

OUTSIDE PLANT DESIGNER

How to Apply

Please note: this is a term-limited position for a duration of three (3) years from the date of hire with the possibility of extension; all of which is dependent upon the availability of work and funding.

To apply for this position, please include a copy of your resume & a cover letter (this should be the first page of your resume) -- click the **Apply Now** button above.

The salary for this position will be a minimum of \$65,000 annual. Salary will be commensurate with the qualifications, experience, and education of the selected candidate.

Job Summary

Come join a team of passionate and hard-working individuals at a non-profit serving Michigan's public universities, colleges, K-12 organizations, libraries, state government, healthcare and other Michigan non-profit organizations! This position will be an integral part of the Merit team.

Merit is seeking an Outside Plant Designer to join our team in supporting outside plant operations. The Outside Plant Designer will be responsible for detailed design of Outside Plant (OSP) elements (aerial and underground) and producing permitting and designs of proposed telecommunication networks. The Outside Plant Designer is an integral part of the OSP team and will design networks using a variety of tools, ensuring constructability issues, applicable standards and governing authority requirements are incorporated into the network designs. The Outside Plant Designer interfaces with vendors and governing authorities as well as Merit staff including Outside Plant (OSP), Technology Operations, and 24x7 Merit Support Center teams.

The Outside Plant Designer reports to the Director of Business Process Management – Outside Plant and works under general supervision to plan, conduct and at times, supervise outside design builds and updates. The ideal candidate will have outside plant engineering and construction technical skills; planning, organization, execution, and negotiation skills.

To learn more about Merit, visit our website: <https://www.merit.edu>

Responsibilities*

Essential functions for this position are followed by an (E).

As the Outside Plant Designer, this position's key responsibilities include, but are not limited to, the following:

Outside Plant Design & Change Management (50%).

- Layout and design telecommunication network elements in accordance with the network design criteria, including route selection, fiber cable plant design, splicing design, construction technique identification (open trench, directional bore, plough, aerial), and application of industry standards, codes and specifications to design projects (E)
- Perform structural assessments and loading calculations on Merit's aerial communications plant as needed (E)
- Plan field surveys and prepare cost estimates, facility drawings and documents for aerial, buried and underground fiber cable plant to meet new construction and maintenance requirements including grounding and bonding design (E)
- Use estimation tools to determine material needed to perform the desired work and develop a cost effective design to meet desired objective. (E)
- Schedule and coordinate site walk for data collection of all surface features and underground utility data necessary to support the preparation of the construction drawings that are complete and suitable for construction permits (E)
- Create Statement of Work (SoW) documents on a per project basis to provide contractors with detailed descriptions of the project objective, work content, performance requirements, deliverables, timeline, etc.
- Provide guidance/assistance to peers, engineering team and management, as required. Collaborating with team members from other divisions to overcome project challenges and issues. (E)
- Support, inspect and perform quality assurance of OSP activities to review work done by others ensuring that all applicable OSP standards are met. (E)
- Ensure schedule deadlines are adhered to and project deliverables are maintained (E)
- Travel and work on site as required (E).

- Coordinate preparation and field strategies for deployment and evaluation. Review and coordinate planned maintenance with Merit customers, contractors, and partners (E)
- Develop and maintain relationships with project staff, members, vendors, and contractors (E)

Outside Plant Knowledge & Documentation (40%).

- Responsible for the preparation of detailed construction drawings depicting all underground and above ground elements and proposed work (E)
- Perform right of way and route assessments to confirm corridor constructability. Prepare all required supporting documentation for job order including, but not limited to: permits (State, County and City), Joint Use Pole Attachments and right-of-way from property owners. (E)
- Create and submit construction permits to regulatory authorities (E)
- Prepare drawings using AutoCAD / GIS Mapping Software and related drawing tools. Update schematics, check fiber and equipment assignments for service orders and cutovers including splice diagrams and documentation. (E)
- Verify accuracy of outside plant facilities and updates Merit OSP database as necessary. (E)
- Provide survey of Merit's fiber optic facilities in cooperation with Merit Engineers (E)
- Interpret Merit documentation to assist Merit staff in assessing maintenance issues to identify fault issue and work with Merit staff and contractors to implement repairs to infrastructure as needed (E)
- Develop and maintain in-depth knowledge of OSP engineering, construction and splicing related to Merit's fiber optic network (E)
- Collaborate with other CAD/GIS personnel to review work prints required for the preparation of construction and as built drawings and review and finalize documentation (E)
- Develop and administer OSP engineering activities including solution design, cost estimation, time estimation, engineering and construction analysis, onsite meeting support and developing detailed engineering prints (E)
- Respond to questions and inquiries, as appropriate, from the general public, developers, contractors, engineering professionals, utility, permit,

governing authorities and Merit staff regarding outside plant engineering and development projects. Ensure Merit's compliance with current telecommunications facilities in accordance with industry practices, codes, regulations and ordinances. Develop action plans to address network assessment or changes needed to accommodate OSP infrastructure to project needs (E)

- Design additions, upgrades, repairs and enhancements to OSP infrastructure in coordination with contractors and other OSP staff (E)
- Select solutions based on the most effective, efficient, and timely design (E)
- Create winning outcomes for both Merit and other parties when possible (E)
- Lead meetings and subsequent coordination activities with pole owners / utilities regarding make-ready submittals, design and construction requirements and activities (E)
- Work with Merit staff contractors to maintain and monitor OSP material stocks at strategic locations (E)
- Communicates complex technical issues and recommends solutions to client, project and functional management as directed and as appropriate (E)

Miscellaneous (10%).

- Initiate and drive process changes designed to improve operations efficiency and customer satisfaction (E)
- Maintain a safe working environment (E)
- Lead special projects as assigned (E)
- Assist in training existing staff and new hires to bring up to speed knowledge of current and future projects

Required Qualifications*

- Three (3) or more years of fiber engineering and construction management with preference for outside plant construction experience, fiber cable plant design and fiber splicing design
- Three (3) or more years' experience working within outside plant construction designing facilities involving fiber using CAD or GIS (Geographic Information Systems) based software

- Experience with Outside Plant Fiber Networks from preliminary design through to a fully implemented solution
- Experience reviewing and interpreting construction or telecom plans, designs and documents, including Computer-Aided Design (CAD) drawings, in order to assess impact of other public or private facility projects and to ensure compliance with current telecommunications facilities in accordance with industry practices, codes, regulations and ordinances
- Working knowledge of outside plant activities including current construction and engineering practices, methodology, and tools (fiber cable design, pole line construction, conduit system design)
- Experience performing structural assessments and loading calculations on aerial communications plant
- Experience with outside plant materials and vendor equipment and the ability to provide cost estimations of materials and equipment needed to produce a cost-effective design while meeting the desired build objective
- Experience with construction permitting in Michigan
- Strong computer skills with emphasis on service request or construction tracking systems, Google Earth Pro, Google Suite and Microsoft office applications including Word, Excel, and PowerPoint
- Competent in creating workflows and processes and developing and maintaining project schedules.
- Past experience and skills managing outside parties to engineer and construct OSP facilities in an aerial or underground environment
- Strong organizational skills with excellent attention to detail
- Strong planning skills and the ability to manage multiple priorities
- Good oral and written communication skills and good interpersonal skills.
- Willingness to contribute actively in team discussions, sharing experiences and ideas
- Must be self-motivated and work well within a team environment and also have the ability to work independently

Desired Qualifications*

- Experience with conversion or import of redline or paper copies of telecommunication plant drawings and data into CAD, GIS and/or Visio formats

- Experience in design of grounding and bonding.
- Experience and skills with 3-GIS
- Knowledge of optical networking hardware including DWDM and CWDM optical networks
- Experience creating project SoW documents
- BISCII Outside Plant Designer Certification or BICSI Registered Communications Distribution Designer (RCDD)

Additional Information

Merit Network offers excellent benefits and wellness opportunities. This position receives 24 days of vacation per year, paid sick leave with provisions for extended benefits, opportunities for professional development, and retirement options with 2-for-1 matching that include TIAA-CREF and Fidelity Investments. Please visit <https://hr.umich.edu/benefits-wellness> for full benefits information.

Relocation assistance is not available for this position.

Other Duties

Please note this job description is not designated to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job. Duties, responsibilities and activities may change at any time with or without notice.

Supervisory Responsibility

This position has no supervisory responsibilities.

Work Environment

Requires working outdoors, exposed to all weather conditions in addition to operating in a professional environment. This role routinely uses standard office equipment such as computers, phones, photocopiers, and AV/teleconferencing software & equipment.

Work Attire

Requires wearing common protective or safety equipment.

Physical Demands

The physical demands described here are representative of those that must be met by an employee (with or without accommodations) to successfully perform the essential functions of this job.

Employee must frequently work at computer station, answer telephone calls, emails, and/or other forms of customer/client communication. Employee may on occasion be required to move items of various sizes and weights throughout the office or building.

Background Screening

The University of Michigan/Merit Network Inc. conducts background checks on all job candidates upon acceptance of a contingent offer and may use a third party administrator to conduct background checks. Background checks will be performed in compliance with the Fair Credit Reporting Act.

Contact Information

- If you have any questions regarding this job, please contact:
merithr@merit.edu
- If you need assistance completing this application, please call (734) 615-2000, option 1

Application Deadline

Job openings are posted for a minimum of seven (7) calendar days. This job may be removed from posting boards and filled any time after the minimum posting period has ended.

U-M EEO/AA Statement

The University of Michigan is an equal opportunity/affirmative action employer.

Job Detail

JOB OPENING ID

165342

WORKING TITLE

Outside Plant Designer

JOB TITLETelecom Engineer
Intermediate**WORK LOCATION**Ann Arbor Campus
Ann Arbor, MI**FULL/PART TIME**

Full-Time

REGULAR/TEMPORARY

Regular

FLSA STATUS

Exempt

ORGANIZATIONAL GROUP

Affiliated It Orgs

DEPARTMENT

Merit Network

POSTING BEGIN/END DATE

11/16/2018 – 12/02/2018

CAREER INTEREST

Information Technology

