

August 16, 2019

raSmith

CREATIVITY BEYOND ENGINEERING

Professional Services for:

City of West Allis

Private Property Improvements

(262) 781-1000
raSmith.com

16745 West Bluemound Road
Brookfield, WI 53005-5938



Section I: General Qualifications

Firm Overview	p. 2
Cover Letter	p. 3
Key Personnel	p. 4
Current Staff	p. 5
Current Projects	p. 6
Similar Project Experience	p. 7
Additional References	p. 9
Appendix: Resumes	p. 10

Section II: Consultant Tasks

Project Approach	p. 14
Hourly Fee Schedule	p. 18

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CREATIVITY BEYOND ENGINEERING

Cover Letter

16745 W. Bluemound Rd.
Brookfield, WI 53005-5938

August 16, 2019

Mr. Heath Brozovich, Principal Engineer
City of West Allis Engineering Department
7525 W. Greenfield Avenue
West Allis, WI 53215

RE: Request for Proposal for
Engineering Consultant Services For Construction Management of Private Property Improvements

Dear Mr. Brozovich:

raSmith appreciates the opportunity to provide the City of West Allis with our proposal to provide professional services for construction management of private property improvements as described in your request for proposal. We understand that this request requires our firm to perform construction management and inspection of the private property improvements described but also forms a partnership between our staff and City staff to ensure that all aspects of these projects are addressed. We also understand that these projects could start in October 2019 and extend through July 2020, with a possibility for additional time or scope extensions as well. With that, we have put together a team who will be dedicated to this effort throughout the project's length.

Our project team, led by Pat Zimmer, P.E., offers the City of West Allis significant expertise in construction administration and management necessary to successfully complete this project. Pat has approximately 35 years of construction-related experience, with 30 of those years in service as the construction department director at raSmith.

Pat will lead a team of qualified professionals, all of who have prior experience on private property improvements. Chris Stamborski, P.E., assistant director of municipal services, will provide project assistance to Pat, as Chris has been involved in various private property-related design and construction projects representing communities directly. Chris' experience will offer the unique perspective of seeing these projects through with an owner's perspective, and experience dealing with individual property owners as well. Chuck Pape, P.E., project/construction engineer, has served in a construction/field representative role on every private property-related study, investigative, and implementation activity raSmith has performed since 2011. Chuck vast experience coordinating these projects, and managing private property owners is something we believe will be invaluable to a project such as this one. Finally, Dennis Anderson, construction representative, will have a construction inspector role on this project when additional staff is needed. Dennis has a variety of experience in construction and recently completed a lead service lateral replacement project in West Milwaukee. If necessary, our additional staff of talented construction inspectors will assist on this project as required.

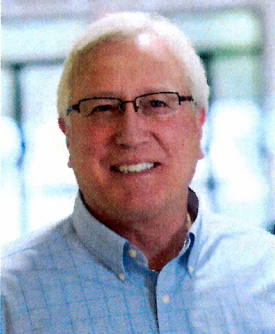
raSmith sincerely appreciates its ongoing professional relationship with the City of West Allis and looks forward to an opportunity to serve you on these private property improvement projects. Please do not hesitate to contact us with any questions regarding our proposal.

Sincerely,
raSmith



Chris M. Stamborski, P.E.
Assistant Director of Municipal Services

Key Personnel



Pat Zimmer, P.E., Director of Construction Services, Associate

Role: Primary Contact/Project Manager

For 35 years, Pat has been involved with over 1,000 construction services projects ranging from municipal water and wastewater to highways and bridges. As director of construction services, Pat manages a staff of more than 30 engineers, technicians and field personnel. He is also the internal principal of construction observation, monitoring, management and materials testing for Wisconsin Department of Transportation projects, local units of government and private developments.



Chris Stamborski, P.E., Assistant Director of Municipal Services

Role: Program Consultant, Design Engineer

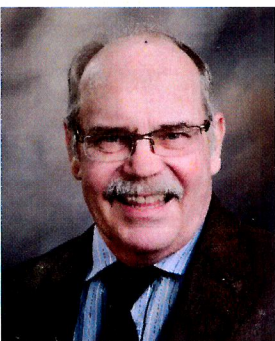
With over 19 years of experience, Chris' expertise centers on the planning, evaluation and design of public and private water main and sanitary sewer facilities, conducting SSES, sanitary sewer rehabilitation and study reports. He has assisted various other MMSD communities through their private property rehabilitation projects, and serves as the raSmith lead for the MMSD Municipal and District PPII project contracts. Chris regularly attends MMSD TAT meetings, and stays apprised of changes and advances in the PPII industry that could provide benefit to this project.



Chuck Pape, P.E., Civil Engineer

Role: Lead Field Representative

Chuck has more than 44 years of experience in the civil engineering industry, including 30 years with the WDNR, serving primarily as the first point of contact for all Clean Water Fund sewer and drinking water projects in Southeastern Wisconsin. At raSmith, Chuck primarily works on sanitary sewer and private property investigative and rehabilitation projects, coordinating work directly with private property owners and contractors, and serves as a liaison between local units of government, raSmith, private contractors and private property owners. His experience over the past eight years on these project provides invaluable knowledge for the City of West Allis on this project.



Dennis Anderson, Construction Representative

Role: Inspector

Dennis has more than 38 years of construction inspection and construction management experience in municipal, state highway, structures and MMSD projects. Dennis identifies and resolves inefficient operational processes, and is able to motivate crews to achieve production rates while maintaining high safety methods and practices. Even in hectic environments, Dennis is a clear communicator and uses his excellent follow-through skills to fulfill all administrative requirements from field activities. He provides highly effective leadership while managing complex projects, with a focus on detailed inspections to ensure safety, environmental compliance and full adherence to private sector, municipal and state clients.

Additional resume information is located at the end of this section of the proposal. These shortened resumes include the additional requested information of educational background, credentials, and experience.

Current Staff

The organizational chart shown below provides a summary of services provided by each raSmith division, with a breakdown of personnel by title and number of Wisconsin staff. In total, raSmith employs a staff of 210

with 173 technical staff located in our eight offices in Wisconsin, Illinois, and California. Of the staff noted below, we have 73 PEs, 2 SEs and 12 PLSs.

Municipal Services

Our municipal services division has served local government since 1978. Our comprehensive services enable us to provide a seamless approach that meets a range of community needs.

Personnel

- 10 Engineering Project Managers
- 20 Project Engineers and Technicians
- 1 GIS Specialist

Land Survey

We established and maintain a strong survey presence in Wisconsin and nationally. raSmith has more than 165,000 individual property site surveys on file, dating back to 1929.

Personnel

- 7 Survey Managers
- 19 Surveyors/Technicians
- 1 3D Laser Scanning Manager
- 3 LiDAR Technicians

Land Development Services

Our staff serves a variety of clients on new development and redevelopment projects in the commercial/retail, educational, health care, industrial, institutional, residential and other markets.

Personnel

- 6 Project Managers
- 19 Project Engineers & Technicians
- 5 Landscape Architects

Structural Services

Our structural engineers provide design solutions to the private and public sectors for new, rehabilitated and retrofitted bridge and building structures. Markets served include local government, WisDOT, health care, higher education, commercial and corporate, among others.

Personnel

- 8 Engineering Project Managers
- 23 Project Engineers and Technicians

Transportation

We are intimately familiar with the distinctive needs and requirements of clients at both the state and local levels. Numerous award-winning projects are a result of our staff's commitment to quality and responsiveness.

Personnel

- 5 Engineering Project Managers
- 11 Project Engineers and Technicians
- 5 Traffic Engineers

Construction Services

We focus on constructing projects according to each client's unique requirements. Our experienced staff has the engineering foresight and know-how to address potential concerns and minimize construction impacts.

Personnel

- 3 Group Managers
- 3 Project Leaders
- 20 Project Engineers and Technicians

Ecological

Our ecological staff provides needed information to clients, enabling them to make informed decisions. Our goal is to facilitate our clients' project needs without compromising the important values that natural resources provide to the community.

Personnel

- 4 Wetland Ecologists

Current Projects/Commitments for Construction Services

The following list are project commitments currently undertaken by raSmith's Construction Services staff:

- Greenmeadow Sanitary Interceptor Sewer, City of Waukesha
- 16th Street Reconstruction, Village of Mount Pleasant
- Oakwood at Ryan Creek Subdivision, City of Franklin
- Salem Streets, Village of Salem Lakes
- St. Francis 2019 Paving Program, City of St. Francis
- Fitzsimmons Road Water Main Relay, City of Oak Creek
- WIS 32 (5 Mile Road to WIS 31), Racine County
- Dora Lane, Village of Mount Pleasant
- Butler Paving Program, Village of Butler
- Milwaukee Metropolitan Sewerage District (MMSD) Services, Milwaukee
- Prairie Highlands Corporate Park, Village of Pleasant Prairie
- Park Avenue Utility and Road Reconstruction, Village of Germantown
- Upland Ridge Subdivision, City of New Berlin
- Greendale Road Rehabilitation and General Engineering Services, Village of Greendale
- Hidden Lake Park and Trail, City of Brookfield
- New Berlin Paving Program, City of New Berlin

These projects vary in size and many of them extend into the remainder of the construction season. However, Chuck Pape is not currently assigned to any of the above projects, as he typically only works on private property-related efforts. With that noted, we can easily confirm our commitment to having Chuck Pape on the City of West Allis project, as there is nothing currently conflicting with this assignment for him.

Similar Project Experience

2020 Sanitary Sewer Lateral Rehabilitation

Location & Owner: City of New Berlin

Project description: Planning stages of developing an MMSD work plan for the rehabilitation of approximately 200 private sanitary sewer laterals in the City. The project will most likely specify the use of a cured-in-place lining methodology to rehabilitate the laterals, which includes CIPP lining of the connection of the private lateral to the mainline sewer.

New Berlin Utility Manager: Jim Hart, (262) 786-7086

raSmith role: Prime Design and Construction Engineer
Status of completion: Bidding Spring/Summer 2020

2020 Sanitary Sewer Lateral Rehabilitation

Location & Owner: Village of Greendale

Project description: Planning stages of developing an MMSD work plan for the rehabilitation of approximately 175 private sanitary sewer laterals in the Village. The project will most likely specify the use of a cured-in-place lining methodology to rehabilitate the laterals, but only include CIPP lining of the mainline to lateral connection where the mainline sewer has been previously rehabilitated. Grouting the interface between the mainline sewer and lateral will be utilized for the majority of the project.

Village Engineer: Len Roecker, P.E., (262) 317-3383

raSmith role: Prime Design and Construction Engineer
Status of completion: Bidding Spring/Summer 2020

2020 Sanitary Sewer Lateral Rehabilitation

Location & Owner: Village of West Milwaukee

Project description: Planning stages of developing an MMSD work plan to disconnect existing foundation drains and install sump pumps in approximately 20 residential homes where sewer laterals were previously CIPP-lined years back. Project will include the connection of the sump pump discharges to a storm sewer lateral that was also recently installed as part of a road reconstruction and storm sewer relay project.

Village Engineer: Len Roecker, P.E., (262) 317-3383

raSmith role: Prime Design and Construction Engineer
Status of completion: Bidding Summer 2020

2020 Sanitary Sewer Lateral Rehabilitation

Location & Owner: Village of Hales Corners

Project description: Planning stages of developing an MMSD work plan for the rehabilitation of approximately 50 private sanitary sewer laterals in the Village. The project will most likely specify the use of a cured-in-place lining methodology to rehabilitate the laterals, including CIPP lining of the mainline to lateral interface. Disconnection of foundation drains, sump pumps, and stormwater conveyance improvements will also be addressed with this project.

Village Engineer: Mike Martin, P.E., (414) 529-6165

raSmith role: Prime Design and Construction Engineer
Status of completion: Bidding Spring/Summer 2020

Similar Project Experience (continued)

2018 Sanitary Sewer Lateral Rehabilitation

Location & Owner: Village of Brown Deer

Project description: Cured-in-place pipe lining of approximately 75 private sanitary sewer laterals in the Village. Laterals were selected based on the results of a 2015 sanitary sewer dye water testing project completed in the Village. Laterals selected were prioritized for rehabilitation to have the largest impact on I/I reduction for the Village. The lateral rehabilitation included the full lining of the mainline to lateral interface, extending up to the foundation of the properties with one-piece lining.

Brown Deer DPW Director/Engineer: Matthew Maederer, P.E., (414) 357-0120

raSmith role: Prime Design and Construction Engineer
Status of completion: Completed Fall 2018

2018 Sanitary Sewer Lateral Rehabilitation

Location & Owner: City of New Berlin

Project description: Cured-in-place pipe lining of approximately 150 private sanitary sewer laterals in the City. Laterals were selected based on the results of a 2015 sanitary sewer dye water testing and lateral inspection project completed by the City. The City elected a comprehensive lateral rehabilitation approach to this neighborhood, which included laterals not witnessed leaking during the dye testing, but had other O&M concerns. The lateral rehabilitation included the full lining of the mainline to lateral interface, extending up to the foundation of the properties with one-piece lining.

New Berlin Utility Manager: Jim Hart, (262) 786-7086

raSmith role: Prime Design and Construction Engineer
Status of completion: Completed Fall 2018

2018 Lead Water Service Lateral Replacement

Location & Owner: Village of West Milwaukee

Project description: Replacement of existing lead water lateral services to approximately 12 residential properties in the Village. The services were replaced as part of a public water main relay, and were in part funded through a grant program sponsored through the WDNR.

Village Engineer: Len Roecker, P.E., (262) 317-3383

raSmith role: Prime Design and Construction Engineer
Status of completion: Completed Summer 2018

2015—2018 Sanitary Sewer Dye Water Testing and CCTV

Location & Owner: City of Wauwatosa

Project description: Performed sanitary sewer dye water testing and CCTV for approximately 500,000 lineal feet of sanitary sewer mainline pipe in the City. The testing was intended to simulate rainfall conditions in the storm sewer while monitoring the condition of the mainline sanitary sewer and private lateral connections. Public and private leak locations were identified and quantified for use in directing future I/I reduction efforts by the City. Private sewer laterals were televised throughout this effort to identify and quantify the location of leaks on private property as well.

City of Wauwatosa Engineer: Bill Wehrley, P.E., (414) 479-8929

raSmith's role: Procured CCTV contractor and directed field operations. Completed study report.
Status of completion: Completed annually

Similar Project Experience (continued) & References

2015 Sanitary Sewer Lateral Dye Water Testing and CCTV

Location & Owner: City of New Berlin

Project description: Performed sanitary sewer dye water testing and CCTV for approximately 50,000 lineal feet of sanitary sewer mainline pipe in the City, including direct dye testing inspection of lateral identified for a future CIPP project. The testing was intended to simulate rainfall conditions in rural roadway cross-sections by flooding the ditches and culverts within the right-of-way. Public and private leak locations were identified and quantified for use in selecting the appropriate rehabilitation method for a future private lateral rehabilitation project.

New Berlin Utility Manager: Jim Hart, 262-786-7086

raSmith's role: Procured CCTV contractor and directed field operations. Completed study report.

Status of completion: Completed 2015

2015 Sanitary Sewer Lateral Dye Water Testing and CCTV

Location & Owner: Village of Brown Deer

Project description: Performed sanitary sewer dye water testing and CCTV for approximately 20,000 lineal feet of sanitary sewer mainline pipe in the Village. The testing was intended to simulate rainfall conditions in both urban and rural roadway cross-sections by flooding the storm sewer, ditches and culverts within the right-of-way. Public and private leak locations were identified and quantified for use in selecting the appropriate rehabilitation method for a future private lateral rehabilitation project. The 2018 private sewer lateral rehabilitation project was selected based on the results of this testing.

Brown Deer DPW Director/Engineer: Matthew Maederer, P.E., (414) 357-0120

raSmith's role: Procured CCTV contractor and directed field operations. Completed study report.

Status of completion: Completed 2015

Home Inspection and Sanitary Sewer Lateral Dye Water Injection Testing

Location & Owner: City of Brookfield

Project description: Project included the coordination and inspection of approximately 1,200 residential properties to confirm the presence of sump pumps, foundation drains, downspouts, and discharge locations of all. Project also included the CCTV of private sewer laterals while injecting dyed water over the lateral during CCTV work. All data was used in a study report prepared in response to an EPA consent order, and also to direct future implementation work on private property. Project first started in 2012 and ended in 2015.

Brookfield DPW Director: Tom Grisa, P.E., (262) 796-6644

raSmith's role: Subconsultant to Brown and Caldwell, responsible for all field data collection activities
Status of completion: Completed Summer 2015

Additional Client References

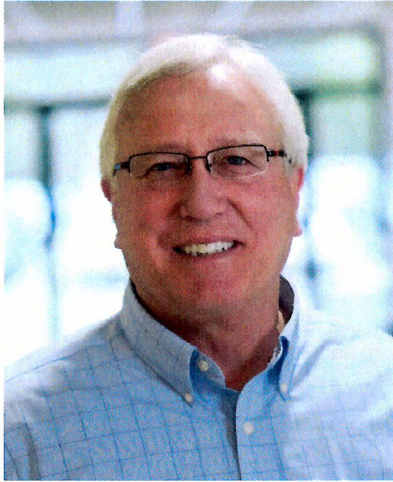
Kayla Chadwick, Treasurer/Administrator
Village of Butler
(262) 783-2525

Mary Jo Lange, P.E., DPW Director/Engineer
City of Cudahy
(414) 769-2253

Brian Johnston, P.E., Utility Engineer
City of Oak Creek Water & Sewer Utility
(414) 570-8200 ext. 24

Jerome Fogel, P.E., PPII Program Manager
Milwaukee MSD
(414) 225-2161

Patrick T. Zimmer, P.E. — Project Manager



Education

B.S. Civil Engineering, University of Wisconsin Milwaukee, 1988

Continuing Education

10-Hour OSHA Training for Construction

Professional Registration

Wisconsin Professional Engineer

Teaching Experience

Chairman of the Planning Committee for the Milwaukee Metropolitan Sewerage District (MMSD)

Inspection Seminar, 1991–1995 and 2003–2006

raSmith training program, 1988–present

Member of the Organizational Committee for the MMSD Inspection Seminar, 1989–present

Inspection Seminar, Updates in the Standard Specifications for Sewer & Water Construction in Wisconsin, MMSD, 2003 and 2004

Certified Instructor: Wisconsin Department of Natural Resources Hunter Safety Education, 2002–present

Inspection Seminar, Record Keeping, MMSD, 1991 and 1993

Inspection Seminar, Infiltration/Exfiltration and Deflection Testing, MMSD, 1990

Professional Affiliations

Wisconsin Transportation Builders Association

Wisconsin Asphalt Pavers Association

American Water Works Association

Wisconsin Underground Raw Materials Suppliers

Pat is gaining his 35th year of experience in construction services. In those years, he has been involved with a conservative estimate of more than 1,000 projects ranging from municipal water and wastewater to highways and bridges. He has held the position of Director of Construction Services for approaching 30 years, managing a staff of more than 30 engineers, technicians and field personnel.

Pat is also the internal principal of construction observation, monitoring, management and materials testing for Wisconsin Department of Transportation projects, local units of government and private developments.

Project Experience

- Wauwatosa Bikeshare, Milwaukee County
- 60th Street and three ARRA Projects, Milwaukee County
- USH 18, Waukesha County
- CTH C, Waukesha County
- STH 23, Sheboygan County
- CTH NN, Waukesha County
- Dodge County Bridges, Dodge County
- STH 67, Sheboygan County
- STH 190, Capitol Drive, Waukesha County
- STH 23 CTH O – Pleasant View Road, Sheboygan County
- CTH L, Waukesha County
- CTH KR to STH 11 Box Culvert Extension, Racine County
- Fox River Bridge, CTH E, Winnebago County
- CTH E – Oconomowoc River Bridge, Waukesha County
- 124th Street, Waukesha/Milwaukee County
- IH-43, Waukesha County
- IH-43, Sheboygan County
- 7 Mile Road, Racine County
- Highland Road Bridge, Ozaukee County
- CTH H (Broadway Street) over Ashwaubenon Creek, Brown County
- CTH VV, Waukesha County
- CTH X (Genesee Road), Waukesha County
- USH 41 Mega Project, Winnebago County
- CTH U Bridge over USH 12, Walworth County and USH 18 Bridge over I-94, Waukesha County
- I-94 and CTH G Interchange, Waukesha County
- CTH ES Reconstruction, Waukesha County
- STH 20, Reconstruction, Racine County
- CTH O, Reconstruction, Waukesha County
- CTH W, Reconstruction, Waukesha County
- USH 41 and STH 28 Interchange, Dodge and Washington Counties
- Calhoun Road Reconstruction, City of Brookfield
- CTH ES (National Avenue) Reconstruction, Waukesha County
- Donges Bay Road Sewer and Water Main Extension, City of Mequon
- River Road, City of Mequon

Christopher M. Stamborski, P.E. — Program Consultant



Education

B.S. Civil Engineering, Marquette University, Milwaukee, 2000

Professional Registrations

Wisconsin Professional Engineer

Awards/Honors

CSWEA Golden Manhole Society membership award, 2019
 "Public Works 2007 Trendsetters," *Public Works Online*, November 1, 2007
 2007 Young Engineer of the Year Award, Waukesha Chapter of WSPE
 2007 Young Engineer of the Year Award, State Society of WSPE
 2007 Young Professional of the Year Award, *The Daily Reporter* and *Wisconsin Builder* magazine

Chris holds the position of Assistant Director of Municipal Services at raSmith. He started his career at raSmith over 19 years ago, spending the better part of his career working on sanitary sewer evaluation, investigation, and rehabilitation work, concentrating mainly on the identification of inflow and infiltration sources and their subsequent rehabilitation. Over the last few years, this work has extended onto private property, with a renewed focus for holistically tackling I/I issues across public and private property.

Chris also has experience in urban and rural road design, the evaluation and design of storm water, water main, and sanitary sewer facilities, and report writing. Chris is responsible for design and construction coordination of various municipal engineering projects. In addition, he has served as a construction observer/manager for numerous utility and roadway construction/reconstruction projects.

Chris currently serves as the Town Engineer for the Town of Ixonia and Village of Raymond.

Project Experience

Sanitary Sewer Lateral Rehabilitation Projects (ongoing): Project manager and design engineer for all sanitary sewer private property projects at raSmith. Currently working on projects that address private sewer laterals, foundation drains and sumps on approximately 300 properties scheduled for bidding and construction in 2020.

MMSD Municipal and District PPII Program (ongoing): Subconsultant project manager for MMSD program that is intended to investigate private property rehabilitation technologies and uses by MMSD client communities. Responsible for developing master specifications for use in determining private property rehabilitation means and methods and help to ensure competition between varying technologies.

Sanitary Sewer and Lateral Rehabilitation (2018): Project manager and design engineer for CIPP lining of approximately 75 sewer laterals in the Village of Brown Deer and 150 laterals in the City of New Berlin.

Sanitary Sewer Dye Water Testing and CCTV (2011 through 2018): Project manager for sanitary sewer dye water testing and CCTV, including private lateral CCTV, for approximately 1,000,000 lineal feet of sanitary sewer pipe across multiple communities.

City of Brookfield (2012 through 2015): Subconsultant project manager to perform approximately 1,200 residential home inspections to verify presence of sump pump, foundation drain, and downspouts, in addition to each of their discharge locations. Project also included approximately 800 private sewer lateral CCTV and dye water injection testing on many of the same properties.

Charles A. Pape, P.E. — Lead Field Representative



Education

B.S. Civil Engineering, UW-Platteville

Professional Registration

Professional Engineer: Wisconsin

Chuck has more than 44 years of experience in the civil engineering industry, both as a consultant and as an employee with the Wisconsin Department of Natural Resources (WDNR). More than 30 years of his career was spent with the WDNR, serving primarily as the first point of contact for all Clean Water Fund sewer and drinking water projects in Southeastern Wisconsin.

He has been involved with all Clean Water-funded sewer interceptor projects in the MMSD service area for the past 20 years. Chuck's experience with the existing funding system at the WDNR provides a unique perspective on priority scoring and loan eligibility. Chuck has worked with raSmith for the past eight years, serving primarily on sanitary sewer and private property investigative and rehabilitative projects, coordinating work directly with private property owners on each project.

Project Experience

Village of Brown Deer Mainline Sewer and Lateral Rehabilitation (2018): Field engineer for the CIPP lining of 7000 feet of mainline sewer and 75 sanitary sewer laterals.

City of New Berlin Lateral Rehabilitation (2018): Field engineer for the CIPP lining of 150 sanitary sewer laterals in the Forest View subdivision.

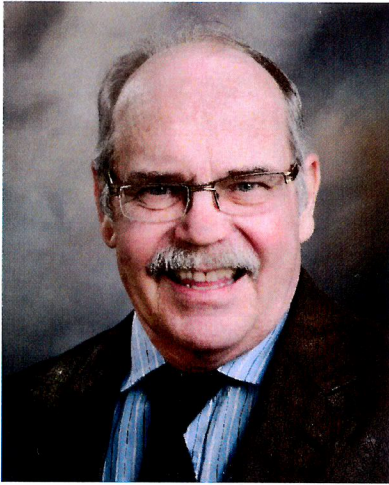
City of New Berlin (2013 and 2015): Field project manager for two separate projects that consisted of ditch and storm sewer flooding, in addition to both public and private sewer CCTV.

Village of West Milwaukee – Lead Water Service Lateral Replacement (2018): Coordinated and conducted initial property inspections to confirm presence of lead service lateral and gain permission for work on private property to complete the replacement of the lead service.

City of Brookfield (2012 through 2015): Coordinated and performed approximately 1,200 residential home inspections to verify presence of sump pump, foundation drain, and downspouts, in addition to each of their discharge locations. Conducted approximately 800 private sewer lateral CCTV and dye water injection testing on many of the same properties.

Sanitary Sewer Dye Water Testing and CCTV (2011 through 2018): Field inspector sanitary sewer dye water testing and CCTV, including private lateral CCTV, for approximately 1,000,000 lineal feet of sanitary sewer pipe across multiple communities.

Dennis R. Anderson — Inspector



Education

Civil Engineering Coursework,
University of Wisconsin–Milwaukee,
100 Credit Hours

Certifications

WDOT PCCI
IDOTPPCI
ACI
Nuclear Density

Dennis has more than 38 years of construction inspection and construction management experience in municipal, state highway, structures and MMSD projects. Dennis identifies and resolves inefficient operational processes, and is able to motivate crews to achieve production rates while maintaining high safety methods and practices. Even in hectic environments, Dennis is a clear communicator and uses his excellent follow-through skills to fulfill all administrative requirements from field activities.

At raSmith, Dennis provides highly effective leadership while managing complex projects, with a focus on detailed inspections to ensure safety, environmental compliance and full adherence to private sector, municipal and state clients. He collaborates with senior managers, key staff, and outside agencies and organizations on a daily basis. Dennis oversees field work at various construction sites and maintains schedules and corporate mandates.

Dennis has inspected numerous sanitary sewer, water main and road projects during his career. Below are a few samples.

Project Experience

Greenmeadow Sanitary Sewer Interceptor, City Of Waukesha: This project consists of 6,000 feet of open-cut sanitary sewer installation, 2,600 feet of sanitary sewer installation in a rock tunnel, 2,800 feet of directional drilling of a siphon under the Fox River and the demolition of two lift stations.

Washington County Fair Grounds, Washington County: This project included grading of a 180-acre site, the installation of sanitary sewer, water and storm sewer to the site and on the site. Also included grading and paving of roads and parking lots on site.

Victor Waste Water Treatment Plant, City of Victor, CO: This project involved construction of a new waste water treatment for the City of Victor.

City of Franklin: Inspected the installation of a 16-inch one-mile long water main.

City of Greenfield: Inspected all phases of the reconstruction of several roads.

Village of Fox Lake: Inspected the relay of a sanitary sewer and the reconstruction of two roads.

City of St. Francis: Inspected the reconstruction of six streets, including all the utility adjustments.

Village of Elm Grove: Inspected the construction of a stormwater relief tunnel that would stop the Village's downtown area from the flooding of Underwood Creek.

Project Approach

The City has been performing work on private property for some time now, and understands the importance of effective communication on these projects. Having the right person in this communication role is not only critical to the success of this project but also to ensure that City staff is not burdened with this role during construction. In our past experience, this communication correlates directly with the project's success. Success can be defined differently, but in this case the City needs a communicator that keeps property owners engaged and interested, and encourages additional participation to maximize the value to the City when performing this work.

All of the above reasons led to our hiring of Chuck Pape in 2011 after his retirement from the Wisconsin Department of Natural Resources. We were working with the City of Wauwatosa to implement dye water testing across their City, and knew that we would need the appropriate field inspector to properly navigate this project. Chuck seemed like the perfect match, and quickly became a trusted advisor to both our internal raSmith staff and the City of Wauwatosa.

The following year, the City of Brookfield was looking for a consultant to help them perform home inspections and complete dye water injection testing and CCTV of private sanitary sewer laterals. raSmith partnered with Brown and Caldwell as their subconsultant, with a focus on highlighting Chuck's ability to engage with residents as a focus of the proposal. When we started performing home inspections, around 200 properties had signed up. After Chuck began a door-to-door campaign in between scheduled inspections, the total inspection count ended up around 1,200 over the course of the construction season! Point being, having the right personality in the field is critical to making sure residents understand the importance of these projects, and their role in the overall success to the City.

But running a private property rehabilitation project is different than the above efforts, and requires a different level of organization and management of property owners. Reviewing the interest and agreement forms from the City indicates that a good amount of property owner information has already been gathered. Compiling property owner contact information (home and cell phone numbers, email, etc.) in a working spreadsheet is our first step in these projects. We want to make sure we can easily access this contact information when we need it, and have the ability to also access the signed signature forms and other special notes that exist for each property.

The above spreadsheet will be discussed at the pre-construction meeting, as it is another tool used to track communication with the residents, and also when important milestones of the project occur. These same milestones are also tracked in daily field inspection reports, but having them readily available is very important. Examples of milestone dates to track include: access agreement approval, each private property entry, lateral CCTV, contractor submittal review and approval, etc. This information provides an important record of communication and approvals, which can help resolve issues that can occur on projects like these, and also provides the City a record of when project-specific occurrences happened on each property.

Our attendance at the pre-construction meeting gives us the opportunity to notify the contractor(s) for how project submittals must be made. Submittals are often seen as an afterthought for some contractors, but provide an important step for the City to ensure they are getting the product they specified. This step may also offer a decision point on whether or not the proposed improvement can be accomplished or be justified. Because the funding of these projects is coming from both the WDNR and the MMSD, it will be important to track the submittal reviews and approvals.

Project Approach (continued)

Proper submittal review has a new level of importance with the funding agencies involved in this project. Recently, resins used by a local lateral CIPP contractor and their supplier have led to issues during CIPP installation and premature failures of some CIPP lines. A review of procedures indicated that identifying this resin early in the submittal process should be done to ensure its proper use and that proper procedures are followed when prepping and inserting the liner.

The snapshot to the right is an example of a contractor submittal the day of a lateral CIPP lining. This submittal serves as a record of the material used for the specific installed liner and a measure of QA/QC by the contractor to ensure their crews are following the proper procedure. We have been fortunate that the CIPP contractor in our area follows QA/QC procedures like this, as it is a good policy. Understanding what is included on this sheet will be critical when working with another contractor, as we'd need to make sure they are being held to the same level of standard.

Note: raSmith is a subconsultant for both the Municipal and District PPII projects for the MMSD. We are directly involved with the preparation of master specifications being developed for all private property improvements. Another role we serve on these teams has also been to train local municipal staff and consultants on how to properly perform construction inspection services for these private property improvements. The City of West Allis attended the training this past year. In the near future, we believe that the MMSD will be requiring all municipalities utilizing funding through the MMSD to have an inspector complete this training process to ensure project consistency across the entire service area. We are fortunate to have Chuck already part of our team, as the MMSD trusts his judgement enough to empower him as a trainer.

We envision Chuck being our main liaison between the City, contractor(s), and property owners, while also serving as a construction observer. Chuck has varied experiences throughout his career and he will work closely with other members of our construction services staff to ensure qualified personnel are always present for the work that occurs. Dennis Anderson has been included as an additional inspector for that direct reason.

Dennis has vast experience in his 40-year career, working on variety of projects that have varied in complexity. He recently performed construction inspection for lead water service lateral replacements in West Milwaukee that uses the same WDNR funding that the City will utilize on this project. Where Chuck is considered more of an expert on private property improvements, Dennis brings a level of expertise and experience on public and private improvement projects that ensure we will always be properly representing the City throughout various project aspects.

EMK TECHNOLOGIES T-Liner CIPP Processing & Q/C Log

Client: Musson Brothers Date: 6/26/18 Job #: 318107
 Inspector: Y J N Address: 13655 Park Ave

Existing Line Information:
 Main Lined: PE CIPP PVC/FF Spiral wound Other _____
 Main Not Lined: VCP PVC RCP Transite ACP Other _____

LSE / PSE: _____ Location of lateral / sect from the USMH: @ _____
 USMH# _____ Flow Direction: →→→ DSMH# _____

Depth: _____ Flow (L) M H Bypass Y (N) _____ Depth: _____

Materials:

T Unlined
 Inflation 7-8 PSI
Musson Brothers
 8UL x 6.00" x 31' 3"
 Trans: 4.00" x 52' 4"
13655 Park Ave
 5 Pails @ 30.00 lbs.

26784 1
 Catalyst @ 2.500 % 345.19 grms
 Promoted @ 0.200 %
 23cx4.5x13cxskv2xt/pu/hh 6/14/18HB

Note Items:
 De-Root
 Tuberculation Removal
 MOT Required
 Protuding Tap
 Protuding Tap Removal
 Infiltration: None Outside Interior
 Cleanout Plugged: Yes No
 Resident Notified: Yes No
 Issue w/ resident? _____

Lateral Length/Chamum
 Ordered Length: 83.7
 Installed Length: 83.7
 Trim: _____

Mixing				Installation				Curing			
Temperature		Time		P.S.I		Inversion		Truck		Time	
Time	Rein Ambient	Pipe	Inserted	Invert	Lowest	Highest	Time	Temp.	P.S.I	Comp.	Time back in service
<u>11:30</u>	<u>75</u>	<u>46</u>	<u>100</u>	<u>10</u>	<u>6</u>	<u>23</u>	<u>110</u>	<u>275</u>	<u>7</u>	<u>2135</u>	<u>2140</u>
Comments on Mixing				Comments on Installation				Curing Comments			

Crew on site: 7 AM / PM Number of Employees: 5

Before Video: Main: Yes No Lateral: Yes No
 After Video: Main: Yes No Lateral: Yes No

Installation comments: _____

Superintendents Signature: _____

White Clay: Install Office Yellow Clay: Billing

Project Approach (continued)

All of our field inspectors complete daily electronic reports using raSmith's COMPAS (construction observation management—project automated system) as shown in the examples below. These reports are created to not only log daily activities of the contractor and project but also to create a real-time summary of project quantities and as-built information. The sheets below are taken from the West Milwaukee lead water lateral replacement project.

CREATIVITY BEYOND ENGINEERING

Daily Project Events Report

Day & Date: Monday, October 02, 2017

Project: Water Main Relay and Lead Lateral Replace Client: City of West Milwaukee

Project Number: 1162814

Engineering Firm: R.A. Smith National, Inc. Contractor: Mid City Plumbing & Heating, Inc

Report By: Dennis Anderson Sub Contractor: _____

Project Type: Water Weather/Temp - AM: Clear-63

Project Type Detail: _____

Erosion Control Status:

In Place

Activity for the Day: (Comments)

The contractor relay the water s... the basement to the terrace area... 1037, 63'-0" 1" copper installed.
Note: At 1037 I did the preconstr... the needed paper work to the V...

Items Used Today

Item No.	Bid Item
-	7. 1" Dia. Copper Water
-	8. 1" Corp.
-	9. 1" Curb Stop and Box
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-

Plan Sheets Used Today -

Signature of Site Representative: _____

Water Main Relay and Lead Lateral Replace

Mid City Plumbing & Heating, Inc

Daily Project Events Report Section 2 - 10/2/2017

By: Dennis Anderson/ R.A. Smith National, Inc.

P.N. 1162814


Daily Project Events Report Section 3 #REF!

By: Dennis Anderson/ R.A. Smith National, Inc.


P.N. 1162814

Daily Project Events Report Photos

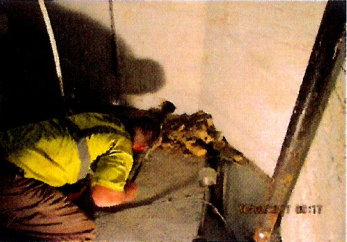
Excavating Main




Tapping Main



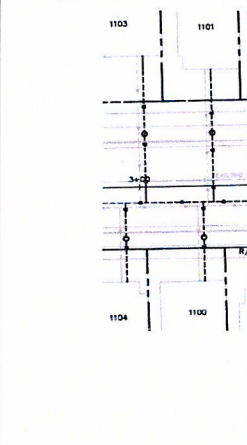
Drill Hole in Basement 1038



Boring



Daily Drawing



Project Approach (continued)

These inspection reports are submitted daily to raSmith construction managers and assigned stakeholders for the project. These stakeholders can include interested parties at the WDNR and MMSD, which may help satisfy a requirement from each of these entities at final funding reimbursement.

This daily record should satisfy the City's requirement for daily field reporting duties that include, but are not limited to, field notes, reports, quantities, photographs, electronic data collection, electronic data recording, and materials inventory. This report may also satisfy an as-built requirement, but separate as-built preparation could be necessary, and will be delivered, when requested by the City.

We understand that the City Building Inspection Department and DPW Water Division also have an inspection role. These entities will become part of the coordination effort to ensure they remain notified of the progress (could be included on select daily inspection reports to trigger an inspection on their behalf), and also to ensure we have record of the contract satisfying these permit requirements as part of the overall project delivery. Although these inspection departments will be present during parts of construction, the items installed will still need to be tracked and accounted for by our inspectors as part of final payment to the contractors.

We will provide QA/QC oversight (inspection) for private property construction improvement after substantial completion of the project. These inspections typically include a selection of the improvements and involve air testing of new pipe and/or CIPP, hydrostatic testing of cleanouts, review of CIPP lining field reports, review of CIPP or CCTV video and reports. A new procedure may also involve the review of CCTV video for lateral repairs and rehabilitation sometime after construction and into the warranty period. As mentioned earlier, recent resin changes in the CIPP industry have now prompted additional CCTV inspection to ensure we receive the product that was specified.

All of our construction inspectors have a thorough understanding of contract specifications and the Standard Specifications for Sewer & Water Construction in Wisconsin. In fact, Pat Zimmer was on the committee that produced the current edition, and we now have others sitting on the committee to provide a future update. Our involvement in that committee extends into the training we provide for our staff to make sure we hold all of our projects to this necessary standard.

Lastly, we have included Chris Stamborski in this project as a program consultant due to his extensive and varied experience with these programs. If necessary, he will offer design-level services that draw from his experience and perspective, as his direct representation of communities helps to give him an owner's perspective on how these projects need to proceed.

We hope that the City finds value in the experience, expertise and perspective that raSmith provides for a project like this. We also look forward to working together to make this project a success for the City of West Allis, as well as an example for other communities to follow.

Hourly Fee Schedule

The City of West Allis stated that the consultant should assume, for the purpose of this proposal, that there will be 216 days of work, with 3,456 man hours required by the inspector to accomplish this work.

raSmith proposes to provide professional services at the fixed hourly rates shown in the following table. These rates will be applied to all project-related time, regardless of the specific time of day or day of the week the project effort is conducted. We agree that rates beyond 2019 may be negotiated if desired by the City. All work on this project will be performed by raSmith staff, with no subconsultants.

raSmith Team Member		Hourly Billing Rate 2019	Hourly Billing Rate 2020
Project Manager	Pat Zimmer, P.E.	\$160	\$165
Program Consultant	Chris Stamborski, P.E.	\$163	\$167
Lead Field Representative	Chuck Pape, P.E.	\$90	\$93
Inspector	Dennis Anderson	\$85	\$88

For the purposes of this proposal, both Pat and Chris would have very limited time and effort for the delivery of this project unless directed differently by the City. With that, assume that the rates for Chuck and Dennis will be the rates utilized throughout this project.

Cost Breakdown (per 8/26/2019 City request email)

The City requested additional clarification on the following issues in an email correspondence dated 8/26/2019. Please consider the following:

Hourly Breakdown of Costs Based on 216 days of work, or 3,456 man hours

- Project Administration/Management—Pat Zimmer/Chris Stamborski (~ 2 hours per week)
 - (~2.5%) - 86 hours * \$165/hour = \$14,190.00
- Lead Field Representative—Chuck Pape (~ 11 hours per day, entire span of project)
 - (~70%) - 2,400 hours * \$93/hour = \$223,200.00
- Secondary Field Representative—Dennis Anderson (~ 50 hours per week, 19-20 weeks of project)
 - (~27.5%) - 970 hours * \$88/hour = \$85,360.00
- Totals—3,456 hours—\$322,750.00
 - Average Hourly Cost of \$93.39/hour

Not to Exceed Estimate

Our past experience with PPII projects has resulted in construction inspection costs around 10% of project construction cost when we have managed singular PPII improvements (i.e. sewer or water lateral replacements). This level of effort is mainly due to the coordination efforts related to managing individual property issues and concerns in concert with maintain contractor and City concerns as well. However, this project could include up to three separate projects per property (i.e. sewer lateral, sump pump retrofit, and lead service lateral replacement), and includes additional administrative functions that will require additional time and management considerations. With that, a 20% construction-related services cost compared to overall construction cost is probably more representative when predicting cost, assuming some economy of scale due to project overlap. With that, consider the following:

- City of West Allis Provided Construction Cost Estimate—\$829,000
 - Add a 15% construction cost contingency—\$953,350
 - 20% of the above = \$190,670—Estimated Cost of Construction Related Services
 - \$190,670 / \$93.39/hour = ~ 2,040 hours

The above translates to the following:

- Project Administration/Management—Pat Zimmer/Chris Stamborski (~ 2 hours per week)
 - (~3%) - 60 hours * \$165/hour = \$9,990.00
- Lead Field Representative—Chuck Pape (~ 7 hours per day, entire span of project)
 - (~70%) - 1,430 hours * \$93/hour = \$132,990.00
- Secondary Field Representative—Dennis Anderson (~ 50 hours per week, 11 weeks of project)
 - (~27%) - 550 hours * \$88/hour = \$48,400.00
- Totals—2,040 hours—\$191,380.00

The above may be a bit conservative yet, but is probably more realistic than assuming full time inspection is needed from October 2019 through mid-August 2020. An average of 7 hours per day will allow Chuck to work the 10 plus hours days needed during the peak of activity, and less when not necessary. \$191,380 would be our not-to-exceed cost for this project based on the information provided.

Expenses

Our only anticipated expense will be mileage. The eastern side of the City is approximately 10 miles from our Brookfield office. Assuming a round trip, and potentially 10 additional miles per day, we can assume 30 miles per day for the life of the project. There will be days when two separate trips are generated by our inspectors as well. Assuming this over the potential life of the project, our overall expenses should not exceed \$5,000.