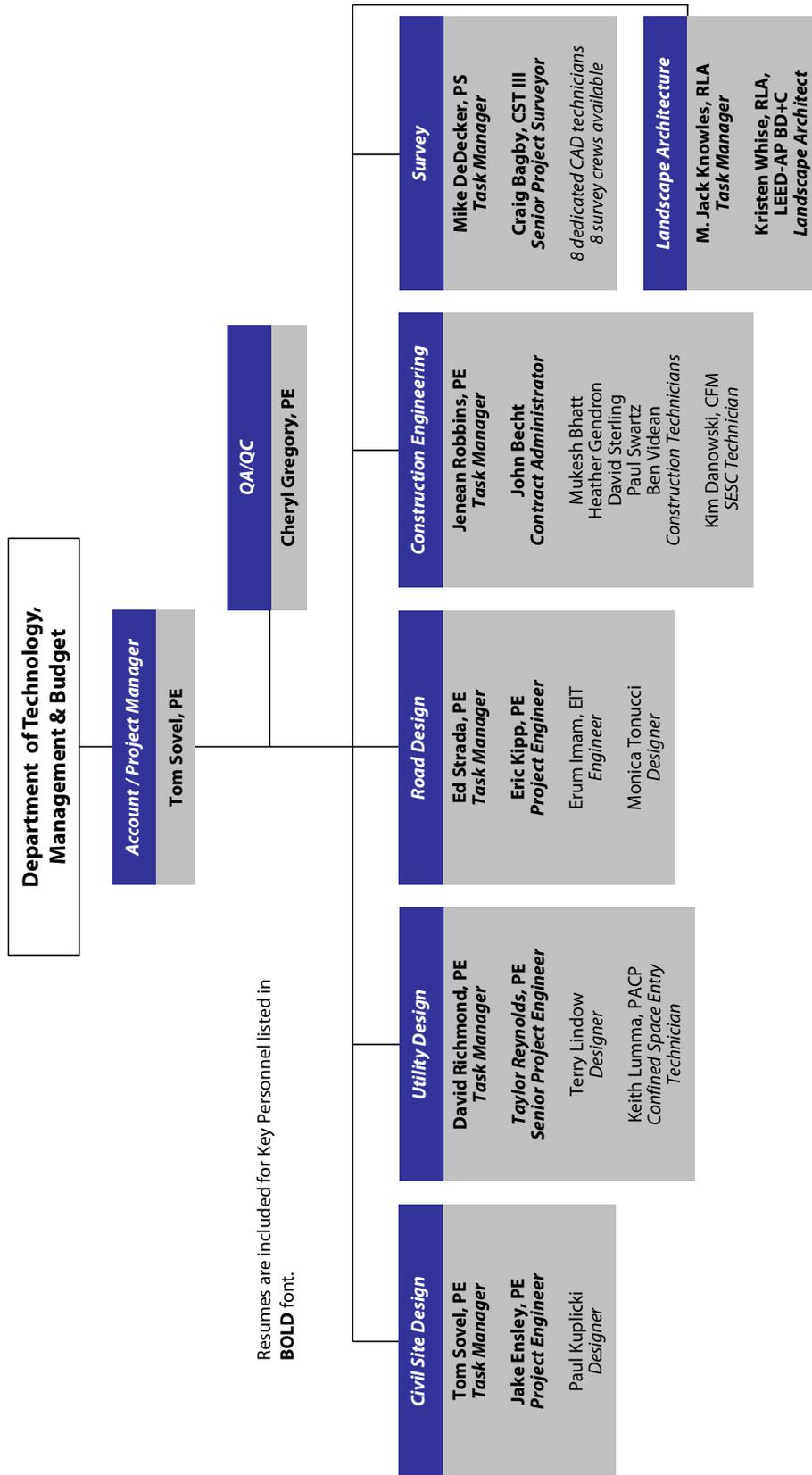
**Spalding DeDecker Associates, Inc. is a 100% employee-owned company whose by-laws are governed by a board of directors elected annually by all of its employee stockholders. The corporate directors are:**

<b>George M. Platz, PS - Chairman</b>	<b>Steven E. Benedettini - President/CFO</b>
<b>Thomas J. Sovel, PE - Secretary</b>	<b>Catherine M. DeDecker, PS - Treasurer</b>
<b>Cheryl L. Gregory, PE - Vice President</b>	<b>Michael F.H. DeDecker, PS - Vice President</b>
<b>Beth Coyle - Vice President</b>	

**Additional Corporate Officers:**

<b>Thomas J. Dohr, PE - Vice President</b>	<b>Bryan Woods, CQM, LEED GA, AC - Vice President</b>
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Provide an organization chart depicting key personnel and their roles for a typical assigned project. Include generic supporting staff positions.



**ARTICLE 2: PROJECT TYPES AND SERVICES OFFERED**

Identify the project types and professional services for which your firm is exceptionally qualified and experienced. Provide attachments illustrating a minimum of three examples, with references, of successful projects performed in the last five years for each item checked. Identification of specialties will not exclude selected firms from project types, but will assist the DCD Project Directors in matching firms with projects.

*(Project profiles are included after this questionnaire)*

- ADA facility assessment and remodeling
- Boilers and steam systems
- Bridges – pedestrian and vehicular
- Building and structure additions
- Building envelope investigation, repair, upgrade
- Correctional facilities
- Door and window replacement
- Fire and security alarm systems
- Fish passage structures
- General architectural and/or engineering design
- HVAC equipment replacement, upgrade, selection
- HVAC controls replacement, upgrade, selection
- Interior remodeling and renovation
- Laboratory facilities
- Landscape architecture
- Land Planning
- Locks and dams
- Maintenance and facility preservation
- Marine work - boat launch facilities, docks, harbors
- Parking and paving
- Roof repair, restoration and/or replacement design
- Site surveying
- Stormwater management and drainage plans
- Structural investigation and assessment
- Toilet and/or shower room remodeling or design
- Trail design and development
- Wastewater systems
- Water supply systems
- Water diking systems, water control structures

**ARTICLE 3: PROJECT LOCATION**

Identify the regions where your firm can most efficiently provide services. Assignments may vary from the regions checked, depending on the specialties and services required.

- Western Upper Peninsula (west of Marquette)
- Eastern Upper Peninsula (east of Marquette)
- Northern Lower Peninsula (north of Grayling)
- Saginaw Bay area (east of 127, north of I-69 and M 57, south of Grayling)
- Western Lower Peninsula (west of 127, north of Muskegon, south of Grayling)
- Central Lower Peninsula (east of Battle Creek, west of Chelsea, south of M 46 and M 57)
- Southwestern Lower Peninsula (west of Battle Creek, south of Muskegon)
- Southeastern Lower Peninsula (east of Chelsea, south of I-69)

**ARTICLE 4: CONTRACT UNDERSTANDING:** The following items should be addressed on the assumption that your firm is awarded an Indefinite-Scope, Indefinite-Delivery contract. (See attached sample contract).

- 4.1 Is it understood that your firm is required to respond to small projects (less than \$25,000) as well as large projects?  
Yes  No
- 4.2 Is it understood that there is no guarantee of any work under this contract?  
Yes  No
- 4.3 Is it understood that your firm will be required to execute the attached standard State of Michigan contract language for professional services?  
Yes  No
- 4.4 Is it clearly understood that professional liability insurance is required at the time of execution of the ISID contract? (See Article 5 of the attached Sample Contract.)  
Yes  No
- 4.5 Is it understood that your firm must comply with State of Michigan law as it applies to your services?  
Yes  No
- 4.6 It is understood that your firm must obtain a State of Michigan, Department of Civil Rights Certificate of Awardability (see RFP for information regarding the Certificate of Awardability)? If your firm currently has a Certificate of Awardability, provide its expiration date. \_\_\_\_\_  
Yes  No

**ARTICLE 5: CAPACITY AND QUALITY**

5.1 Briefly describe your firm’s methods and procedures for quality control for your deliverables and services.

In order to provide the DTMB with comprehensive Quality Assurance and Quality Control, the SDA Project Team will utilize the Quality Management System (QMS). This system provides an effective, thorough program to assure that the Team’s methods and work products, including stakeholder processes, site investigation, contractual documents, design files, sub-consultant work, and final work products are organized in accordance with acceptable standards, project specific requirements, and a high level of professionalism.

**Overview**

SDA’s QMS is based on the following basic principles:

- Correctness, Uniformity, and Legibility of Contract Documents
- Document Control and Process
- Maintenance of Schedules and Deadlines
- Cost Control

**Milestone Reviews**

The QA/QC Engineer, Cheryl Gregory, PE will perform extensive quality assurance reviews at scheduled milestones. By having Ms. Gregory review the design plans, specifications, and estimate, we assure an unbiased, objective review process. An overall plan review will ensure uniformity and consistency of the entire contract bid documents. Ms. Gregory is very knowledgeable in standards and specifications which will assure that the

plans, pay items, and special provisions are prepared in accordance with current standards and format requirements. Each QA/QC review will include the following tasks:

1. Review file for contract documents, including amendments, schedule revisions, and progress reports.
2. Review checklists and document logs to ensure project engineers are following calculation checks and tracking correspondence at the project level.
3. Make checks of quantities calculations and engineering.
4. Conduct detailed review of deliverables for each phase and Final submittals.

Detailed reviews of deliverables will follow SDA checklists for the appropriate milestone in accordance with our Corporate ISO procedures. The reviews will verify that CAD standards, quantities and pay items, and plan formats are consistently uniform and in accordance with requirements. On a more practical level, our QA/QC Engineer’s previous field experience allows her to assess constructability, the practicality of notes and specifications, and that the proposed work is presented logically, clearly, and without ambiguity. All reviews are to be documented and reviewed with the SDA Project Manager and then back-checked to confirm corrections have been made and all previous comments or questions have been addressed.

**Schedules, Deadlines, and Cost Control**

Our Project Manager, Tom Sovel, PE, will use an internal Gantt chart to track PPMS task progress and make periodic adjustments in resources to assure that submittal and meeting deadlines are met. By reviewing staff workloads, project schedules, and deadlines each week, Mr. Sovel can make any needed adjustments to ensure that the project receives the appropriate staffing, expertise, and production to meet the client’s expectations. Mr. Sovel will provide the client with a monthly progress report to formally document the project progress and identify any anticipated changes to schedule or cost.

To manage the design budget, Mr. Sovel will use SDA’s internal project accounting system (Deltek Vision) weekly to track the resources being used toward the progress of the project. Regularly scheduled progress meetings will be conducted internally to review status of design issues, subconsultant performance, deliverables, and any items which may impact the overall design or construction budget. The client’s Project Manager will be notified promptly if significant changes to design or construction costs are anticipated.

**5.2 Has your firm been involved in claims or suits associated with professional services errors and/or omissions?**

Yes  No

If yes, explain:

Year/Name/Location	Nature	Status/Outcome
2013 New Huron Township Hall, Huron Township, MI	Premature failure of parking lot pavement. We assert that the primary cause is poor soils and inadequate maintenance.	2013 Settled during mediation. Settlement terms are confidential.

2010 Beaumont Hospital Grosse Pointe, Michigan Construction of a building addition and parking lot reconfiguration	The Contractor connected a new foundation drainage system to an old, abandoned line. This resulted in flooding to the building. The Contractor made a claim on the design team for a cost- sharing arrangement. SDA was not involved in the foundation drainage system in any way and did not provide the topographic survey of the site. We denied responsibility.	2011 We denied responsibility, but settled for a nominal amount to close the claim, with the final terms being confidential.
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Note: List represents claims over the last five years.

**5.3 Will there be a key person who is assigned to a project for its duration?**

Yes  No

**5.4 Please present your understanding of the relationship between your firm, the DTMB Design and Construction Division, and the State Agency for whom a project will be completed.**

SDA understands that our contract will be with the DTMB Design and Construction Division. SDA will need to communicate with both the DTMB and the State Agency that is involved on the particular project, as they have a vested interest. They operate and maintain the facilities SDA will establish a communication plan at the onset of each project that is acceptable to all stakeholders.

**5.5 Describe your approach if a bidder proposes a substitution of a specified material during bidding.**

SDA will review the specifications on the substitution and confirm that it meets or exceeds the specified material and is suitable for the proposed use. Assuming it does meet or exceed the requirements, SDA will confirm acceptance with interested parties, including the owner. If acceptable to all parties, we will issue formal acceptance.

**5.6 Describe your approach if a contractor proposes a substitution of a specified material or detail with shop drawing submittals or in construction.**

See 5.5 above. The approach is the same.

**5.7 How will your firm provide consistent and continuous communication pertaining to project activities and project status to the State of Michigan during the progress of projects?**

The single point of contact for SDA will communicate directly with point of contact with DTMB.

**5.8 Does your company have an FTP or similar site for quick posting and distribution of information, drawings, field inspection reports, and other communications?**

Yes  No

**5.9 Describe your method of estimating construction costs and demonstrate the validity of that method.**

SDA has worked on hundreds of projects in the State in the last several years. Through this work, we have compiled a significant database of local construction costs. We will utilize this historical data and make appropriate adjustments based on location and other important economic considerations at the current time. We find this to be the most comprehensive way of estimating construction costs.

**5.10 Describe your approach to minimizing construction cost over-runs.**

SDA addresses the two main components of cost control:

1. Project costs as part of SDA's contracted budget
2. Construction costs of our designs

Project costs (labor and expenses) are tracked twice a month (weekly if required by the client or the nature of the project) through a review by the Project Manager. By comparing actual incurred costs with progress of the work, the Project Manager can determine twice a month whether the project is on budget.

The control of construction costs is accomplished by preparing estimates of construction at key milestones of the design process. Any significant deviation from the construction cost estimate that the client has developed is immediately brought to their attention.

**5.11 What percentage of construction cost should be devoted to construction administration (office and field)?**

1.5 to 3% depending on level of construction observation.

**5.12 What portion of the assigned work will be performed with your staff and what portion will be provided by sub-consultants?**

This percentage is dependent on the project assignment.

**5.13 On a typical project, what would be your response time, from the time receive a project assignment to starting investigation and design work? A typical project might be one involving several disciplines and in the neighborhood of a \$25,000 fee.)**

5 Days / 1 Week

**5.14 How do you assess whether a construction bidder is responsive and responsible?**

If we do not have experience working with a particular contractor, we can investigate the following:

- References
- DUNS number
- Credit Rating
- Better Business Bureau
- Discuss with colleagues in the industry to find others who have worked with the contractor

Discussing the contractor with references or colleagues is the preferred method to get an idea on the responsive of the contractor and whether or not they handled projects in a responsible manner and treated and owners fairly.

**5.15 Describe your firm’s understanding of Sustainable Design and LEED Certification.**

SDA has worked on several LEED projects, and can work with the design team to determine site design items where sustainable design can be utilized. This might include bio-retention areas, rain gardens, infiltration measures, porous pavement, low irrigation landscaping, etc. Whatever options are available, it is critical to have buy-in from all parties, including the owner, prior to implementation. We currently employ two LEED Accredited Professionals.

**5.16 Describe your experience with similar open-ended contracts.**

SDA has held open-ended contracts with communities in Michigan since 1954. SDA currently holds several similar open-ended contracts with municipalities, state agencies, and institutions. SDA’s current clients with open-ended contracts include:

- Michigan Department of Transportation (MDOT) As-Needed Design Services and As-Needed Survey Services
- Oakland University
- Wayne State University
- Armada Township
- Canton Township
- Detroit Recreation Department
- City of Novi
- Oakland County Water Resources Commissioner
- Plymouth Township
- Road Commission for Oakland County
- City of Rochester Hills
- City of Troy

**5.17 Describe your methodology for obtaining information about the existence and condition of an existing, facility’s components and systems.**

For our basic services, this primarily pertains to existing site improvements as to internal functions. Old plan or archive information can be invaluable in understanding original construction intent, and we try to obtain this information from the owner on every project. If the owner does not have the old plans, we will try to obtain information from the local governing agency if the original project ever went through a permitting process. Absent any archive information, an updated topographic survey is critical in mapping out the existing conditions (grades and utility locations. This will occasionally need to be supplemented with additional subsurface investigation if utility routes are unclear, which could include pipeline videotaping and jetting, ground penetrating radar, etc.

**5.18 Describe your approach to securing permits/approvals for the following: campgrounds, critical dunes, coastal zone management, projects adjacent to Michigan lakes and rivers.**

In general, projects adjacent to lakes and rivers will require permitting from the DEQ under Act 451 of 1994, the National Resources and Environmental Protection Act. For impact to lakes and rivers, Part 301 will usually apply, as well as Part 303 if wetlands are involved. The State requires the use of the joint permit application, which will sometimes require Army Corps of Engineer review depending on size and sensitivity of the project. SDA is familiar with the application processes for this type of work.

SDA has had very limited involvement with permits/approvals for campgrounds, critical dune, and coastal zone management.

**5.19 Describe your approach to a construction contractor's request for additional compensation for a change in the project scope.**

We take an objective approach to this and work with the owner to determine the following:

Is this a fair request? Is there a clear understanding that they should not have known about the issue and included it in their bid? For instance, is it a clear case of differing field conditions that the contractor and/or team could not have known about? Or does it reflect a clear expansion of the scope?

If in fact it does seem like a fair request, then we review to confirm if the dollar amount is fair. In reviewing the scope of work, we try to determine if the labor and material costs are in line with expected ranges. This review can encompass a range of resource material, including recently bid projects, and a review of pricing catalogs (like Sweets).

In an effort to protect owners against a contractor overcharging for extras, we will often include a unit price tabulation in a bid document, which will be submitted along with a contractor's bid. If unit prices provided by the contractor seem unreasonable, this can be negotiated prior to awarding the project. This holds the contractor to a given unit price in the event that changed conditions arise.

# Project Types and Services Offered

The following projects are just a small sample of the projects Spalding DeDecker Associates, Inc. (SDA) has completed throughout the past five years. Additional project profiles can be provided upon request.

## **ADA Facility Assessment and Remodeling**

Canton Township Facilities Evaluation  
Novi ADA Compliance Transition Plan for City-Owned Facilities  
Detroit Habitat for Humanity ADA Ramps

## **Bridges – Pedestrian and Vehicular**

Clinton River Trail Bridge over Telegraph (US-24)  
Tienken Road Bridge over Stony Creek  
Silver Bell Road Bridge over Grand Trunk Western Railroad  
Macomb Street Bridge Evaluation

## **General Architectural and/or Engineering Design**

MDOT Oakland TSC Transportation Service Center  
Pontiac Transportation Terminal  
Brandon School District – 2006 Bond Projects  
University of Michigan  
Oakland University  
16<sup>th</sup> District Courthouse

## **Landscape Architecture**

Pearl Albert Green Park  
Ann Arbor Road Corridor Streetscape Enhancements, Phase 2  
Macomb Township Veterans Plaza  
Avon Road at Livernois Road – Intersection Enhancement

## **Parking and Paving**

Oakland University Civil Engineering & Surveying Services  
University of Toledo Pavement Management Program  
Eastern Michigan University Pavement Management Program  
Pavement Management Programs – K-12 School Districts

## **Site Surveying**

William Beaumont Hospital  
Professional Surveying Services for Detroit Public Schools  
Cranbrook Educational Community  
Cooley Law School Layout  
As-Needed Surveying for Detroit Recreation Department



SPALDING DEDECKER ASSOCIATES, INC.

Engineering Consultants  
Infrastructure | Land Development | Surveying | Landscape Architecture  
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Department of Technology, Management & Budget  
General Professional Design Services  
PR14-085



# Project Types and Services Offered

## **Stormwater Management and Drainage Plans**

Surface Water Improvement Fund Grant  
Paint Creek Multifunctional Green Infrastructure  
Civic Center and Ella Mae Power Park Detention Basin Rehabilitation

## **Trail Design and Development**

Conner Creek Greenway Terminus  
Northville Bennett Arboretum Pathway  
Novi 2010 Pathway Gap Program  
Novi 2012 Pathway Gap and ADA Compliance Program

## **Wastewater Systems**

Lateral 94 Drainage District Improvement  
Novi 2010 Sanitary Pump Station Upgrade  
Novi Sanitary Sewer Rehabilitation – Areas B, C1, & G

## **Water Supply Systems**

Romeo Plank Water Main Replacement  
New Haven Water Main Extension  
Woodham Road Water Main Extension SAD  
Heide, Thunderbird, and Oliver Water Main Replacement



# Project Types and Services Offered

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General Professional Design Services  
PR14-085

**Canton Township Facilities Evaluation**  
Canton Township, Michigan



**Spalding DeDecker Associates, Inc. (SDA)** and **A3C Collaborative Architecture, Inc.** surveyed all or portions of facilities, structures, roads, walks, and parking lots owned by the Charter Township of Canton. SDA provided the visual inspection of the facilities with respect to applicable accessibility laws,

regulations, standards, and policies as part of the Americans with Disabilities Act (ADA).

The survey results were reported to advise the Charter Township of Canton of the facility modifications that may be required to bring into full ADA compliance. In addition to the written report, non-compliant elements were highlighted on floor plans. Non-compliant exterior features were highlighted on aerial maps. Along with providing descriptions of the elements cited, SDA presented recommendations to bring the elements into compliance.

**OWNER / CLIENT**  
Charter Township of Canton  
Brad Sharp  
(734) 394-5363

**PROJECT START - END**  
May 2009 - June 2009

**PROJECT COST**  
\$4,300.00

**SDA KEY PERSONNEL**  
Terry Lindow  
Dana Temerowski

**SDA PROJECT NO.**  
NP09-029

## Novi ADA Compliance Transition Plan for City-Owned Facilities

Novi, Michigan

In April of 2013, the City issued an RFP to develop an Americans with Disabilities Act (ADA) Compliance Transition Plan for all facilities (parking, sidewalks, and ramps, etc.) on City-owned sites outside the road right-of-way. SDA was awarded the project and began the work in June 2013.

The ADA compliance transition plan includes the following information:

- Provides guidance on requirements for ADA compliance and options available for compliance plan development, including level of detail, phasing, etc.;
- Provides a background on ADA requirements for City-owned facilities outside the ROW;
- Provides an overview of current best management practices for ADA compliant facilities;
- Recommends ADA facility design standards.
- Recommends support system changes necessary to obtain and maintain ADA compliance for all facilities in the City's pedestrian network;
- Develops goals and objectives for the implementation to bring all pedestrian facilities into ADA compliance within the City in a phased-in manner over several years;
- Proposes long-and-near-term improvement recommendations to bring the City's sidewalks and pathways into ADA compliance;
- Provides cost estimates for the required components broken into categories, such as handicapped parking stalls, sidewalks, ramps, etc.;
- Outlines the funding needed to bring the City's existing sites into ADA compliance, and identify potential funding sources;
- Provides estimated annual maintenance and operation costs, and provides recommendations for a maintenance plan component, including itemized estimates;
- Provide drawings or maps to support the above including: Phasing plan; and Design standards.

### OWNER / CLIENT

City of Novi  
45175 W. Ten Mile Rd.  
Novi, Michigan 48375  
Ben Croy  
Civil Engineer  
(248) 347-0456  
bcroy@cityofnovi.org

### PROJECT START - END

June 2013 – Ongoing

### ENGINEERING FEE

\$34,000

### SDA KEY PERSONNEL

Jacob Ensley, PE  
Paul Kuplicki  
Jaime Pabst, CST III  
Thomas J. Sovel, PE  
Dana Temerowski

### SDA PROJECT NO.

NV13-006

## Detroit Habitat for Humanity ADA Ramps

Detroit, Michigan

In the spring of 2008, the Detroit Habitat for Humanity and the City of Detroit contracted out for new ADA compliant ramps and sidewalks to be installed in the Lower Westside of Detroit. The lack of understanding of ADA ramp regulations from the contractor produced non-compliant ramps that were rejected by the approving agency.

**Spalding DeDecker Associates, Inc. (SDA)** was awarded the task of inspecting and evaluating the newly constructed ramps and sidewalks in the area to determine the level of reconstruction needed for compliance and to minimize costs. Based on the information that was gathered, SDA determined the minimal amount of demolition needed to appropriately redesign ADA compliant intersections.

### SPECIAL FEATURES

The project also includes new construction oversight of the concrete formwork prior to the placement of the concrete for Quality Control.



### OWNER / CLIENT

Habitat for Humanity  
Scott Losey  
(313) 521-6691

### PROJECT START - END

April 2009 - May 2009

### PROJECT COST

\$26,850

### SDA KEY PERSONNEL

Michael DeDecker, PS  
Raymond Karyo  
George Platz, PS  
Monica Tonucci

### SDA PROJECT NO.

DE09-001



# Project Types and Services Offered

The following projects are just a small sample of the projects Spalding DeDecker Associates, Inc. (SDA) has completed throughout the past five years. Additional project profiles can be provided upon request.

## **Bridges – Pedestrian and Vehicular**

Clinton River Trail Bridge over Telegraph (US-24)

Tienken Road Bridge over Stony Creek

Silver Bell Road Bridge over Grand Trunk Western Railroad

Macomb Street Bridge Evaluation

## Clinton River Trail Bridge over Telegraph (US-24)

Pontiac, Michigan

**Spalding DeDecker Associates, Inc. (SDA)** was retained by the City of Pontiac to design a new bridge to cross over Telegraph Road (US-24) as part of the Clinton River Trail. The project included the design of the combined pedestrian/bike path bridge, approach work, topographical survey, maintaining traffic, permanent marking, signing, and utility relocation.

### STRUCTURE SURVEY

SDA performed a structure survey. Site control was established using Global Positioning System (GPS) observations and state plane coordinates. Elevations were established in relation to NAVD'88 and adjusted with least-squares methods. Mapping was completed for the proposed structure itself along with the approaches. Alignment was computed along with the proposed bridge centerline, stationing, and reference lines. Traffic control was utilized for safety during mapping. Mapping was completed for underground utilities and surface drainage. SDA prepared a Digital Terrain Model (DTM).

### COMPLEX BRIDGE DESIGN / SHORT AND MEDIUM SPAN BRIDGES

SDA completed a structure study in which several alternates were developed. One study option that was reviewed was a 646'-long, eight-span pedestrian/bike path bridge over US-24. The superstructure would consist of 33" pre-cast, pre-stressed box beams. The substructure would consist of T-type piers and abutments supported by spread footings. The project also included 500' of the retaining walls.

Another bridge alternative consisted of a 380'-6" three-span truss structure (pre-engineered) on column type piers with spread footings and abutments that bear on the approach fill. This, in turn, was the selected structure for this location.

Project challenges consisted of an acceptable plan and profile of the bridge, landing areas, and sidewalks that complied with ADA requirements.



### OWNER / CLIENT

City of Pontiac  
John Balint, PE  
(248) 758-3640

### PROJECT START - END

August 2005 - November 2010

### PROJECT COST

\$2,100,000.00  
Completed within budget

### SDA KEY PERSONNEL

Mike DeDecker, PS  
Cheryl Gregory, PE  
George Platz, PS  
Paul Wade, PE

### SDA PROJECT NO.

RB05-010

## **BRIDGE LOAD RATING ANALYSIS**

As part of the structure replacement, an analysis of various superstructure alternatives was performed. Various beam depths and cross sections and beam spacing were analyzed to determine an efficient beam to carry the necessary loads in accordance with current AASHTO specifications.

## **SPECIALTY WALLS & SLOPES**

Walls considered during the study were Mechanically Stabilize Earth (MSE) walls and standard concrete cast-in-place walls. Due to the short distance between parallel approach walls, the MSE walls were selected and designed resulting in approximately 400 feet of MSE walls of varying heights.

## **BRIDGE SAFETY INSPECTION**

Upon completion of the bridge construction, in accordance with AASHTO Manual for Bridge Evaluation and the FHWA Bridge Inspector's Reference Manual (BIRM), SDA performed an inspection of the structure and updated the Bridge Safety Inspection Reports (BSIR) and the Structure Inventory & Appraisal (SI&A) forms. Upon completion and review, the information was entered into the MDOT MBIS/MBRS website.

## Tienken Road Bridge over Stony Creek Rochester Hills, Michigan



The Tienken Road Bridge over Stony Creek is located adjacent to the Historic District of Rochester Hills, Michigan. The existing single-span bridge deck was severely deteriorated, requiring short term closures to perform emergency temporary repairs. The approach pavement and guard rail were also out of compliance with current standards.

**Spalding DeDecker Associates, Inc. (SDA)** was selected by the Road Commission for Oakland County (RCOC) to design the single span replacement structure. Due to the bridge's proximity to the Historic District, a significant amount of effort was dedicated to the Context Sensitive Solutions (CSS) process for ensuring that the local citizens understood the exact type, size, location and aesthetic enhancements for the proposed bridge.

SDA provided the following for RCOC:

- Topographical survey
- Geotechnical Investigation
- Bridge Study
- Hydraulic Analysis
- Bridge and Roadway Replacement/Reconstruction Design Plans
- Context Sensitive Solutions (CSS) Graphical interpretations of the proposed structure for public presentation
- Permit requests for MDEQ and SHPO
- Shop Drawing Review
- Project Management Plan



### OWNER / CLIENT

Road Commission for Oakland County  
Jeff O'Brien, PE  
(248) 645-2000

### PROJECT START - END

June 2008 – October 2010

### PROJECT COST

\$750,000.00

### SDA FEES

\$229,757

### SDA KEY PERSONNEL

Michael DeDecker, PS  
Cheryl Gregory, PE  
E. Patrick O'Rourke, PS  
George Platz, PS

### SDA PROJECT NO.

RB08-006

The topographical survey of the bridge, and its approaches, identified all of the physical elements around the bridge such as the trees, utilities, and local historic buildings near the bridge. Cross-sections of Stony Creek were taken upstream and downstream, as required for the hydraulic analysis and stream profile. Soil borings were taken at both abutments, and a geotechnical report was developed that included the soil condition investigations to select the best foundation system.

## **HYDRAULICS**

SDA completed a hydraulic analysis, including scour analysis for Stony Creek at this location, for the Michigan Department of Environmental Quality (MDEQ) permit application.

## **SHORT AND MEDIUM SPAN BRIDGES**

The existing bridge was designed for H15 loading and the proposed bridge was designed for HS20 (HL-93) loading. SDA investigated potential roadway geometric improvements, however, acquiring additional Right of Way and impacting the character of the historic district was not desirable to the local stakeholders. The structure was replaced with a precast three sided arch structure, supported by concrete abutments.

## **SPECIALTY WALLS AND SLOPES**

RCOC and the City of Rochester Hills worked together with the local stakeholders, including the Historic District Commission, to include a pedestrian pathway on the south side of the bridge, along with other CSS features such as concrete modular block retaining walls with steel culvert outlet openings.

## **SPECIAL FEATURES**

SDA developed photo-match graphics for the RCOC to use in its presentations to the City of Rochester Hills and the Historic District Commission. Providing these exhibits were extremely helpful in assisting the stakeholders in visualizing the recommended bridge design features, and reach consensus on subjective issues. To replicate features from the 1940's, the bridge railing used salvaged steel and posts from another bridge from that era, and featured colored and textured concrete surfaces. The successful result was the construction of a new bridge and pedestrian path across Stony Creek, with appropriate aesthetic character to compliment the quaint Historic District of the City of Rochester Hills.

## Silver Bell Road Bridge over Grand Trunk Western Railroad

Orion Township, Michigan

The Silver Bell Road Bridge project involved a complete replacement of the existing bridge and roadway approaches, over the Grand Trunk Western Railroad. The bridge is located on the main truck access route to the General Motors (GM) plant in Orion Township, and is critical to the plant operation. The new bridge replaces an old box beam structure which had deteriorated, and was closed to traffic in February 2011. It was very important to the local economy to replace the bridge in a timely manner. The Road Commission for Oakland County (RCOC) was able to quickly obtain funding for the new structure through a state grant. The project was constructed on time and within budget, at a construction cost of \$2,807,000. The new bridge carrying Silver Bell Road over the Grand Trunk Western Railroad, was open to traffic on June 30, 2011.



**Spalding DeDecker Associates, Inc. (SDA)** was responsible for:

- Topographical Survey
- Geotechnical Investigation
- Bridge and Roadway Reconstruction/Replacement Design Plans
- Bridge Load Rating
- Shop Drawing Review
- Project Management Plan

Project design work elements included the preparation of plans, specifications, and engineer's estimate for bridge replacement and roadway approach geometrics. Upon completion of final design, SDA also performed a bridge load rating analysis, and updated the BSIR and SI&A forms. SDA reviewed project shop drawings during the construction phase. SDA coordinated project specifics with RCOC, Oakland County Water Resources Commissioner (OCWRC), MDOT, local agencies, and utility companies.

### STRUCTURE SURVEY & ROAD SURVEY

SDA conducted the topographical survey of the bridge and its approaches, which included work along the Grand Trunk Western Railroad. The geotechnical investigation provided soil condition recommendations for the selection of the best foundation systems for the project.

### COMPLEX BRIDGE DESIGN / SHORT AND MEDIUM SPAN BRIDGES

A major obstacle for timely construction was the bridge's close proximity to a high voltage power line located along Silver Bell Road. That power line provides electricity to the GM plant, and is crucial for the plant operation. In order to eliminate power line shutdowns, a portion of Silver Bell Road had to be relocated six feet to the north, and all components of the bridge were designed to provide a safe clear distance to the power line and appropriate railroad clearances.

#### OWNER / CLIENT

Road Commission for Oakland County  
David Harrison  
(248) 645-2000 Ext 2282

#### PROJECT START - END

March 2010 – July 2011

#### PROJECT COST

\$2,807,000.00

#### SDA FEES

\$245,000.00

#### SDA KEY PERSONNEL

Michael DeDecker, PS  
Cheryl Gregory, PE  
George Platz, PS  
Paul Wade, PE

#### SDA PROJECT NO.

RB10-002

The new bridge is a 96.6-foot-long, 63.8-foot-wide structure, with four traffic lanes and an 8-foot-wide sidewalk. The superstructure consists of precast, prestressed concrete I-beams with a composite concrete deck.

#### **BRIDGE LOAD RATING ANALYSIS**

As part of the structure replacement, an analysis of various superstructure alternatives were performed. Various beam depths & cross sections and beam spacing were analyzed to determine an efficient beam to carry the necessary loads in accordance with current AASHTO specifications.

#### **RAILROAD BRIDGES**

The proposed realignment of the new structure necessitated that it also be raised and widened to comply with current AREMA clearance design standards, as well as compliance with railroad construction standards.

#### **SPECIALTY WALLS AND SLOPES**

Based on existing soil conditions and feasibility, the structure was supported by incorporating innovative Mechanically Stabilized Earth (MSE) abutments and wingwalls with architectural copings. The use of MSE walls ensured that global soil stability issues would not affect the project.

#### **BRIDGE SAFETY INSPECTIONS**

Upon completion of the bridge construction, in accordance with AASHTO Manual for Bridge Evaluation and the FHWA Bridge Inspector's Reference Manual (BIRM), SDA performed an inspection of the structure and updated the Bridge Safety Inspection Reports (BSIR) and the Structure Inventory & Appraisal (SI&A) forms. Upon completion and review, the information was entered into the MDOT MBIS/MBRS website.

#### **MAINTAINING TRAFFIC PLANS AND PROVISIONS**

The Silver Bell Road bridge over Grand Trunk Western Railroad was constructed under a full closure. Maintaining traffic plans included advanced warning signs and signed detour routes. Coordination with the Palace of Auburn Hills for event traffic and with MDOT regarding M-24 traffic was a critical component of the maintaining traffic scheme.

## Macomb Street Bridge Rehabilitation

Monroe, Michigan



The Macomb Street Bridge over the River Raisin is located near the historic Front Street corridor of the City of Monroe, Michigan. The existing three-span structure required replacement due to its severe deterioration. **Spalding DeDecker Associates, Inc. (SDA)** was selected by the City of Monroe to design the superstructure replacement, and rehabilitate the existing substructures into the project.

### OWNER / CLIENT

City of Monroe  
Patrick Lewis, PE  
Director of Engineering  
(734) 384-9126

### PROJECT START - END

February 2011 – December 2012

### PROJECT COST

\$2,000,000

### SDA KEY PERSONNEL

Mike DeDecker, PS  
Cheryl Gregory, PE

### SDA PROJECT NO.

RB11-002

### COMPLEX BRIDGE DESIGN / SHORT AND MEDIUM SPAN BRIDGES

The integral arched tee-beam flange/bridge deck deteriorated to the point that semi-permanent lane closures were required, due to the severity of the deck delaminations. The existing integral arched three-span structure, with a total length of approximately 230 feet, and comprised of continuous arched tee-beams, was replaced, and the structure was widened to conform to current design standards. The superstructure was replaced with prestressed concrete I-beams (PCI), and a composite reinforced concrete deck. Work on the approaches provided for pedestrian access and mobility improvements. Furthermore, intricate arched façade panels were incorporated into the superstructure, to replicate the original bridge's aesthetic characteristics. The existing skew of the structure required specific alignment of the beams, at the piers, due to the differing beam depths and bearings plates. Design was in conformance with current AASHTO specifications.

Due to the proximity of the historic corridor, a context-sensitive solution (CSS) approach was incorporated into the replacement of the aesthetic bridge barrier/railing. The existing bridge barrier system was replaced with the Texas Classic Type C411 FHWA crash tested barrier, to replicate the existing architectural features of the original barrier.

### BRIDGE PROJECT SCOPING

Prior to the replacement of the structure, a bridge inspection was performed to locate structural deficiencies associated with the bridge. A Report was prepared based on inspection findings, repair recommendations and cost estimates.

### BRIDGE LOAD RATING ANALYSIS

As part of the superstructure replacement, an analysis of the existing superstructure was performed to determine load carrying capacity. Furthermore, during the superstructure replacement alternatives review, various beam types were analyzed to determine an efficient beam depth and cross section, to carry the necessary loads in accordance with AASHTO.

### BRIDGE SAFETY INSPECTION

Upon completion of the bridge construction, in accordance with AASHTO Manual for Bridge Evaluation and the FHWA Bridge Inspector's Reference Manual (BIRM), SDA performed an inspection of the structure and updated the Bridge Safety Inspection Reports (BSIR) and the Structure Inventory & Appraisal (SI&A) forms. Upon completion and review, the information was entered into the MDOT MBIS/MBRS website.



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The following projects are just a small sample of the projects Spalding DeDecker Associates, Inc. (SDA) has completed throughout the past five years. Additional project profiles can be provided upon request.

## **General Architectural and/or Engineering Design**

MDOT Oakland TSC Transportation Service Center  
Pontiac Transportation Terminal  
Brandon School District – 2006 Bond Projects  
University of Michigan  
Oakland University  
16<sup>th</sup> District Courthouse

## MDOT Oakland Transportation Service Center

Pontiac, Michigan

### Spalding DeDecker Associates, Inc.

(SDA) provided site design for the Michigan Department of Transportation's new Oakland County Transportation Service Center (TSC) in the City of Pontiac. Successful coordination with the City, private utility companies, site contractor, and the Michigan Department of Management and Budget (MDMB) resulted in resolution of a variety of unexpected challenges including:



- SDA's discovery of substantial cuts of material from the site by the industrial subdivision developer after a survey of the site was already completed and design begun.
- SDA's discovery of fill material on-site placed by the industrial subdivision developer prior to the start of the TSC construction. Mitigating grading plans were issued to resolve.
- The need for substantial excavation of buried construction debris not found during the exploratory boring Phase I environmental study.
- Quantifying additional earth and debris excavation by additional survey measurements and 3-D CAD analysis to verify contractor's claims for payment.

Despite the challenges that were presented on this project, SDA mitigated their impacts to the schedule and project cost with the support of and coordination with the project architect, testing engineer, and MDMB staff.

### OWNER / CLIENT

Michigan Department of Management and Budget

Hobbs & Black Architects, Inc.

Robert Smith, AIA  
Executive Vice President  
(734) 663-4189

### PROJECT START - END

January 2008 - 2009

### PROJECT COST

\$3.5 Million

### SDA KEY PERSONNEL

Thomas Sovel, PE  
Keith Sirois  
Paul Kuplicki

### SDA PROJECT NO.

DV08-002

## Pontiac Transportation Terminal

Pontiac, Michigan

**Spalding DeDecker Associates, Inc. (SDA)** provided civil site design for the new intermodal transportation terminal on Woodward Avenue in the City of Pontiac. The design of site access, drives, parking, and building was extremely challenging due to the following critical design factors:

- Maintenance of the existing rail and bus service during all phases of construction
- Demolition of an existing tunnel immediately adjacent to the tracks and below the proposed building
- Determination of site and building geometry relative to street location, slope, and existing adjacent streets and curb cuts
- Limited record information for rights-of-way, utility records, and previous site demolition
- Coordination of interests and rights-of-way between Greyhound, Amtrak, the State of Michigan Dept. of Technology, Management & Budget, Dept. of Transportation, and the Bureau of Passenger Transportation
- Incorporation of sustainable design, security, and enhancement of the community
- Allowance for potential future expansion of both site and building facilities



Our goal was to provide a fully functioning site to meet the needs of the owner, Amtrak and Greyhound. Communication was the key as the site had many unknowns relative to previous site demolition, utility locations, and structural data on the existing tunnel that was to be demolished.

Demolition of the existing tunnel adjacent to the active rail and passenger boarding platform presented unique challenges but was completed without consequence to the rail operations, adjacent site infrastructure and construction safety. Critical Transportation Design Standards were considered and integrated into the design including considerations for boarding and deboarding requirements conforming to the Americans with Disabilities Act, efficient ingress & egress of arriving and departing buses, and protection of the building and patrons.

### OWNER / CLIENT

Michigan Department of Management and Budget

Mitchell & Mouat Architects, Inc.

John Mouat

Project Architect

(734) 662-6070

### PROJECT START - END

May 2008 – January 2010

### PROJECT COST

\$1.4 Million

### SDA KEY PERSONNEL

Thomas J. Sovel, P.E.

Jack Knowles, RLA

Terry Lindow

### SDA PROJECT NO.

NP09-056

## Brandon School District - 2006 Bond Projects

Ortonville, Michigan

**Spalding DeDecker Associates, Inc. (SDA)** was the Civil Engineer and Surveyor responsible for the design of more than \$6,000,000 in site improvements at various schools in the district:

### HIGH SCHOOL

Work at the 350,000 square foot high school included the following:

- Due to traffic flow problems on the site, a new 500-space student parking lot was constructed to segregate student and bus/parent drop-off traffic
- Complete reconstruction of the 2000'-long entrance drive to the school to improve ingress and egress to and from the site
- A new athletic field complex with entry plaza and concession buildings
- Cafeteria and gymnasium additions



### Environmental Considerations

Kearsley Creek cuts through the high school property, and is a high quality trout stream. Environmentalists had significant concerns about the effects the new parking lot would have on the quality of the stream – in particular the potential for raising the temperature of the creek and polluting it, thereby destroying the spawning habitat. SDA designed an innovative approach to address this issue, utilizing a



depressed, underground storage and percolation system to take advantage of the well draining soils in the area. The design allowed the one-year storm event, which is typically the most detrimental in terms of stormwater quality impacts, to percolate into the ground, thereby preventing discharge from reaching the stream.

In addition, SDA installed several Vortech treatment structures prior to other discharge points to the stream to further minimize impacts to the water course.

### OWNER / CLIENT

Brandon School District

French Associates, Inc.  
Paul Corneliussen  
(248) 656-1377

### PROJECT START - END

June 2006 - January 2010

### PROJECT COST

\$6,000,000.00

### SDA KEY PERSONNEL

Cheryl Gregory, PE  
Thomas J. Sovel, PE  
Dana Temerowski

### SDA PROJECT NO.

DV06-026A  
DV06-026B  
DV06-026C  
DV06-027  
DV06-028  
DV06-029  
DV07-005

## **NEW ELEMENTARY SCHOOL**

The new elementary school was constructed on an 80-acre site on Oakwood Road east of Hadley Road.

The project included the following:

- An 80,000 square foot school
- Parking areas and drop-off loops for cars and buses
- Athletic fields
- On-site sewage treatment system

## **Environmental Considerations**

There were several wetland pockets on the property. The site plan was laid out in an attempt to minimize impacts to these areas. A large open water wetland area remained untouched. The site utilized an open channel drainage system to the greatest extent feasible. The open channels were intended to be collection and infiltration zones, with the goal of recharging the groundwater system at the source in lieu of piping storm drainage directly to sensitive drainage outlets. These drainage areas were planted with water resistant plants and act as stormwater cleansing areas prior to discharge.

In addition, the ultimate outlet for the site is Mud Lake. SDA designed a stormwater quality basin and level spreader outlet to minimize contaminant and soil erosion impacts to the lake.

## **BURT ELEMENTARY, HARVEY SWANSON, BRANDON MIDDLE SCHOOL, & FLETCHER ELEMENTARY**

SDA provided plans for various improvements at all of these schools, including pavement rehabilitation plans, new parking lots and drop-off loops, and new additions.

## University of Michigan

Ann Arbor, Michigan

Spalding DeDecker Associates, Inc. (SDA) has completed several recent projects at the University of Michigan in Ann Arbor.

### Athletic Department Maintenance Facility (NP13-033)

Client: Niagara Murano Architecture – David Barczys (248) 646-5765

Project Start – End: October 2013 - present

Project Fee: \$41,500

SDA is currently providing site design for the new maintenance building. The project includes stormwater impacts requiring adherence to both UofM and City Standards, making for a complex stormwater system.

### Taubman Library Expansion (NP12-058)

Client: TMP Associates – Tim Casai (248) 338-4561

Project Start – End: July 2012 – January 2013

Project Fee: \$20,000

SDA completed site design for improvements around the Taubman building associated with extensive interior renovations.

### Wrestling Facility Watermain (DV09-019)

Client: TMP Associates – William Frederick (248) 338-4561

Project Start – End: April 2009 – August 2010

Project Fee: \$9,000

SDA completed utility design for new watermain extension to serve the new Wrestling Facility. The project required extensive coordination and permitting with the City of Ann Arbor, as well as interaction with OSEH and permitting by the MDEQ for the drain crossing on the property.

### Soccer Spectator and Team Facilities (DV09-017)

Client: TMP Associates – William Frederick (248) 338-4561

Project Start – End: April 2009 - 2011

Project Fee: \$19,500

SDA completed site design for new soccer stadium. Project included utility extensions to serve the new facilities, as well as stormwater management measures meeting UM's OSEH standards and the standards of the City of Ann Arbor.

### Crisler Arena Player Development Center (DV09-002)

Client: TMP Associates – William Frederick (248) 338-4561

Project Start – End: February 2009 - 2012

Project Fee: \$44,500

SDA completed design for site improvements associated with the addition to Crisler Arena. The project involved extensive impacts to existing parking areas and utility infrastructure on the site, as

#### OWNER / CLIENT

Varies

#### PROJECT FEE

Varies

#### SDA KEY PERSONNEL

Craig Bagby, CST III

Mike DeDecker, PS

George Platz, PS

Thomas Sovel, PE

Dana Temerowski

#### SDA PROJECT NO.

DV09-019

DV09-017

DV09-002

NP10-070

NP10-088

NP08-059

NP12-058

NP13-033



well as requirements to meet UM's OSEH standards for stormwater management.

## **Crisler Arena Expansion & Renovations – Phase 1 (NP10-070)**

Client: TMP Associates – William Frederick (248) 338-4561

Project Start – End: August 2010 - 2011

Project Fee: \$7,500

SDA assisted the design team in choosing a location for a new fire service line and coordinated new underground utilities using trenchless technologies.



## **Crisler Arena Expansion & Renovations – Phase 2 (NP10-088)**

Client: TMP Associates – William Frederick (248) 338-4561

Project Start – End: October 2010 – 2013

Project Fee: \$41,000

Currently in the Design Development Phase, SDA is assisting with determining strategies to accommodate additional storm water run-off in accordance with new UM OSEH requirements as well as complex elevation issues to match into existing grades with minimal disruption.

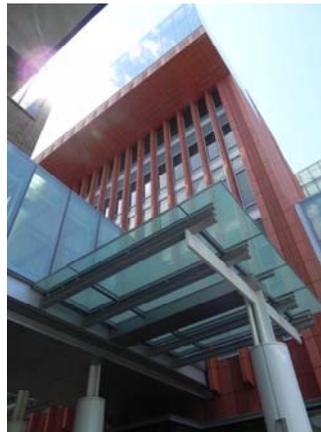
## **Pavement Management Pilot Program – North Campus (NP08-059)**

Client: University of Michigan – Dharmesh Joshi (734) 763-7665

Project Start – End: November 2008 – April 2009

Project Fee: \$6,100

SDA completed a pavement management evaluation and report for the North Campus. The project involved completing an inventory of site features including sidewalk, pathways, campus road pavements, and parking lot pavements. The project also included analyzing the collected data and developing a five-year work plan using CarteGraph PavementView Plus software.



## **Ross School of Business – Building Layout (SM06-129)**

Client: Bristol Steel and Conveyor Corp. – Mike Harsch / Oliver Ray (810) 658-9510

Project Start – End: January 2006 – January 2008

Project Fee: \$30,690

Provided anchor bolt survey, structural steel layout and plumb survey, and layout to tie structural steel to screen wall.



## **Computer Science Building – Building Layout (SM05-107)**

Client: TMP Associates – William Frederick

Project Start – End: September 2005 – May 2006

Project Fee: \$6,000

## Oakland University Civil Engineering & Surveying Services

Rochester, Michigan

### Oakland University Lot 32 Parking Structure, Rochester, MI

SDA performed site engineering design for new parking structure. The project includes design of a new campus road for ingress/egress to the new structure, re-routing of storm sewer, and interaction and permitting with the MDEQ for the wetland crossing on the property.

SDA Job # NP13-014. Fee: \$37,500

### Oakland University Upper Athletic Fields – Civil Engineering, Rochester, MI

SDA performed earthwork analysis and site utility design for the upper athletic field improvements. The project involves an analysis of cut/fill quantities between the existing and proposed surfaces to achieve a balanced site.

SDA Job # NP13-010. Fee: \$28,000

### Oakland University Lower Athletic Fields – Civil Engineering, Rochester, MI

SDA provided site design of the softball and baseball field improvements. The project involved designing a modular retaining wall, creating ADA compliant sidewalk paths for the spectator areas, as well as designing site drainage.

SDA Job # NP12-079. Fee: \$12,600.00

### Oakland University, Oakland Center Expansion, Rochester, MI

In May 2002, Spalding DeDecker Associates, Inc. (SDA) provided complete topographical survey to Duce Simmons Architects for the purposes of engineering design for expansion of this gathering area.

SDA Job # SM02-085. Fee: \$9,500.00

In November 2002, SDA provided control, benchmarks and layout staking to JM Olson Construction for the purpose of constructing this new addition.

SDA Job # SM02-174. Fee: \$4,300.00

In August 2003, SDA provided additional survey staking to JM Olson Construction on this project.

SDA Job # SM03-115. Fee: \$1,500.00



#### OWNER / CLIENT

Oakland University

Client varies

#### PROJECT START - END

1996-Present

#### PROJECT CONSTRUCTION COST

\$ varies

#### SDA KEY PERSONNEL

George Platz, PS

Thomas Sovel, PE

#### SDA PROJECT NO.

NP13-014

NP13-010

NP12-079

SM02-085

SM02-174

SM03-115

SM02-146

SM01-084

SM02-049

SM00-071

SM01-104

SM97-121

SM99-008

SM96-098

SM96-115

## **Oakland University, Soccer Stadium, Rochester, MI**

In September 2002, SDA provided complete topographical survey to TMP Architects for the purpose of engineering design.

SDA Job # SM02-146. Fee: \$8,900.00.



## **Oakland University, Parking Structure, Rochester, MI**

In August 2001, SDA provided complete topographical survey to BEI for the purpose of engineering design of this parking structure.

SDA Job # SM01-084. Fee: \$3,500.00

In April 2002 SDA provided control, benchmarks and layout staking to JM Olson Construction for the purpose of constructing this new parking structure.

SDA Job # SM02-049. Fee: \$3,500.00



## **Oakland University, School of Education & Human Services, Rochester, MI**

In August 2001, SDA provided complete topographical survey to Janet Hepburn at Oakland University for the purpose of engineering design for this SEHS Building Project.

SDA Job # SM00-071. Fee: \$15,200.00



## **Oakland University, Student Housing, Rochester, MI**

In September 2001, SDA provided control, benchmarks, layout staking and as-builts to B&V Construction for the purpose of constructing this new housing project.

SDA Job # SM01-104. Fee: \$40,000.00



## **Oakland University, Business School, Rochester, MI**

In October 1997, SDA provided complete topographical survey to Albert Kahn Architects for the purpose of engineering design of this new building.

SDA Job # SM97-121. Fee: \$20,000.00

In February 1999, SDA provided control, benchmarks and layout staking to Barton Malow for the purpose of this new building construction.

SDA Job # SM99-008. Fee: \$3,300.00



## **Oakland University, Lepley Sports Center, Rochester, MI**

In September 1996, SDA provided control, benchmarks, and layout staking to Barton Malow for the proposed building addition.

SDA Job # SM96-098. Fee: \$7,300.00

In October 1996, SDA provided staking to WPM Inc. for the installation of associated underground utilities.

SDA Job # SM96-115. Fee: \$10,325.00



## 16<sup>th</sup> District Courthouse

Livonia, Michigan

The 16<sup>th</sup> District Court, located in Livonia's Civic Center complex, improves the functionality of the court for all users. The court has two full courtrooms, one magistrate hearing room, court clerk support space, and an active probation department. The courtroom technology is state of the art. **Spalding DeDecker Associates, Inc. (SDA)** provided civil engineering and surveying services for this new courthouse. The project includes the construction of the 40,000 square foot building plus a public parking lot as well as a secured lot for police and court personnel.



### OWNER / CLIENT

French Associates, Inc.  
Dale Jerome, AIA  
President  
(248) 656-1377

### PROJECT START - END

February 2008 - April 2010

### PROJECT COST

\$12,000,000

### SDA KEY PERSONNEL

Terry Lindow  
Thomas J. Sovel, PE

### SDA PROJECT NO.

DV08-003



# Project Types and Services Offered

The following projects are just a small sample of the projects Spalding DeDecker Associates, Inc. (SDA) has completed throughout the past five years. Additional project profiles can be provided upon request.

## **Landscape Architecture**

Pearl Albert Green Park

Ann Arbor Road Corridor Streetscape Enhancements, Phase 2

Macomb Township Veterans Plaza

Avon Road at Livernois Road – Intersection Enhancement



SPALDING DEDECKER ASSOCIATES, INC.

Engineering Consultants  
Infrastructure | Land Development | Surveying | Landscape Architecture  
(800) 598-1600 | [www.sda-eng.com](http://www.sda-eng.com)

Department of Technology, Management & Budget  
General Professional Design Services  
PR14-085

## Pearl Albert Green Park Bedford Township, Michigan



The Downtown Development Authority of Bedford Township (DDA) sought to improve an existing, highly visible, unsightly storm water detention area, located near the intersection of Secor and Sterns Roads. This area has become the commercial core for the Township citizens, and the detention facility was a blemish that required new ideas. Spalding DeDecker Associates, Inc. (SDA) submitted a concept

plan to the DDA, was selected for this project based upon that preliminary plan and their forward thinking.

The SDA design provided a **context sensitive solution** by re-shaping the existing storm water detention basin and converting it into a permanent water feature. A useable park area was envisioned to be a place for gathering and includes a central walkway with a bridge over the pond, a gazebo shelter for staging events, benches for viewing, and grassy open areas for casual groups. As the design for the park developed, sustainable design components became a prominent feature. These elements include a wind powered turbine, which partially supplies the electrical demands for the pathway lights, water fountains, and irrigation system. Other sustainable design features include LED lighting, permeable paving,



**native plantings**, and other **native** plant material to facilitate storm water cleansing. **SDA's scope of work included site development, streetscape elements, site grading, project layout, plant selections, site engineering, drainage design, construction estimating and ADA compliance.**



### OWNER / CLIENT

Bedford Township DDA  
Bedford Township  
P.O. Box H  
8100 Jackman Road  
Temperance, MI 48182  
(734) 847-6791

### PROJECT START - END

2007 - 2009

### PROJECT COST

\$350,000

### ENGINEERING FEE

\$25,000

### SDA KEY PERSONNEL

M. Jack Knowles, RLA

### PROJECT NO.

S002590.00

## Ann Arbor Road Corridor Streetscape Enhancements, Phase 2

Plymouth Township, Michigan



In 2005, Plymouth Township Downtown Development Authority (DDA) commenced work on the initial phase of the Ann Arbor Road corridor improvement



project. Since that time, the expansion of the improvement project has been limited to scattered individual properties that have been improved over time.

In early 2012 the DDA decided to proceed with the design for the remainder of the project and brought in Spalding DeDecker Associates, Inc. (SDA) as the prime consultant / landscape architect to complete the remaining 1.5 miles of corridor design.



The design of the original project was carefully evaluated to determine which aspects / features were most successful and what others may need to be re-evaluated. The successful components were then woven into the new design, and provided continuity of the design.

The 2012 enhancement project is scheduled to begin construction in the Spring of 2013 and will include key enhancement features such as brick piers with ornamental fencing, colored and patterned concrete pedestrian walks and barrier free access ramps, roadway 'verge', intersection / corner features, coordinated landscape plantings including street trees, flowering trees, ornamental grasses, and flowering perennials.

The final solution will provide a significant aesthetic improvement and continuity for the Plymouth Township businesses along this corridor.



### OWNER / CLIENT

Plymouth Township  
Downtown Development Authority  
Richard Reaume, Supervisor  
(734) 354-3201  
reaume@plymouthtwp.org

### PROJECT START - END

June 2012 - ongoing

### PROJECT COST

Estimated \$750,000

### ENGINEERING FEE

\$46,000

### SDA KEY PERSONNEL

M. Jack Knowles, RLA  
Kristen M. Whise, RLA, LEED AP

### PROJECT NO.

PL12-002

## Macomb Township Veterans Plaza Macomb Township, Michigan



The Macomb Township Community Foundation spearheaded the concept to develop a memorial to honor and remember all active members and veterans of the armed forces, and first responder organizations, for their dedication and service to the Macomb community and our country.

### Spalding DeDecker Associates, Inc. (SDA)

answered the call and created a design that includes a large, symmetrical

brick plaza on axis with the Township Hall entrance. Each branch of the Armed Forces and each First Responder group is honored individually with their symbol etched into large dark granite 'tablets', located at the sides of the plaza. The tablets are linked together by an evergreen hedge symbolizing the connection of the services, and the combined effort of all who serve to protect the citizens of our country. Contrasting grid lines running through the brick paving symbolize the interconnection of all who served.

Flagpoles are located at the front of the plaza in a circular landscaped area, bounded by a curved bench focused inward, providing a place for visitors to sit and contemplate. At the outer edge of the plaza informal groups of flowering trees provide a sense of visual enclosure and seasonal color.



**SDA's responsibilities included site development, site grading, project layout, site engineering, drainage design, plant material selection and cost estimating.** Bounded by three roadways and the existing Township Municipal Building, detail grades were required for the entire acre of the site to assure positive drainage and proper transitions to existing pavement. SDA took into account sight requirements, maintenance operations, ADA compliance, and hardiness for an urban environment when selecting plantings adjacent to both pedestrian and vehicular travel ways. Streetscape elements incorporated into the design included: special paving, lighting, seating, litter receptacles, memorial tablets and flagpoles.



### OWNER / CLIENT

Macomb Township  
Community Foundation  
Michael D'Agostini, Director  
(810) 560-4220  
miked@ldagostini.com

### PROJECT START - END

December 2009 - November 2010

### PROJECT COST

Estimated \$250,000  
The majority of the construction work was performed at reduced costs (donations)

### ENGINEERING FEE

Donated  
(\$25,000)

### SDA KEY PERSONNEL

Craig Bagby, CST III  
John DeDecker, CST III  
M. Jack Knowles, RLA  
Fernando Munoz  
Kris Whise, RLA LEED AP

### PROJECT NO.

PR09-380

## Avon Road at Livernois Road – Intersection Enhancement Rochester Hills, Michigan

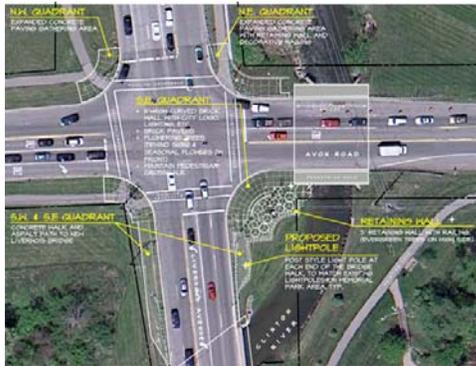
**Spalding DeDecker Associates, Inc. (SDA)** assisted the City of Rochester Hills in obtaining a Transportation Enhancement Grant, developing design plans, and providing construction engineering for aesthetic and functional improvements to all four quadrants of the intersection of Avon Road with Livernois Avenue.

SDA began by working with City staff to envision a “signature” element within the intersection, to be developed in coordination with the replacement of two adjacent bridges. The flow of pedestrians in the area was to be drastically altered by the proposed structures, so **revisions to the sidewalk and non-motorized pathways** needed to be considered. SDA developed exhibits and assisted the City in obtaining a grant of \$207,000 for improving and beautifying the non-motorized facilities in each quadrant. The highlight of these four quadrants was the development of a pedestrian scale gathering area acting as an extension of the nearby Veterans Memorial Pointe park.



One of the primary features of this space is a low, curved seat-wall which was designed to invite pedestrians to rest and enjoy the view of the adjacent Clinton River. The seat-wall doubles as a planter providing an area for flowering trees and other colorful plant materials. Visual obstructions to the river view have been minimized through the selection of a post and horizontal cable railing system on the retaining wall. Deciduous trees provide overhead canopy and shade, and decorative surface materials add to the relaxed atmosphere by this busy intersection. Pedestrian lighting was extended from the adjacent park to enhance visibility and to provide a sense of continuity. The City’s logo is sandblasted onto each end of the wall, to reinforce the branding theme which is present throughout the City.

Work included **plan preparation in accordance with MDOT standards, special provision preparations** as required, **plant material selections** based upon ability to survive in **urban environments**, replacement of all sidewalk ramps to current **ADA compliance**, irrigation system connections and **cost estimating**.



One of the primary features of this space is a low, curved seat-wall which was designed to invite pedestrians to rest and enjoy the view of the adjacent Clinton River. The seat-wall doubles as a planter providing an area for flowering trees and other colorful plant materials. Visual obstructions to the river view have been minimized through the selection of a post and horizontal cable railing system on the retaining wall. Deciduous trees provide overhead canopy and shade, and decorative surface materials add to the relaxed atmosphere by this busy intersection. Pedestrian lighting was extended from the adjacent park to enhance visibility and to provide a sense of continuity. The City’s logo is sandblasted onto each end of the wall, to reinforce the branding theme which is present throughout the City.



### OWNER / CLIENT

City of Rochester Hills  
Paul Davis, PE  
City Engineer  
(248) 656-4640  
davis@rochesterhills.org

### PROJECT START - END

August 2011 – May 2013

### PROJECT COST

\$300,000

### ENGINEERING FEE

\$38,740

### SDA KEY PERSONNEL

M. Jack Knowles, RLA  
Kris Whise, RLA, LEED AP  
Cheryl Gregory, PE  
Eric Kipp, PE

### SDA PROJECT NO.

RB11-008



# Project Types and Services Offered

The following projects are just a small sample of the projects Spalding DeDecker Associates, Inc. (SDA) has completed throughout the past five years. Additional project profiles can be provided upon request.

## **Parking and Paving**

Oakland University Civil Engineering & Surveying Services

University of Toledo Pavement Management Program

Eastern Michigan University Pavement Management Program

Pavement Management Programs – K-12 School Districts

## University of Toledo Pavement Management Program

Toledo, Ohio

**Spalding DeDecker Associates, Inc. (SDA)** was contracted by the University of Toledo to evaluate pavements maintained by the University, provide recommendations for repair improvements, and develop a network-wide five-year work plan. Cartégraph PavementView Plus was used in the development of the five-year work plan. The project included the following elements:

### **Pavement Inventory**

SDA performed a network level inspection of the facility's pavement to determine pavement area, type, and basic condition and to select pavements to repair. The inspection included:

- A visual inspection of pavement conditions, including sidewalks
- Obtaining pavement cores, base samples and subgrade samples for analysis where existing data was unavailable
- Rating existing pavement conditions using the Pavement Surface Evaluation and Rating (PASER) System which is based on a visual examination and rating of pavement conditions
- Noted areas of poor drainage
- Noted general conditions of ADA ramps and surfaces and identified situations that may require further action

### **Evaluation and Report**

Following the field inventory, SDA processed the data into both tabular and graphical summations of the collected information including:

- Preparation of exhibits using ArcViewGIS software linked to the pavement database to identify the various pavement sections and graphically present the use, priority, pavement type, and condition of each section
- Presentation of site photos of representative sections and ratings
- Used Cartégraph PavementView Plus to provide an analysis of the pavement Overall Condition Index (OCI), use, priority and classification for each segment area
- Developed repair costs based on current conditions
- Developed replacement costs for each section based on terminal conditions
- Provided a five-year backlog projection to show the results if no or insufficient maintenance, rehabilitation, or reconditioning is performed. The network OCI over this period was also determined.
- Prepared a report summarizing findings and general recommended repairs with relative costs

### **OWNER / CLIENT**

University of Toledo  
Steve Wise  
(419) 530-1023

### **PROJECT START - END**

February 2011 - 2011

### **ENGINEERING FEE**

\$10,000

### **SDA KEY PERSONNEL**

Jake Ensley, PE  
Thomas Sovel, PE

### **SDA PROJECT NO.**

NP11-015

## Oakland University Civil Engineering & Surveying Services

Rochester, Michigan

### Oakland University Lot 32 Parking Structure, Rochester, MI

SDA performed site engineering design for new parking structure. The project includes design of a new campus road for ingress/egress to the new structure, re-routing of storm sewer, and interaction and permitting with the MDEQ for the wetland crossing on the property.

SDA Job # NP13-014. Fee: \$37,500

### Oakland University Upper Athletic Fields – Civil Engineering, Rochester, MI

SDA performed earthwork analysis and site utility design for the upper athletic field improvements. The project involves an analysis of cut/fill quantities between the existing and proposed surfaces to achieve a balanced site.

SDA Job # NP13-010. Fee: \$28,000

### Oakland University Lower Athletic Fields – Civil Engineering, Rochester, MI

SDA provided site design of the softball and baseball field improvements. The project involved designing a modular retaining wall, creating ADA compliant sidewalk paths for the spectator areas, as well as designing site drainage.

SDA Job # NP12-079. Fee: \$12,600.00

### Oakland University, Oakland Center Expansion, Rochester, MI

In May 2002, Spalding DeDecker Associates, Inc. (SDA) provided complete topographical survey to Duce Simmons Architects for the purposes of engineering design for expansion of this gathering area.

SDA Job # SM02-085. Fee: \$9,500.00

In November 2002, SDA provided control, benchmarks and layout staking to JM Olson Construction for the purpose of constructing this new addition.

SDA Job # SM02-174. Fee: \$4,300.00

In August 2003, SDA provided additional survey staking to JM Olson Construction on this project.

SDA Job # SM03-115. Fee: \$1,500.00



#### OWNER / CLIENT

Oakland University

Client varies

#### PROJECT START - END

1996-Present

#### PROJECT CONSTRUCTION COST

\$ varies

#### SDA KEY PERSONNEL

George Platz, PS

Thomas Sovel, PE

#### SDA PROJECT NO.

NP13-014

NP13-010

NP12-079

SM02-085

SM02-174

SM03-115

SM02-146

SM01-084

SM02-049

SM00-071

SM01-104

SM97-121

SM99-008

SM96-098

SM96-115

## **Oakland University, Soccer Stadium, Rochester, MI**

In September 2002, SDA provided complete topographical survey to TMP Architects for the purpose of engineering design.

SDA Job # SM02-146. Fee: \$8,900.00.



## **Oakland University, Parking Structure, Rochester, MI**

In August 2001, SDA provided complete topographical survey to BEI for the purpose of engineering design of this parking structure.

SDA Job # SM01-084. Fee: \$3,500.00

In April 2002 SDA provided control, benchmarks and layout staking to JM Olson Construction for the purpose of constructing this new parking structure.

SDA Job # SM02-049. Fee: \$3,500.00



## **Oakland University, School of Education & Human Services, Rochester, MI**

In August 2001, SDA provided complete topographical survey to Janet Hepburn at Oakland University for the purpose of engineering design for this SEHS Building Project.

SDA Job # SM00-071. Fee: \$15,200.00



## **Oakland University, Student Housing, Rochester, MI**

In September 2001, SDA provided control, benchmarks, layout staking and as-builts to B&V Construction for the purpose of constructing this new housing project.

SDA Job # SM01-104. Fee: \$40,000.00



## **Oakland University, Business School, Rochester, MI**

In October 1997, SDA provided complete topographical survey to Albert Kahn Architects for the purpose of engineering design of this new building.

SDA Job # SM97-121. Fee: \$20,000.00



In February 1999, SDA provided control, benchmarks and layout staking to Barton Malow for the purpose of this new building construction.

SDA Job # SM99-008. Fee: \$3,300.00

## **Oakland University, Lepley Sports Center, Rochester, MI**

In September 1996, SDA provided control, benchmarks, and layout staking to Barton Malow for the proposed building addition.

SDA Job # SM96-098. Fee: \$7,300.00

In October 1996, SDA provided staking to WPM Inc. for the installation of associated underground utilities.

SDA Job # SM96-115. Fee: \$10,325.00



## Eastern Michigan University Pavement Management Program

Ypsilanti, Michigan

Spalding DeDecker Associates, Inc. (SDA) developed a campus-wide pavement management program, which included pavement inventory and evaluation, for the Eastern Michigan University (EMU) campus. EMU desired to determine their current maintenance plan deficiencies; determine where to focus repairs; and determine how much money to budget for the plan.

SDA's role:

- Performed a campus-wide pavement assessment
- Utilized proven techniques to prioritize problem areas
- Provided cost estimates anticipated for annual maintenance
- Developed a long-term pavement management program

The project consisted of onsite inspection and documentation of the PASER ratings for all campus pavement; utilizing pavement management software to input inventory information and analyze data; creating a ten-year repair plan program; and developing the pavement management report.

The pavement management program included the following:

- Condition Assessment
- Long-Range Repair Plans
- Condition Tracking
- Backlog Tracking

### OWNER / CLIENT

Eastern Michigan University  
Sean Braden  
(734) 487-1200

### PROJECT START - END

June 2012 – May 2013

### ENGINEERING FEE

\$19,500

### SDA KEY PERSONNEL

Jake Ensley, PE  
Thomas Sovel, PE

### SDA PROJECT NO.

NP12-055

## Pavement Management Programs – K-12 School Districts

- **Avondale Schools**
- **Clarkston Community Schools**
- **Warren Woods School District**
- **Swartz Creek Community Schools**

**Spalding DeDecker Associates, Inc. (SDA)** assisted these Districts in developing a pavement management program. The scope of services included an evaluation of the pavement at all District facilities, utilization of pavement management software to develop long range repair plans and provide recommendations for repair improvements. The scope included the following elements:

### **Pavement Inventory**

SDA performed a network level inspection of the pavement at all district facilities to determine pavement area, type, and basic condition. The inspection included:

- A visual inspection of pavement conditions, including sidewalks
- Obtaining pavement cores, base samples and subgrade samples for analysis where existing data was unavailable
- Rating existing pavement conditions using the Pavement Surface Evaluation and Rating (PASER) System which is based on a visual examination of pavement conditions
- Noted areas of poor drainage
- Noted general conditions of ADA ramps and surfaces and identified situations that may require further action

### **Evaluation and Report**

Following the field inventory, SDA processed the data into both tabular and graphical summations of the collected information including:

- Preparation of exhibits using ArcViewGIS software linked to the pavement database to identify the various pavement sections and graphically present the use, priority, pavement type, and condition of each section
- Presentation of site photos of representative sections and ratings
- Used Cartégraph PavementView Plus to provide an analysis of the pavement Overall Condition Index (OCI), use, priority and classification for each segment area
- Developed repair costs based on current conditions
- Developed replacement costs for each section based on terminal conditions
- Provided a five-year backlog projection to show the results if no or insufficient maintenance, rehabilitation, or reconditioning is performed. The network OCI over this period was also determined.
- Prepared a report summarizing findings and general recommended repairs with relative costs

### **OWNER / CLIENT**

Various Districts  
(contact information can be provided if requested)

### **ENGINEERING FEES**

\$20,000 - \$30,000

### **SDA KEY PERSONNEL**

Jake Ensley, PE  
Thomas Sovel, PE

### **SDA PROJECT NO.**

various



# Project Types and Services Offered

The following projects are just a small sample of the projects Spalding DeDecker Associates, Inc. (SDA) has completed throughout the past five years. Additional project profiles can be provided upon request.

## **Site Surveying**

William Beaumont Hospital

Professional Surveying Services for Detroit Public Schools

Cranbrook Educational Community

Cooley Law School Layout

As-Needed Surveying for Detroit Recreation Department

## William Beaumont Hospital

Royal Oak, Michigan

**Spalding DeDecker Associates, Inc. (SDA)** was responsible for mapping a 15-acre portion of the Royal Oak Campus for the relocation of existing infrastructure to allow for the design and construction of a \$70 million dollar Cancer Treatment Facility.



The project included a boundary survey within the area of construction. SDA worked with the Facilities Manager and utility providers to locate the existing utilities as accurately as possible prior to the new design. The final survey was utilized by SDA's engineers to design the relocation of the site utilities, roadways, and parking lots.

Once the design plans were approved, SDA performed the construction staking for the relocated utilities, roadways, and parking lots. The existing open storm detention basin was replaced with an underground system. The relocated roadways and parking lots were then constructed over the new underground storm detention basin.

### SPECIAL FEATURES

The project challenges included maintaining use of the existing infrastructure throughout the new construction as the hospital could not be shut down for even a moment. SDA had survey crews available for day and night work on this project.

#### OWNER / CLIENT

Beaumont Services Company  
Jared Kopydlowski  
(248) 293-1010

#### PROJECT START - END

September 2008 - December 2009

#### PROJECT COST

Survey Fee \$ 77,600

#### SDA KEY PERSONNEL

George Platz, PS  
Keith Sirois

#### SDA PROJECT NO.

DV08-026  
Various

## Professional Surveying Services for Detroit Public Schools

Detroit, Michigan

**Spalding DeDecker Associates, Inc. (SDA)** has provided professional surveying services for the Detroit Public Schools since 2001. These services include topographic surveys, boundary surveys, construction layout, and record documents (as-builts).

### Topographic Surveys

Topographic surveys typically include mapping the existing features on-site, as well as 50 feet off-site, and were delivered in the Detroit Public Schools AutoCAD layering and symbol format. These surveys are used for future engineering design and include:

- Spot elevations (typically at a 50' grid) sufficient to produce 1' contours, including elevations at all major grade breaks, ditches, and hills
- Elevations along the edge of pavement or curbing
- A first floor elevation for existing on-site buildings
- Establishing two site benchmarks for each site
- Contact utility authorities to reveal the location of underground utilities affecting the site and to obtain all available record utility plans
- Locate and measure existing utility structures and obtain invert pipe elevations where possible
- Vegetation located as follows: edges of groups of trees and shrubs and individual trees 8 inches and larger in diameter

Topographical surveys were performed for Priest Elementary School, Emerson Elementary School, Fine and Performing Arts High School, Bates Academy, Connor/Gratiot Proposed Bus Garage Site, Keidan Special Education School, Blackwell Adult Education Center, Senator Lot Survey, Seldon/Second Site, Edmonson Elementary School, Southwestern High School, Precision Auto Site, Total Armor Site, Greenfield Union Elementary School, Garvey Academy, Beckham Academy, and Finney High School.

### Boundary Surveys

Boundary surveys typically include field-locating enough property controlling information to graphically show property lines on the topographic survey. Determination of property line location is based upon the furnished description. A copy of the warranty deed or title policy is requested upon notice to proceed. Boundary surveys were performed for Fine and Performing Arts High School, Bates Academy, Gateway Industries Center, Senator Lot, Wilbur Wright, Southwestern High School, Precision Auto Site, Total Armor Site, Finney High School, Beckham Academy, Garvey Academy, and the Seldon/Second Site.

### Construction Layout

Construction Layout includes layout of proposed features such as new utilities, building additions, and new pavement. Construction layout was provided for the Speech and Hearing Clinic, Greenfield Union Parking lot, Beckham Academy, and Garvey Academy.

### Record Documents

Record Documents or As-Builts consist of locating constructed features such as sanitary sewer,

#### OWNER / CLIENT

Detroit Public Schools  
Kevin White  
Director of Procurement  
313-873-6025

#### PROJECT START - END

2001 – 2011

#### PROJECT COST

Survey Fees \$ 267,000

#### SDA KEY PERSONNEL

Catherine DeDecker, PS  
Michael DeDecker, PS  
George Platz, PS  
Keith Sirois

#### SDA PROJECT NO.

SM01-003 SM01-004  
SM01-056 SM01-095  
SM02-041 SM02-121  
SM02-122 SM02-148  
SM03-008 SM03-011  
SM03-023 SM03-138  
SM03-141 SM04-065  
SM05-045 SM05-088  
SM06-011 SM06-099  
SM07-031 SM10-031  
SM10-032 SM10-033

water main, storm sewer, building additions, and pavement. Pipe invert elevations of the newly constructed utilities are also obtained. The original Site Plan is red-lined or marked up with the constructed information, making it easy to compare proposed to constructed information. Record Documents were provided for Marquette Early Childhood Center, Golightly Early Childhood Center, Greenfield Union Early Childhood Center, Emerson Early Childhood Center, Priest Early Childhood Center, and Columbian Early Childhood Center.

## Cranbrook Educational Community Bloomfield, Michigan



### OWNER / CLIENT

Cranbrook Educational Community  
Jean Claude Azar  
Managing Architect  
(248) 645-3617

### PROJECT START - END

1996 - Present

### SDA KEY PERSONNEL

Mike DeDecker, PS  
Thomas J. Sovel, PE

Cranbrook describes themselves as:

"Founded by Detroit philanthropists George and Ellen Booth in 1904, Cranbrook's campus features the work of world-renowned architects such as Eliel Saarinen, Albert Kahn, Steven Holl, Tod Williams and Billie Tsien, Rafael Moneo, Peter Rose and sculptors Carl Milles, Marshall Fredericks and others. Critics have called Cranbrook 'the most enchanted and enchanting setting in America' and in 1989, it was designated a National Historic Landmark."

Spalding DeDecker Associates, Inc. has been providing surveying and civil engineering services for Cranbrook since 1995.

SDA has provided civil engineering design services on the following projects:

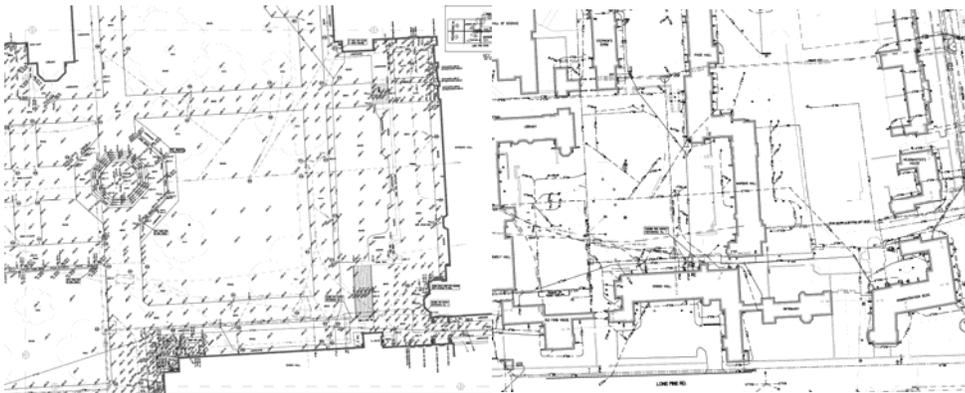
- Vaughn Boys Middle School Addition
- Fiber Optic Lines
- Valley Way Road and Maintenance Yard Improvements
- Art Museum and Library Expansion

SDA has provided surveying services for Cranbrook on over sixty-five separate tasks, ranging in size from small topographical surveys of parking lots to larger areas exceeding forty-acres in size and encompassing several different buildings, parking areas, ponds, nature preserve, athletic fields and other features. Our work was utilized both in-house by Cranbrook as well as by SDA design staff, in addition to other projects that included multi-discipline design teams consisting of architects and other consultants that relied upon our topographical surveys as the backbone of their successful design projects.

SDA worked closely with Cranbrook to assure that each project would fit seamlessly into their Geographic Information System (GIS). Cranbrook had created a base map for the overall campus using aerial mapping technology. SDA established a horizontal and vertical control network on campus to assure that each piece of our mapping would drop into place flawlessly. We adapted our CAD standards to assure that our symbols, line-types, and methodologies would coincide precisely with the client's system.

One of the challenges of surveying on the campus is trying to retrace the underground web of utilities that have been installed over the last century. One of the primary utility maps utilized as reference was produced in the 1920's, measures nearly ten-feet in length, is mounted on plywood and was stored in one of the building's basements. We relied upon records such as this along with utility records prepared for the campus in the 1970's to reconcile utility locations with our field-measurements. Using the records, precise field-measurements, and a lot of interpretation, we updated Cranbrook's utility maps into a modern and precise CAD format.

Other unique projects included surveying the Quad Area for a reconstruction project that sought to return the area to its historical roots. Originally featuring brick pavers consistent with the construction techniques of the 1920's era, this area was reconstructed at one point using a more modern style of setting the pavers. The architect relied upon historical photos of the area, along with our survey that mapped the outline of the paved areas to a tolerance and level of detail of 1/8 inch. Knowing the location of every joint was crucial to the designer, who returned the area to the vision of the original architect.



## Cooley Law School Layout

Auburn Hills, Michigan

Construction staking of a site renovation to convert an office building into the Cooley Law School was needed. Improvements included additional student parking lots and a new wing that doubled the size of the existing facility.

**Spalding DeDecker Associates, Inc. (SDA)** was responsible for staking the earthwork, utilities, paving, and structural steel. The project was built in phases so the school could remain open while the site improvements were being constructed. Once the project was completed, SDA performed an as-built survey of the site utilities and grading. Improvements included additional parking lots of student parking and a new wing that doubled the size of the existing facility.



### SPECIAL FEATURES

A unique challenge of this project was the staking of the Americans with Disabilities Act (ADA) compliant route from the parking lot to the building entrance. The significant grade change and distance from the parking lot to the school doors required detailed staking and coordination with the concrete crew to properly install the route.

Another unique facet involved SDA working directly with the Contractor to establish controls for their machine-operated GPS that was utilized to mass grade the site. Periodically, SDA provided staking that was used to check the accuracy of the GPS. Our checking identified a consistent small error in the offset of their equipment, which allowed them to make the necessary corrections.

### OWNER / CLIENT

Site Development, Inc.  
Scott Koss  
(248) 583-1200

### PROJECT START - END

March 2008 - January 2009

### PROJECT COST

\$41,000.00

### SDA KEY PERSONNEL

Steve Brown, CST II  
Ted Judson  
Jaime Pabst, CST III  
George Platz, PS  
Keith Sirois

### SDA PROJECT NO.

SM08-010

## As-Needed Surveying for Detroit Recreation Department

Detroit, Michigan

Spalding DeDecker Associates, Inc. (SDA) provided survey work under an as-needed contract with Detroit Recreation Department (DRD). SDA's role has included developing scope of work with DRD, preparing cost proposals for each task, overseeing work by field crews, CAD draftsmen, and project surveyors, and performing quality control and assurance. Projects completed include:

- Belle Isle - Comfort Stations
- Belle Isle - Sunset Pointe
- Butler Playfield - Topographic Survey
- Bieniek Playground
- Butzel Playfield - 2007 Renovations
- Chandler Park Golf Course
- Calimera Playground - Topo Survey
- Comstock Playfield - Topographic Survey
- Corrigan Playground
- Crowell Rec. Center - Topo Survey
- Eastern Market
- Eastern Market - Shed No. 2
- Fargo-Fenton Playground
- Heilmann Playfield - Topo Survey
- Hyde Park - Topo Survey
- Kern Playground
- Krainz Park
- Laker Playground
- Lipke Playground - Building Underdrain System Plan
- Littlefield Playfield
- Mallett Playground - Construction Layout
- Milan Playfield
- Romanowski Park
- Rouge Park Firing Range
- Rouge River Park-In Town Camp
- Rouge Park - Food Network Lease
- Rouge Park - Scout's Hollow
- Ryan Playground
- Sawyer Playground
- St. Jean Boat Launch - Topo Survey
- Stoepel No. 1 - Construction Layout
- Tolan - Topo Survey and Boundary Lines
- Weiss Playlot
- Wingle Playlot

### OWNER / CLIENT

City of Detroit Recreation Department

### PROJECT START - END

2004 - Present

### PROJECT COST

Various

### SDA KEY PERSONNEL

Michael DeDecker, PS

George Platz, PS



# Project Types and Services Offered

The following projects are just a small sample of the projects Spalding DeDecker Associates, Inc. (SDA) has completed throughout the past five years. Additional project profiles can be provided upon request.

## **Stormwater Management and Drainage Plans**

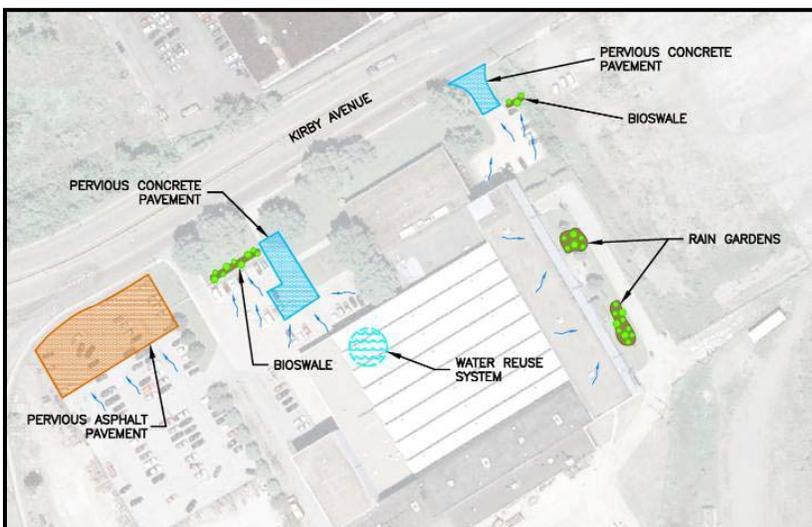
Surface Water Improvement Fund Grant

Paint Creek Multifunctional Green Infrastructure

Civic Center and Ella Mae Power Park Detention Basin Rehabilitation

## Surface Water Improvement Fund Grant City of Cleveland, Department of Public Utilities, Division of Water Pollution Control Cleveland, Ohio

On behalf of the City of Cleveland, Department of Public Utilities, Division of Water Pollution Control, **Spalding DeDecker Associates, Inc. (SDA)**, applied for and obtained a Surface Water Improvement Fund Grant from the Environmental Protection Agency for the City to construct storm water management demonstration projects at their facilities, which included Pervious Concrete and Asphalt Pavement, Rain Gardens, Bioswales, and a Water Re-use System.



The grant has been submitted to provide innovative storm water demonstration projects, which will serve as storm water management practices at the Division of Water Pollution Control's facility and to serve as an educational tool for approximately 2,000 students annually, City residents, staff, elected officials, and developers.

SDA completed the application forms and developed the project description, which included the following:

- Statement of problem
- Description of Project
- Grant Money Request
- Project Timeline
- Outreach Activities
- Project Success

SDA also developed the budget and exhibits. The grant was obtained through the Ohio Environmental Protection Agency Division of Surface Water.

### OWNER / CLIENT

City of Cleveland  
Department of Public Utilities  
Division of Water Pollution Control  
Rachid Zoghaib  
(216) 664-3785

### PROJECT START - END

December 2009 – January 2010

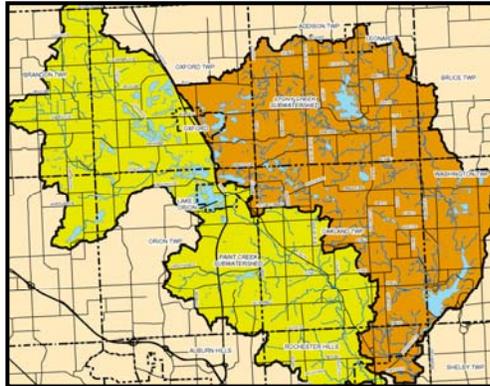
### SDA PROJECT NO.

MN10-001

## Paint Creek Multifunctional Green Infrastructure

Charter Township of Oxford, Oakland County, Michigan

Historic drainage problems have contributed to basement flooding and street flooding in a residential neighborhood along Bull Run Road, directly north (upstream) of the *Elkview Estates* property in **Oxford Township**. In addition, significant drainage has been cut off with the construction of a residential street that hydrologically fed critical wetlands in the headwaters of the Paint Creek, southeastern Michigan's only remaining coldwater trout stream. Due to budget constraints and the environmental significance of this project, stormwater grants are necessary.



These critical wetlands are identified by the Michigan Department of Environmental Quality (MDEQ) as located in the Paint Creek Subwatershed, which is currently under an accepted Watershed Plan and is of high priority according to the MDEQ.



**Oxford Township** contracted Spalding DeDecker Associates, Inc. (SDA) to develop green infrastructure solutions to the drainage problems and to recharge the wetlands to pre-settlement conditions. In addition, SDA was asked to prepare a Clean Michigan Initiative (CMI), nonpoint source pollution reduction grant (i.e., 319

Grant) application and full proposal. SDA is also coordinating with the **Clinton River Watershed Council (CRWC)** and **Six Rivers Regional Land Conservancy (SRRLC)** as local partners on the design and implementation of the multifunctional green infrastructure necessary for the wetlands restoration and protection.

If SDA is successful in obtaining the required CWA, 319 stormwater grant from the MDEQ, then the drainage improvements will be constructed and the downstream property may be purchased as a conservation easement that may allow for passive recreational use to Oxford Township residents.

SDA's proposed multifunctional green stormwater improvements provide this project with the means to restore and protect the critical wetlands in the Paint Creek headwaters and simultaneously solve the drainage and flooding problems of the adjacent property owners.

Based upon the study phase work and associated hydrologic/hydraulic computer modeling of the Cass River and levee interior drainage described above, SDA is currently designing the required levee and embankment improvements to accredit the levee system with FEMA.

### OWNER/CLIENT

Oxford Township  
Treasurer  
Mr. Joseph Ferrari  
(248) 628-9787  
jferrari@oxfordtownship.org

### PROJECT START - END

April 2012 - Ongoing

### PROJECT COST

\$5,000 (grant application)  
\$450,000 (expected)

### SDA KEY PERSONNEL

Terry Lindow

### SDA PROJECT NO.

MN12-013

### ENGINEERING EXPERTISE

Green Infrastructure Design  
Wetlands Restoration  
Natural Stream Channel Design  
Stormwater Management Planning  
Federal and State Permitting



## Civic Center and Ella Mae Power Park Detention Basin Rehabilitation Novi, Michigan

The City of Novi identified the need to repair and improve the Civic Center Regional Detention Basin and the Ella Mae Power Park Detention Basin. The Civic Center Detention Basin is a regional in-line basin on the Miller Creek. The Ella Mae Power Park Detention Basin serves the Novi Civic Center, Ella Mae Power Park, and a portion of Novi High School.



The Civic Center Detention Basin was evaluated to identify if the outlet control structure could be retrofitted to better control the bankfull flows to improve the channel protection of the Miller Creek downstream of the Basin. A hydrologic and hydraulic analysis was completed to determine the Basin's ability to control the bankfull flows and the effects on the Basin's capacity. The study recommended that the basin outlet not be modified, because the basin would lose the capacity to store the bankfull volume and would lose the capacity to store the 100-year design flood volume.

In addition to evaluating the outlet control works, the project includes the repair of the outlet structure to the Miller Creek and the extension of an access road with sections of a grass paver and gravel access drive.

The Ella Mae Power Park has an aging infrastructure identified for repair and includes replacing the outlet pipe, repair and replacement of an inletting pipe to the basin, and extension of the shared access road with the Civic Center Detention Basin.

### OWNER / CLIENT

City of Novi  
Brian T. Coburn, PE  
Engineering Manager  
45175 W. Ten Mile Road  
Novi, MI 48375  
(248) 735-5632

### PROJECT START - END

November 2010 – 2011

### PROJECT COST

Est. \$96,300.00

### SDA PROJECT NO.

NV10-003



# Project Types and Services Offered

The following projects are just a small sample of the projects Spalding DeDecker Associates, Inc. (SDA) has completed throughout the past five years. Additional project profiles can be provided upon request.

## **Trail Design and Development**

Conner Creek Greenway Terminus

Northville Bennett Arboretum Pathway

Novi 2010 Pathway Gap Program

Novi 2012 Pathway Gap and ADA Compliance Program



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Department of Technology, Management & Budget  
General Professional Design Services  
PR14-085

## Conner Creek Greenway Terminus Detroit, Michigan

**Spalding Associates, Inc.** and **DeDecker Inc. (SDA)** provided construction engineering, construction staking, and contract administration services for the construction of this final segment of a pedestrian pathway. The greenway ties several city parks together along an eight-mile-long designated path from the northern Detroit suburbs to the Detroit Riverfront. The project entailed construction of an 1,800-foot-long segment of asphalt bike path, Americans with Disabilities Act (ADA) sidewalk upgrades at seven street intersections, and signage and striping along one mile of shared use pavement.



**OWNER / CLIENT**  
Detroit Eastside Community Collaborative  
Libby Levy  
(313) 378-3975

**PROJECT START - END**  
September 2010 - November 2010

**PROJECT COST**  
\$299,000

**SDA KEY PERSONNEL**  
Paul Wade, PE

**SDA PROJECT No.**  
CE10-008

MDOT 82400-108042



SDA coordinated communication and specifications between the Detroit Eastside Community Collaborative, City of Detroit, and Michigan Department of Transportation, processed pay estimates, and provided continuous on-site inspection. SDA also followed up on landscape maintenance and other aesthetic concerns of the client to assure the project was closed out successfully.

SDA performed full Contract Administration on this project including the required Wage Rate Interviews, Certified Payroll review, and complete compliance with Davis Bacon guidelines.

## Northville Bennett Arboretum Pathway

Northville, Michigan



Spalding DeDecker Associates, Inc. (SDA) was retained by the Charter Township of Northville to provide complete engineering design and construction services for approximately 3,000 lineal feet of off road non motorized pathway. The project was funded through a multi community partnership that included Wayne County, Northville Township, and the City of Northville.

The alignment for the pathway included areas of significant topographic change that demanded creative design solutions and the sensitive use of elevated sections of walkway (boardwalks), high retaining walls, and a bridge with a 140-foot span, to minimize disturbance to the area. Some of the specific pathway improvements include:

- Elevated Boardwalk (250 LF)
- Pedestrian Bridge – Steel and Timber w /140-foot span
- Keystone Retaining Walls (4700 SF)
- “Live” (green) Retaining Walls (8100 SF)
- Pervious Concrete Paving
- Interpretative Signs



The pathway now provides a direct, non-motorized connection for residents of Northville Township for educational and other opportunities at the Bennett Arboretum and Hines Parkway, as well as access to the thriving business and entertainment district of downtown Northville. Interpretative signs placed at regular intervals along the pathway inform the users of significant natural features along the route.

### “Green Features”

The creative aspects of the design include both ‘living walls’ and pervious concrete. Living walls are retaining walls that are made with integral voids which are filled with soil and native plantings which create a more aesthetic or softer look, as well as assist in controlling soil erosion that could endanger the delicate habitat of nearby Johnson Creek.



### OWNER / CLIENT

Charter Township of Northville  
Don Weaver, PE  
Director of Public Services  
(248) 662-0495

### PROJECT START - END

June 2011 - November 2011

### PROJECT COST

\$1,004,823.98

### ENGINEERING FEE

\$139,550

### SDA KEY PERSONNEL

Ted Meadows  
Mike DeDecker, PS  
Kris Whise, RLA, LEED AP

### SDA PROJECT NO.

MN09-012

Portions of the eight-foot-wide pathway were designed using pervious concrete, which permits rain water to percolate directly through it, eliminating run off and potential soil erosion issues. It provides a margin of safety as it becomes a non-slip surface where water does not pool and ice cannot form.

### SDA Services Provided

- Design – Alignment and Engineering
- Construction Drawings & Bid Documents
- Contract Administration
- Survey – Construction Layout
- Construction Engineering – Inspection



## 2010 Pathway Gap Program

Novi, Michigan

**Spalding DeDecker Associates, Inc. (SDA)** provided design engineering services to close four gaps in the pedestrian pathway network. The City has an extensive sidewalk and pathway network in place, with intermittent gaps adjacent to older developments or due to right-of-way restrictions. The City's program is focused on closing the gaps based on potential population served.

The 2010 Pathway Gaps Project included concrete segments along Ten Mile Road west of Meadowbrook, Willowbrook Road south of Ten Mile, and the intersection of Ten Mile Road and Nilan Drive.



As part of the design services, SDA performed topographic surveys, provided design for walkway, drainage improvements, Americans with Disabilities Act (ADA) compliant ramps, submitted permit applications, and prepared and issued contract and bidding documents.

SDA provided construction engineering services for the project, which included contract administration, construction observation, and layout.

### SPECIAL FEATURES

SDA developed figures and descriptions for these locations to assist the City in obtaining easements required to close the gaps.

#### OWNER / CLIENT

City of Novi  
Benjamin Croy  
Civil Engineer  
(248) 347-0454

#### PROJECT START - END

October 2009 - September 2010

#### PROJECT COST

\$145,000

#### SDA KEY PERSONNEL

David Eno, PE  
Michael DeDecker, PS  
Cheryl Gregory, PE  
Eric Kipp, PE  
George Platz, PS

#### SDA PROJECT NO.

NV09-007

## 2012 Pathway Gap and ADA Compliance Program

Novi, Michigan

**Spalding DeDecker Associates, Inc. (SDA)** provided design engineering services to close four gaps in the pedestrian pathway network. The City has an extensive sidewalk and pathway network in place, with intermittent gaps adjacent to older developments or due to right-of-way restrictions. The City's program is focused on closing the gaps based on potential population served.

The 2012 Pathway Gaps Project included concrete segments along Meadowbrook Road north of Grand River, Taft Road north of Eleven Mile, and ADA compliance areas along Meadowbrook Road. This includes a 200-foot section of timber boardwalk through a wetland area.

As part of the design services, SDA performed topographic surveys, provided design for walkway, drainage improvements, Americans with Disabilities Act (ADA) compliant ramps, submitted permit applications, and prepared and issued contract and bidding documents.

SDA will provide construction engineering services for the project, including contract administration, construction observation, and layout. This project will be built in the summer/fall of 2012.

### SPECIAL FEATURES

SDA developed figures and descriptions for these locations to assist the City in obtaining easements required to close the gaps.



### OWNER / CLIENT

City of Novi  
Benjamin Croy  
Civil Engineer  
(248) 347-0454

### PROJECT START - END

August 2012 - on-going

### PROJECT COST

\$150,000

### SDA KEY PERSONNEL

Michael DeDecker, PS  
Terry Lindow  
Ted Meadows

### SDA PROJECT NO.

NV11-004



# Project Types and Services Offered

The following projects are just a small sample of the projects Spalding DeDecker Associates, Inc. (SDA) has completed throughout the past five years. Additional project profiles can be provided upon request.

## **Wastewater Systems**

Lateral 94 Drainage District Improvement

Novi 2010 Sanitary Pump Station Upgrade

Novi Sanitary Sewer Rehabilitation – Areas B, C1, & G



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Department of Technology, Management & Budget  
General Professional Design Services  
PR14-085

## Lateral 94 Drainage District Improvement

Wayne County, Michigan



Wayne County Department of the Environment, on behalf of the Lateral 94 Drainage District, contracted with Spalding DeDecker Associates, Inc. (SDA) to evaluate the condition of the main interceptor sewer in the District and the downstream Banner Street Pump Station, develop recommendations for rehabilitation, design the upgrades, and administer the construction phase of the project.

The Lateral 94 Drainage District is located in the City of Taylor, between the I-94 Freeway and Van Born Road, west of Telegraph Road. The sanitary flow is transported through a 48" sanitary sewer to a 24" sewer that discharges into the Banner Street Pump Station where it is lifted approximately 3 ft and is discharged through a 4" force main into a 12" gravity sewer. The flow is then transported via the 12" sanitary sewer to a 42" gravity sewer on Hanover Street. The Banner Street Pump Station and the system discharge are located in the City of Dearborn Heights.

The preliminary analysis including sewer televising to determine the condition of both the upstream 48" sanitary sewer and the downstream 12" sanitary sewer, structural investigation of the wet well, detailed mechanical and electrical review of the pump station, and hydraulic analysis to determine if the pump station can be eliminated.

Two separate bidding documents were prepared for the:

- The lining and grout repair of 20 ft of damaged 48" sanitary sewer upstream of the pump station at Avalon Street and the pressure grouting of the soil at Avalon Street from the surface to fill the voids around the sanitary pipe.
- The lining of the 12" sanitary sewer downstream of the pump station and the mechanical and electrical upgrade of the pump station

The two projects were awarded to two separate Contractors with the requirement that the upstream sewer be repaired prior to work starting at the pump station.



### OWNER / CLIENT

Wayne County Department of the Environment  
Dan Alford  
(313) 224-7679

### PROJECT START - END

April 2010 – July 2012

### PROJECT COST

\$124,600.00

### SDA KEY PERSONNEL

Keith Lumma, PACP

### SDA PROJECT NO.

MN10-004

## 2010 Sanitary Pump Station Upgrade

Novi, Michigan



The City of Novi routinely updates its pump stations as part of its system maintenance program. The 2010 program included the Drakes Bay Pump Station, located on Wixom Road and Drakes Bay and Park Place Pump Station location on Roberts Drive South of Nine Mile Road.

**Spalding DeDecker Associates, Inc. (SDA)** provided design and is currently providing Construction Contract Administrative (CCA)

services for the upgrades. The primary goal of the design phase was to improve the operations of the pump stations and minimize maintenance requirements.

Included in the upgrades was the installation of natural gas generators at both pump stations to provide redundant power. The modifications also included the replacement of the wet well roof slab at Drakes Bay Pump Station. At Park Place Pump Station, the modifications included the replacement of the control panel as well as mechanical and structural upgrades to the valve chamber and providing a new access drive to the site.

Bypass pumping plans were developed to allow the Contractor to maintain uninterrupted sewer flow during the construction of the upgrades.



### OWNER / CLIENT

City of Novi  
Benjamin Croy  
Civil Engineer  
(248) 347-0454

### PROJECT START - END

December 2009 – January 2011

### PROJECT COST

\$178,300.00

### SDA FEE

\$41,680.00

### SDA KEY PERSONNEL

Ted Meadows

### SDA PROJECT NO.

NV09-010

## Sanitary Sewer Rehabilitation – Areas B, C1, & G Novi, Michigan



The City of Novi is currently implementing a Capacity, Management, Operations, and Maintenance (CMOM) Program.

As part of the program, the Department of Public Services regularly cleans and televises the sanitary sewer pipes looking for potential defects and sources of Inflow and Infiltration (I/I).

**Spalding DeDecker Associates, Inc. (SDA)** was contracted by the City of Novi to review the DVDs for Areas B, C1, and G, evaluate the condition of the pipes, and develop recommendations for sewer repair or replacement.

SDA has its in-house database that incorporates the televising Contractor's results electronically. SDA staff uses the PACP rating system to rank the severity of the deteriorations directly into the database to be used in the prioritization list.

As part of the review, SDA staff develops rehabilitation recommendations which are incorporated into the database. The database generates the associated costs for each pipe section and a list is generated from the database, prioritizing the rehabilitation with an estimated cost of rehabilitation.

The sewer evaluation is followed by a report prioritizing the sewers to be rehabilitated and the associated costs for each segment.

The City of Novi requested construction details and bidding documents to be prepared. The City's current manhole numbering system was used on this project and was shown on the maps. This will provide the City with consistency between the bid documents and the City's GIS System.

SDA will also be performing construction administration and observation using SDA's PACP certified Inspectors.

### OWNER / CLIENT

City of Novi  
Benjamin Croy  
Civil Engineer  
(248) 347-0454

### PROJECT START - END

July 2011 - Ongoing

### PROJECT COST

\$750,000

### SDA FEE

\$11,500.00

### SDA PROJECT NO.

NV11-003



# Project Types and Services Offered

The following projects are just a small sample of the projects Spalding DeDecker Associates, Inc. (SDA) has completed throughout the past five years. Additional project profiles can be provided upon request.

## **Water Supply Systems**

Romeo Plank Water Main Replacement

New Haven Water Main Extension

Woodham Road Water Main Extension SAD

Heide, Thunderbird, and Oliver Water Main Replacement



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Department of Technology, Management & Budget  
General Professional Design Services  
PR14-085

## Romeo Plank Watermain Replacement

Macomb Township, Michigan

**Spalding DeDecker Associates, Inc. (SDA)** designed and administered the construction of this project, which included the replacement of the aging 12" cast iron transmission watermain with approximately 8,000 ft of 16" ductile iron transmission watermain on Romeo Plank Road, south of 21 Mile Road to 22 Mile Road.

This water main was originally installed in the 1960's, and had substantially exceeded the expected service life of 30 years.



Directional drilling included approximately 300 ft of HDPE watermain under the Clinton River.

### SPECIAL FEATURES

The watermain was being constructed on Romeo Plank Road as the Macomb County Department of Roads (MCDR) was having the road widened by another Contractor. Continuous coordination between the two contractors as well as SDA, Macomb Township, and MCDR, was required to deliver both projects on time while maintaining safe traffic on Romeo Plank Road.

### OWNER / CLIENT

Township of Macomb  
Gerry Wangelin  
Superintendent - Water & Sewer  
(586) 598-0687

### PROJECT START - END

May 2007 – August 2009

### PROJECT COST

\$1,604,170.58

### SDA KEY PERSONNEL

Mike DeDecker, PS

### SDA PROJECT NO.

MA07-008

## New Haven Water Main Extension Macomb Township, Michigan



**Spalding DeDecker Associates, Inc. (SDA)** designed, prepared contract documents, and performed the construction contract administration for the extension of 10,800 ft of 12" and 16" ductile iron and 20" HDPE transmission water main utilizing open cut and directional drilling construction methods. The water main was extended along 25 Mile Road, Card Road, and 26 Mile Road and was prompted by the need to serve a newly constructed elementary school.

Due to the rural nature of the area and limited right-of-way it was necessary for SDA to prepare and assist in obtaining easements from private property owners along the entire length of the water main construction. Easement negotiations required that special provisions be made as part of the construction documents including altering an electrified livestock fence and special care to protect agricultural crops during construction.

### Special Features

In addition to the need to address specific requirements of farming operations it was also necessary to address environmental concerns including the crossing of the North Branch of the Clinton River and approximately 1600 ft of wetland areas. By utilizing directionally drilling methods in these areas, it was possible to minimize environmental impacts and to reduce the need for costly wetland restoration.



### Coordination

The project required extensive coordination with the property owners to protect farming and grazing needs as well as coordination with the Macomb County Department of Roads. On-Site meetings were held with the Macomb Township Fire Department to determine final location of fire hydrants for access given the rural location of the water main as well as with the School Developers for final connection.

### OWNER / CLIENT

Township of Macomb  
Gerry Wangelin  
Superintendent Water & Sewer  
(586) 598-0687

### PROJECT START - END

February 2008 – June 2011

### PROJECT COST

Engineering: \$235,000  
Construction: \$940,000

### SDA PROJECT NO.

MA07-019

## Woodham Road Watermain Extension SAD Novi, Michigan

**Spalding DeDecker Associates, Inc. (SDA)** was selected to provide design and construction engineering services for a 500-foot, 8"-diameter watermain extension to provide service along Woodham Road in the City of Novi.

SDA provided boundary and topographic survey services, prepared preliminary plans and cost estimates for the City's review, and then proceeded to develop final construction plans for the project.



SDA managed the securing of required permits to construct this watermain. SDA developed contract documents in coordination with the City's standard documents, and managed the advertising of the project and contractor bidding. The SDA staff prepared bid tabulations and made recommendations to the City on contractor selection. SDA provided construction engineering services throughout construction, which included contract administration, project inspection, and management of contractor payments and project close-out.

This project required the tunneling of pipe segments under existing trees and driveways to minimize the disruption to the existing residents.

This project was funded through a special assessment district (SAD).

### OWNER / CLIENT

City of Novi  
Rob Hayes, PE  
City Engineer  
(248) 347-0454

### PROJECT START - END

May 2012 - July 2012

### PROJECT COST

\$37,025 (Engineering)  
\$88,400.00 (Construction)

### SDA KEY PERSONNEL

Michael DeDecker, PS  
Terry Lindow  
Ted Meadows

### SDA PROJECT NO.

NV11-005

## Heide, Thunderbird, and Oliver Water Main Replacement

Troy, Michigan



**Spalding DeDecker Associates, Inc. (SDA)** was contracted by the City of Troy to replace the existing 8" and 12" water mains on Heide, Thunderbird, and Oliver Roads with 16" ductile iron water mains. The existing water mains were located just outside of the road within the road right-of-way (ROW), with the sanitary sewers located on the other side of the ROW. Due to the limited width of the ROW, the new water main was installed underneath the existing concrete roadway.

Heide, Thunderbird, and Oliver Roads create a loop with only two access points, both on Maple Road. The area is considered light industrial with certain facilities operating 24 hours per day, seven days per week. As a result, traffic maintenance to provide continuous access to the facilities and maintaining water supply at all times became prominent aspects of the design concept.

A survey was mailed out to the property owners early in the design phase to determine hours of operation, water needs, and delivery schedules. Public meetings were held with the Owners as the design concepts were being developed.

The final project consisted of approximately 5,700 ft. of 16" ductile iron water main loop with two connections to the existing 16" pre-stressed concrete water mains on Maple Road. The project also included complete replacement of the existing concrete roadway on Heide Road and partial replacement of the roadway on Oliver and Thunderbird Roads.

SDA also performed construction engineering services for this project.

### SPECIAL FEATURES

Special features included the design of water main and road replacement projects while maintaining access to facilities that operate 24 hours per day, seven days per week.



### OWNER / CLIENT

City of Troy  
Steven Vandette, PE  
City Engineer  
(248) 524-3383

### PROJECT START - END

September 2008 – November 2009

### PROJECT (CONSTRUCTION) COST

\$1,792,853.21

### ENGINEERING FEE

\$234,221.24

### SDA KEY PERSONNEL

John Becht

### SDA PROJECT NO.

TR08-002

**POSITION, CLASSIFICATION AND EMPLOYEE BILLING RATE INFORMATION**

2014 Indefinite-Scope Indefinite-Delivery – Request for Proposal  
 General Professional Design Services  
 (Architecture, Engineering, Landscape Architecture)

**Firm Name**

**Spalding DeDecker Associates, Inc.**

**Yearly Hourly Billing Rate Increase**

**2.5%**

Employee(s) Name	Position/Classification	Year 1	Year 2	Year 3	Year 4
		Thomas Sovel, PE**	Account/Project Manager	140.00	143.00
Cheryl Gregory, PE**	QA/QC	165.00	169.00	173.00	177.00
Jacob Ensley, PE**	Project Engineer	110.00	112.00	115.00	118.00
Paul Kuplicki	Designer	100.00	102.00	104.00	107.00
David Richmond, PE**	Utility Task/Project Manager	130.00	133.00	136.00	139.00
Taylor Reynolds, PE**	Senior Project Engineer	120.00	123.00	126.00	129.00
Terry Lindow	Designer	100.00	102.00	104.00	107.00
Keith Lumma, PACP	Confined Space Entry Technician	95.00	97.00	99.00	101.00
Edward Strada, PE**	Roads Task/Project Manager	140.00	143.00	146.00	150.00
Eric Kipp, PE**	Project Engineer	110.00	112.00	115.00	118.00
Erum Imam, EIT	Engineer	100.00	102.00	104.00	107.00
Monica Tonucci	Designer	100.00	102.00	104.00	107.00
Jenean Robbins, PE**	Construction Engineering Task/Project Manager	140.00	143.00	146.00	150.00
John Becht**	Contract Administrator	110.00	112.00	115.00	118.00
Mukesh Bhatt	Construction Technician	90.00	92.00	94.00	96.00
Heather Gendron	Construction Technician	80.00	82.00	84.00	86.00
David Sterling	Construction Technician	90.00	92.00	94.00	96.00
Paul Swartz	Construction Technician	80.00	82.00	84.00	86.00
Ben Videan	Construction Technician	80.00	82.00	84.00	86.00
Kim Danowski, CFM	SESC Technician	80.00	82.00	84.00	86.00
Mike DeDecker, PS**	Survey Task/Project Manager	140.00	143.00	146.00	150.00
Craig Bagby, CST III**	Senior Project Surveyor	130.00	133.00	136.00	139.00

	CAD Technician	80.00	82.00	84.00	86.00
	Two-Person Survey Crew	160.00	164.00	168.00	172.00
M. Jack Knowles, RLA**	Landscape Architecture Task/Project Manager	130.00	133.00	136.00	139.00
Kris Whise, RLA, LEED-AP BD+C**	Landscape Architect	110.00	112.00	115.00	118.00

\*Billing Rate will be in accordance with the attached guideline page for instructions regarding the "Overhead Items used for Professional Billing Rate Calculation," and the attached "Sample Standard Contract for Professional Services," Article 5, Compensation Text.

\*\* Key Project Personnel