The replacement of the bridge on SR10/US78 over the N. Oconee River will impact the university community by temporarily disrupting traffic flow and access to campus during construction. However, the long-term benefits include improved safety and accessibility, streamlined transportation, and potential opportunities for collaboration and sustainability. Overall, while there may be short-term challenges, the project promises significant long-term advantages for the university and its surrounding community.

Design challenges include accommodating existing traffic flow during construction, managing site-specific complexities such as environmental considerations and varying topography, adhering to budget constraints while ensuring high-quality infrastructure, and coordinating design and construction activities within a strict timeline. Additionally, compliance with local regulations and community preferences adds another layer of complexity to the project. Addressing these challenges requires a comprehensive, multidisciplinary approach, involving collaboration between engineers, environmental experts, stakeholders, and regulatory agencies to ensure the successful completion of the project while minimizing disruptions to the university community and surrounding areas.

The successful completion of the bridge replacement project on SR10/US78 over the N. Oconee River will be achieved through meticulous planning, collaborative design efforts, strategic construction methodologies, and comprehensive post-construction activities. The project entails a comprehensive design process encompassing several key aspects. Firstly, a detailed design schedule will be developed to monitor and control project activities, ensuring timely completion. Drawing from authoritative sources such as the AASHTO Green Book, GDOT Design Policy Manual, and GDOT Bridge Manual, the design criteria will guide the conceptual layout and preliminary bridge design. This phase involves analyzing potential alternatives and considering factors such as cost, impacts, and schedule. Engaging stakeholders, including the university community, and addressing site-specific challenges will be prioritized during planning. Alternative options will be explored during the design phase, integrating sustainability principles and community feedback. In the construction phase, phased approaches, innovative techniques, and effective communication will minimize disruptions and ensure safety. Post-construction activities will include inspections, maintenance, and knowledge sharing for future projects. Through this holistic approach, the project will deliver a safe, resilient, and sustainable infrastructure, benefiting the university community and beyond.

The team will present a complete drawing set which includes the following sheets:

- Plan & Production
- General Notes
- Construction Sequence
- Deck Plan
- Deck Section
- Beam
- Bearing
- End Bent
- Intermediate Bent
- As Built Foundation Information

All content should be limited to 1 page. Text should be 11pt Times New Roman font. Images and figures can be included.