

Architectural Engineering  
 Chemical Engineering  
 Civil Engineering  
 Computer Science  
 Control Engineering  
 Construction Engineering



Environmental Science  
 Electrical Engineering  
 Mechanical Engineering  
 Process Engineering  
 Structural Engineering  
 Water Sciences

End of Summer Report

October 2010

RISE is a component of the Milwaukee Metropolitan Sewerage District Workforce Development Training and Placement Program

The Milwaukee Metropolitan Sewerage District (“MMSD” or the “District”) has long supported developing businesses and workers in the Greater Milwaukee area, through goals for contracting with local, small, minority and women-owned businesses; encouraging mentor-protégé relationships among large firms and small ones; and its Workforce Development Training and Placement Program, which develops disadvantaged firms, identifies future construction managers from underrepresented populations and trains a labor force from a similar population.

In 2009, MMSD added to these programs the Regional Internships in Science and Engineering, or “RISE” program. RISE seeks college students from the Greater Milwaukee area who are pursuing careers in science and engineering fields and matches them with current or prospective MMSD consultants and contractors. The students work for the firms over the summer, and in many cases, during the school year as well. RISE students may attend any accredited college or university, but must have resided in MMSD’s Sanitary Sewer Service Area (SSSA) at the time of their high school graduation. The SSSA includes Milwaukee and several surrounding suburban communities.

The RISE program is managed by Prism Technical Management & Marketing Services, LLC “Prism”, a

Milwaukee-based consulting firm which patterned the initiative after successful private sector college intern talent development programs, such as Inroads, which has been listed by The Princeton Review and Vault.com as one of the best internships in America.

In addition to paid internships, the students receive a significant amount of training in soft and hard skills both prior to being interviewed and hired, as well as after.

Thus far, 10 firms have participated in the program: AECOM, JF Ahern, Donohue and Associates, GRAEF, WasteCap Resources, Pieper Power, Rawson Contractors, HNTB, SEH and Mechanical, Inc.



While the program is race and gender neutral, MMSD has ensured that underrepresented populations have ample opportunity to participate. Of the ten students employed over the first 2 years, six are African-American, one is Asian-American and one is a woman.

The goal of the program is to ensure that science and engineering students from the Greater Milwaukee area, especially those from underrepresented populations, get an opportunity for experience, are connected with local firms, and show the firms and themselves their capabilities, hopefully leading to a professional relationship upon graduation.

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RISE Intern and UWM Electrical Engineering student, Chris Johnson, deep in thought as he prepares a self assessment during the summer training.

# CORPORATE *Partners*

The logo for AECOM, featuring the word "AECOM" in a bold, blue, sans-serif font.

**AECOM** is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental and energy.

Intern: Mr. Jon Christiansen, Jr., Marquette - Civil Engineering



**J.F. Ahern Co.** works for facility owners and general contractors, designing, building, and maintaining systems relating to people's health, safety, and comfort. Its services include energy solutions, fire protection, HVAC, industrial/process piping, mechanical service, pipe fabrication, plumbing and water/wastewater equipment fabrication and installation.

Intern: Mr. Chadd Lane, UWM - Mechanical Engineering



**GRAEF** provides engineering, architectural, testing, inspection and other consulting services to clients in a variety of fields, including education, transportation, municipal, infrastructure, healthcare, industrial, bridges and planning / urban design.

Intern: Mr. Ricky Cooks, UWM - Electrical Engineering



**HNTB** provides infrastructure delivery services in transportation, buildings and other areas, addressing issues such as financing, legislation, design, construction, community outreach and ongoing operations through civil engineering, architecture, planning, construction management and more.

Intern: Mr. Johnathan Pringle, Western Michigan, Engineering

# INTERNS

## Local Talent



**W**orking with the RISE program and AECOM was a very positive experience for me. During my second year as a summer intern, I reinforced my knowledge and experience with certain procedures and my supervisors at AECOM gave me additional responsibilities. I feel that the increased amount of

responsibilities given to me helped me take my work experience to the next level. The people at AECOM are friendly and excellent people to work with. The RISE program was also very beneficial for me. From the training sessions I attended, I learned valuable communication skills and how to take an internship to the next level. The combination of working for AECOM with RISE assistance was a valuable experience that I would recommend to any engineering student to pursue. (Marquette)



**M**y summer consisted of getting an amazing internship with a great company. My internship experience with J.F. Ahern has been wonderful -- I have learned so much about understanding piping schematics, project management and how to communicate within the workplace. Before working at J.F. Ahern, I had no real idea what working with

MMSD was really about, but now I understand a great deal about all that the District does. I now understand the designs of piping, the different equipment used, about the safety precautions, how to work with subcontractors and I had the opportunity to actually see construction of a current project in progress. I have really enjoyed this summer working for J.F. Ahern. All of the employees were so friendly and made me feel so welcome. J.F. Ahern is great place to work and I would definitely recommend J.F. Ahern to friends. (UWM)



**T**his past summer I was given the opportunity to work with GRAEF, a project consulting firm. This experience was especially beneficial for me because I had the privilege of working in the field and in the office. While in the field, I worked at what is called the Century City site, a project initiated by the City of Milwaukee to renovate one of the old Tower Automotive

buildings. I assisted the project manager, essentially being his eyes and ears on the site when he couldn't be there. While in the office, I was able to get a feel of office life. It was like a small town - although there were many employees, everyone seemed to know everyone else. I also got a feel of the design side of engineering. One of the biggest challenges (and most rewarding experiences) was being able to translate what I saw in the renovation drawings of Century City to what I saw in the actual construction. Being able to watch a construction project grow before your eyes is pretty cool, too. (UWM)



**M**y internship with HNTB was one of the most rewarding experiences I've ever had. It honestly exceeded all my expectations. From the first day I arrived on the job, I felt like a new employee and not just an intern. The other employees were more than willing to explain the projects they were working on and offer a part of the work load to me.

This is what I found to be the most valuable, finding out what goes into major engineering projects and seeing how different groups and agencies work together to finish a job. (WMU - Western Michigan University)



**Mechanical Inc.** is consistently recognized as one of the top 50 mechanical contractors in the United States, offering a full range of mechanical design and construction services.

Intern: Mr. Zeke Tessmer, MSOE - Architectural Engineering



**Pieper Electric** is a dynamic 60 year old electrical and mechanical company serving residential, commercial and industrial clients throughout the State of Wisconsin and Minnesota.

Intern: Mr. Christopher Johnson, UWM - Electrical Engineering



**Rawson Contractors, Inc.** is a multi-disciplined sewer, water and site contractor which provides mainline sewer and water installation and general contracting services with regard to subdivisions, site work for building projects and highway work.

Intern: Mr. Andrew Trang, UWM - Mechanical Engineering



**Short Elliott Hendrickson Inc. (SEH)** is a multidisciplined, single-source consulting firm of engineers, architects, planners and scientists. They specialize in civil works, transportation, environmental, and energy work.

Intern: Ms. Jade Woodruff, UWM - Architecture



**WasteCap Resource Solutions, Inc.** provides waste reduction and recycling assistance for the benefit of business, government and the environment. Its services include construction waste management, accreditation in construction and demolition recycling, and waste and recycling assessments.

Intern: Mr. Stephen Panaro, MSOE - Architectural Engineering

*Local Interns (continued)*



**M**y experience at Mechanical, Inc. over the past two years has been excellent. There is not a day that goes by that I do not learn something new, and my thirst for knowledge in both the specific industry and regarding the working world in general has been remarkably satisfied. Everyone that I have worked with has always

helped me to better understand things whenever I have questions, and will even take me aside to show me things they think I may be interested in. This aspect of the people I work with has created a pleasant experience for me, and I make every attempt I can to return this favor. I am happy to work with the people I work with. (MSOE)



**W**orking at Pieper for the past 3 months has been both a privilege and a challenge. I was privileged enough to work with one of the top electrical construction firms in Wisconsin. I was challenged by the daily tasks needed to ensure success for both myself and for those that I worked

for and with within the company. By working for Pieper again this summer, I have gained a greater appreciation for the amount of hard work and dedication it takes to work in this particular industry. This summer, that worked ranged from pre-bid meetings in distant cities to going down to a jobsite to assist a project foreman. Moreover, I can honestly say that working at Pieper has, allowed me to grow both as a person as well as professionally. And that is something that I will always be grateful for. (UWM)



**T**he experience I had with Rawson Contractors was great. I performed duties in the office as well as out in the field. When I first started, I primarily filed paperwork and ran errands to job sites. As I became more acquainted with Rawson and their work, I performed more significant tasks, such as doing submittals, change

orders, ordering products, and helping with bids for jobs. I also went out to pre-bid meetings to understand more about certain qualifications and city needs. Out in the field, the project I was involved in is the Milwaukee Pump Station. I helped check over 90 pump stations monthly to make sure they were functional. We opened cabinets in Milwaukee and read the voltages, amps, and other signs to see if the pumps operate. While performing tasks, I ask questions regarding the wiring and unfamiliar equipment in order to understand and gain knowledge. (UWM)



**T**his past year has been another great one filled with tremendous learning opportunities at Short Elliott Hendrickson. While interning with SEH through the RISE program, I've had the chance to work on highway designs, to study and do field work with local rivers and creeks and also work on a construction site.

Recently I have been able to expand my CAD skills as I've worked on various projects within the company. Overall my time with SEH has been one that has helped me grow in life as well as within my knowledge of the field. My supervisors have continued to go above and beyond to insure that I am stretched by introducing me to different aspects within engineering. Overall, this internship has been an incredible experience; one with great people and amazing opportunities and I am looking forward to all the knowledge that has yet to be gained with them! (UWM)



**M**y experience with WasteCap has been great. At first I didn't know much about the deconstruction process, but the people here have been great at answering any and all questions that have come up and they've been really supportive as I "learned the ropes." In just a few months of

hands-on experience at WasteCap, I feel as though I've learned more than what I could have from just taking classes or listening to lectures. The networking that I've been able to do has been very beneficial as well; I've met quite a few industry professionals who have been wonderful to work with as well. (MSOE)

# Intern Training

In addition to employment, the RISE program includes several training exercises for the students. All students who meet the program qualifications and are selected for the talent pool are invited to an all day training session shortly after the end of the Spring semester. The

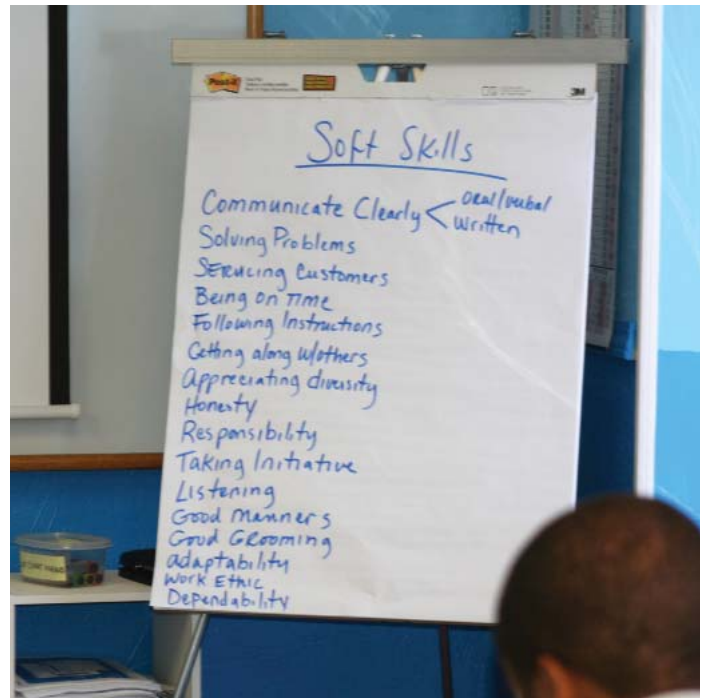


event is held at the end of the school year to allow out-of-state students the opportunity to participate. Planning is underway to allow out-of-state and even out-of-country students (such as those spending a semester abroad) to participate via webcam or Skype so that the event may be held earlier in the school year to allow for the internships to start earlier.

During this initial training, students are prepared for their upcoming interviews with employers. The training focuses on interviewing skills, résumé development, first impressions and more.



Top Image and counterclockwise: (1) Instructor Denise Patton of BDP & Associates facilitates a self assessment exercise. (2) Prism CEO, Randy Crump, in mid expression, addresses 'construction scheduling and the resulting pressures.' (3) Interns share their thoughts on overcoming challenges going beyond what is expected. (4) J F Ahern intern, and UWM Junior - Chadd gets down to business. (5) Soft Skills course topics.



There is additional training that takes place after the students and employers have been matched with one another following the interview period.

Two weekends of training take place, with students in training all day Friday and Saturday. Employers are encouraged to pay the students for their time at the Friday training, but it is not required.



***“Life is ten percent what happens to you and ninety percent how you respond to it.”***

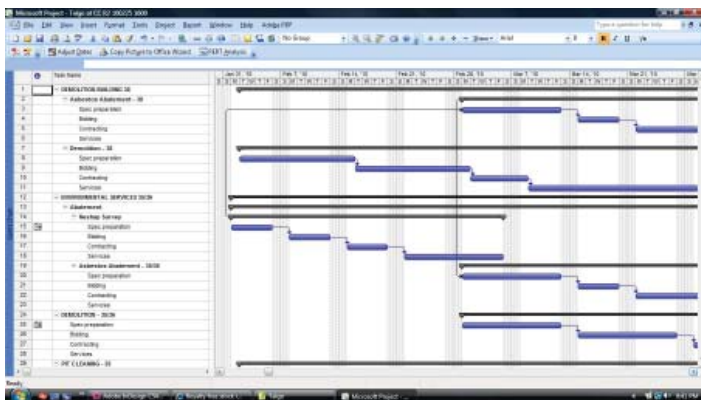
*- Lou Holtz*

The training includes:

- Written and Oral Communication
- 10 Things Your Employer Wants You to Know
- Working as an Engineer
- Overview of MMSD Operations
- Responding to Requests for Proposals
- Contract Law
- Dressing for Success
- Project Management
- Advanced Software Utilization
- Time, Money, Quality, Safety and Stress
- Obtaining a Permanent Professional Position
- Tour of MMSD Treatment Facility
- Etiquette

Training elements include speakers, written exercises, motivational and instructional videos and group discussion.

### Microsoft Project Management Training

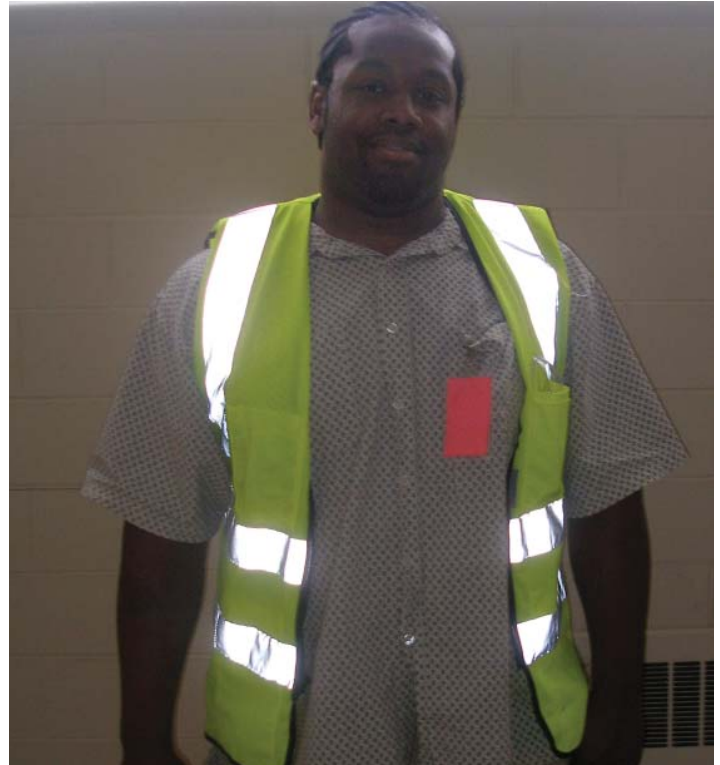


First year RISE students get a crash course in Gantt Charts and Project Management.

### Intern Experiences

RISE students get a broad overview of engineered construction projects, either from the perspective of a consulting engineer or construction contractor.

The interns are quickly plunged into challenging and meaningful roles. Students and employers report interns actively engaged in various aspects of project cost and time estimating; schedule management; supervision; data entry; document manipulation and control; and general project organization. Students have shown a sincere dedication to learning in their new roles and earning the opportunity for more responsibility and exposure in their fields.



Images: Top - Johnathan Pringle meticulously enters data while at work with HNTB; Ricky Cooks, an intern with GRAEF USA, at the Century City site assisting in the redevelopment of the old AO Smith/Tower Automotive complex; Jade Woodruff (2009 image) engaged in a watercourse project with employer SEH.

# End of Summer Recognition



Celebrating nine great students from the metro region, headed back to college and our corporate partners -- some of Wisconsin's finest contractors and consultants.



Participants at the end of summer Intern celebration listen to MMSD Commissioner Wallace White explain the importance of the MMSD RISE internship program. In this image: Ken Grebe, Graef USA; Ghassan Korban, City of Milwaukee Department of Public Works; Denise Patton, BDP & Associates; Ashley Booth, HNTB; Dr. Herman Viets, Milwaukee School of Engineering; Benjamin Timm, Redevelopment Authority - City of Milwaukee; Commissioner White; Lafayette Crump and Joann Crump, Prism Technical. Backs to the camera - RISE Interns, guests and parents.



## End of Summer Event

This year, the success of the RISE students and the commitment of MMSD and the employers were celebrated on August 31, 2010 at The Rock Bottom Restaurant & Brewery along the Milwaukee River in downtown Milwaukee.

In attendance were representatives from MMSD, the RISE students, their parents and loved ones, each of the RISE employers, and other local business owners, executives, public servants, recent engineering graduates and prospective RISE students.

The students discussed their summer experiences and the employers were uniform in their praise for the students. Each student and employer received a RISE branded padfolio to commemorate the event and the program.

Many of those who spoke commented on the wealth of talent that exists locally and lauded the District for its commitment to developing the next generation of engineers and scientists from the Greater Milwaukee area.

Top to bottom images: (1) Randy Crump, Prism CEO, introduces representatives from Short Elliott Hendrickson Inc. (SEH) and their second year intern Jade - a UWM architectural student. While Jade worked for SEH last summer and part time during the first part of the school year, she spent much of her last semester studying abroad in France. (2) Andrew, a UWM Mechanical Engineering student and RISE intern discusses his summer experience with those present, (3) After his introduction, Chadd talks about his experiences working for JF Ahern while representatives of the company and others look on. (4) Zeke, a rising senior Architectural Engineering student at MSOE and RISE intern shares a moment with Scott Solverson of AECOM.



# Corporate Partner Comments

The following comments are from employers evaluating the students. Employer and student names have been replaced by “\*\*\*.”

“\*\*\* is a quick study. He \*\*\* was able to be trusted with tasks far beyond the typical intern.”

“The RISE program was a good experience overall. \*\*\* is a very responsible student and has been an excellent intern for us. \*\*\* should do well once \*\*\* graduates and enters the work force.”

“The RISE experience was good for our company. I think it showed ways our company needs to improve.”

“The RISE program was beneficial from the standpoint that we get to ‘test drive’ a student before going through the hiring process. Also, this is the second year that \*\*\* has worked with us and I got to see the change that has taken place in \*\*\* over the year. This year \*\*\* was much more confident and willing to take things on.”

“Our experience was very positive. You were able to present many superb young people. \*\*\* represented the program in a very professional fashion.”

“It is refreshing to see a pro-active effort in personal development that sets high standards and supports positive behavior.”

“Our experience was excellent! This is a great program and I am hopeful that \*\*\* can participate in the program in 2011. The program has a positive impact on young aspiring students, our staff directly involved with the students/program and with helping the Region attract and retain young talent.”

## BECOME A CORPORATE PARTNER

An employer information session will be conducted in early Spring, 2011. If you are an employer who is interested in learning more about the RISE program, please contact:

### Lafayette Crump

Chief Operating Officer

Prism Technical Management & Marketing Services, LLC

6114 W. Capitol Drive, Suite 200

Milwaukee, WI 53216

414.847.0990 X 103

lcrump@prismtechnical.com



Above: Andrew, an Intern for Rawson Contractors engaged in the field assisting in the onsite supervision and observation of completed work. Below: Jon, an intern with AECOM, greets a co-worker in their downtown office. Like other students, Jon was both in and out of the office during his internship.



# Get more RISE Information

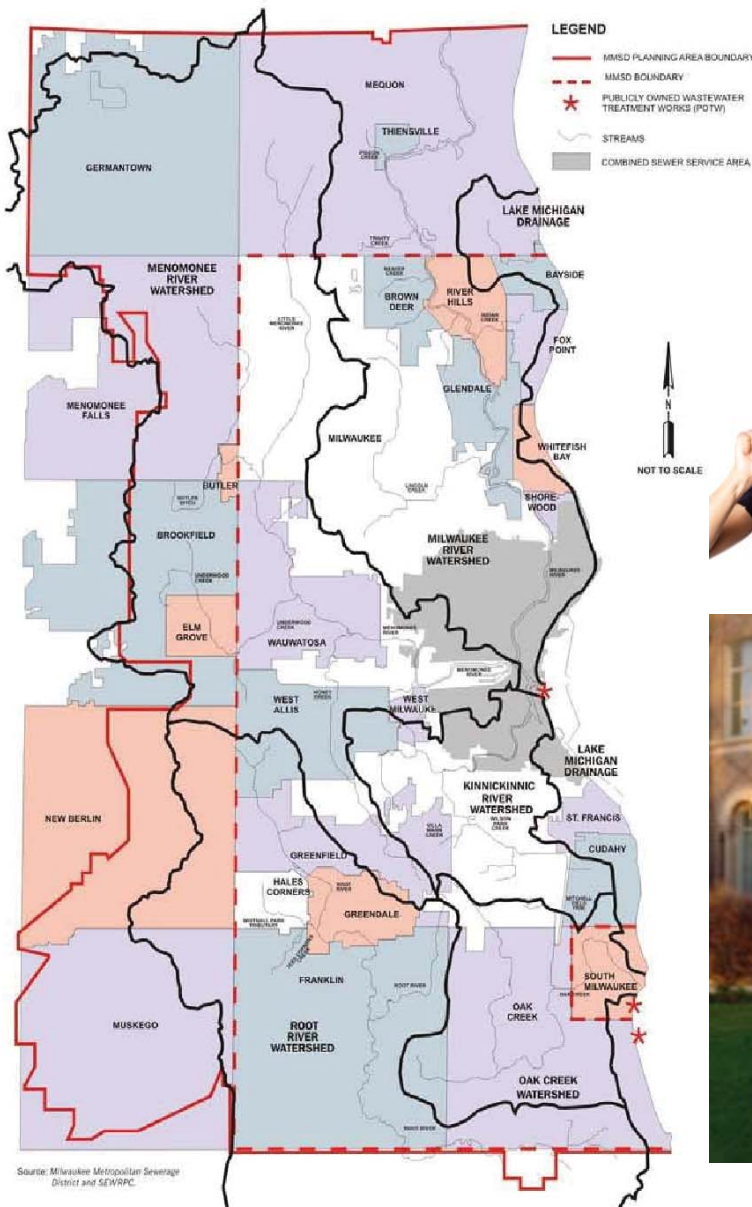
If you are, or know, a student interested in the RISE program, now or in the near future, please complete page one of our application on the last page of this report. If you are eligible for RISE we will send page two, requesting references. You may also go online for more information. Applications are accepted throughout the year. Formal acceptance as an intern is dependent upon the availability of Internships, interviews with potential employers and acceptance of a RISE Internship job offer.

If you are interested in hosting a RISE informational session at your college or university, or would like additional information for yourself, please contact us using the information below. Thank you.

**Lafayette Crump**  
**Chief Operating Officer**  
 Prism Technical Management & Marketing Services, LLC  
 6114 W. Capitol Drive, Suite 200  
 Milwaukee, WI 53216

414.847.0990 X 103 /Phone  
 414.847.0992 /Fax  
 lcrump@prismtechnical.com /Email  
<http://www.prismtechnical.com/PTI.html>

MMSD Sanitary Sewer Service Area (SSSA)



*If you've been waiting for opportunity to knock, this is your chance. There are only a limited number of internships. If you lived inside the boundaries of the MMSD Sanitary Sewer Service Area (SSSA) map on the left or, if you attended high school there, you've passed the first test. RISE students work in a variety of fields, gaining invaluable knowledge about their chosen careers.*



If you would like to use your computer to complete this application, go to:  
<http://www.prismsystem.com/PTI.html> (Scroll down to RISE APPLICATION)

**The Milwaukee RISE Initiative**  
**APPLICATION FOR ENGINEERING INTERNSHIP**

The RISE Initiative is sponsored by the Milwaukee Metropolitan Sewerage District (MMSD). MMSD, however, is not responsible for the management, employment, retention, or termination of students. RISE was developed to assist in reducing the shortage of minorities studying and completing their education in the fields of science and engineering and ultimately gaining professional employment in the region. Student interns will be interviewed and employed by independent consultants and contractors, each representing that they are equal opportunity employers, who agree not to discriminate on the basis of race, religion, color, national origin, age, sex, gender, disability, sexual orientation or any other characteristic protected by law. The purpose of the initiative is to expose students from the Milwaukee area and potential employers to one another, in an effort to develop a long lasting, mutually beneficial professional relationship.

**INTRODUCTORY INFORMATION:**

Student Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Current Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Email: \_\_\_\_\_

**APPLICANT QUESTIONS:**

Internship types: (A) Consulting  (B) Construction  (C) Administrative  (D) Project Management  (E) Any   
Internship Desired (1) \_\_\_\_\_ (2) \_\_\_\_\_

If hired, can you provide documents required to establish your eligibility to work in the U.S.? Yes  No

Available Summer Dates: \_\_\_\_\_ to \_\_\_\_\_ Are you 18 years of age or older? Yes  No

How were you referred to Prism Technical Institute? \_\_\_\_\_

Have you ever been convicted of, or pled guilty or no contest to, a crime other than a minor traffic violation? Yes  No

*If yes, please explain in detail on a separate piece of paper and include the date of final disposition of the case and the nature of the offense. This information will not necessarily disqualify you from employment but false or misleading information will. Factors such as age, time of the offense, seriousness and nature of the violation, and rehabilitation will be taken into account.*

**EDUCATION:**

**College or Technical School**

College or University Name: \_\_\_\_\_  
Major Course of Study: \_\_\_\_\_ GPA: \_\_\_\_\_ Cum GPA: \_\_\_\_\_  
College Address: \_\_\_\_\_ City \_\_\_\_\_ ST \_\_\_\_\_  
Total Credits Needed to Graduate: \_\_\_\_\_ Credits you will have earned, as of this coming June 1st \_\_\_\_\_  
Expected College Graduation Date: \_\_\_\_\_ Degree/Diploma: \_\_\_\_\_

**High School**

Name of Milwaukee Area High School: \_\_\_\_\_ Last Grade Completed: \_\_\_\_\_  
High School Address: \_\_\_\_\_ City \_\_\_\_\_ ST \_\_\_\_\_  
Course of Study: \_\_\_\_\_ Year of Graduation: \_\_\_\_\_  
Degree/Diploma area: \_\_\_\_\_ GPA: \_\_\_\_\_ Cum GPA: \_\_\_\_\_  
Dates Attended From : \_\_\_\_\_ to \_\_\_\_\_

**Other Technical Training**

Name: \_\_\_\_\_ Credits Earned: \_\_\_\_\_  
Course of Study: \_\_\_\_\_ Years Attended: \_\_\_\_\_  
Degree/Diploma area: \_\_\_\_\_ GPA: \_\_\_\_\_ Cum GPA: \_\_\_\_\_  
Dates Attended From : \_\_\_\_\_ to \_\_\_\_\_

