

**ROY G. PERRY COLLEGE OF ENGINEERING
CIVIL & ENVIRONMENTAL ENGINEERING DEPARTMENT
PRAIRIE VIEW A&M UNIVERSITY**

ASSESSMENT REPORT COVER PAGE

CVEG 4302 TRANSPORTATION ENGINEERING DESIGN

FALL 2021 SEMESTER

NAME OF INSTRUCTOR: Dr. Judy A. Perkins, PE

Revised: 08/05/2019

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 - 5.1 Assignments assessing students' ability to identify, formulate, and solve complex engineering problems (CEP) by applying principles of engineering, science, and mathematics. (Outcome "1")
 - 5.2 Assignments assessing students' ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives. (Outcome "5")

Detailed Course Syllabus
(Distributed to Students at the beginning of the Semester)
ABET Outcomes measured using course should be
explicitly listed in the syllabus

Detailed Course Syllabus



SYLLABUS Update

CVEG 4302 – Transportation Engineering Design Fall 2021

General Course Information

Information Item	Information
Instructor:	Dr. Judy A. Perkins, PE
Section # and CRN:	Section P01 and CRN - 17738
Office Location:	110-E in C. L. Wilson Building
Office Phone:	936-261-1655
Email Address:	juperkins@pvamu.edu
Office Hours:	9:30am – 10:30 am & 3:00 pm - 5:00 pm on Tuesday and Thursday or by Appointment
Mode of Instruction:	Face-to-Face (and Zoom as announced)
Course Location:	Room 104, Gilchrist Engineering Building
Class Days & Times:	8:00 am – 9:20 am, Tuesday and Thursday
Catalog Description:	Introduction of the transportation design process through a series of comprehensive transportation design projects. Emphasis is placed on the utilization of existing facilities and creation of efficient new facilities through transportation system management techniques. Energy, environmental, mobility and community impacts are considered as measures of effectiveness in the design process.
Prerequisites:	CVEG 3053 (new course number is CVEG 3302)
Co-requisites:	None
Required Text(s):	Nicholas J. Garber and Lester A. Hoel, <u>Traffic and Highway Engineering</u> , 5 th Edition, Cengage Learning, 2015
Recommended Text(s):	See Term Project References

Student Learning Outcomes:

Upon successful completion of this course, students will be able to:	Program Learning Outcome Alignment	Core Curriculum Outcome Alignment
1. Demonstrate the fundamentals of transportation engineering design (c);	ABET 3 (1, 3-5)	
2. Demonstrate their knowledge of contemporary issues (j); and	ABET 3 (1, 3-5)	
3. Demonstrate an understanding of multi-objective decision-making.	ABET 3 (3-5)	

Major Course Requirements

Method of Determining Final Course Grade

Course Grade Requirement	Value (points or percentages)	Total
1. TaskStream Assignment	2%	20
2. Assignments (Individual & Group)	2%	20
3. Progress Reports/Desktop Briefings	6%	60
4. Periodic Exams	45%	450
5. Final Exam (Comprehensive)	10%	100
6. Term Project	35%	350
Total:	100%	1000

Grading Criteria and Conversion:

A = $\geq$ 90 percent

B = $\geq$ 80 percent but < 90 percent

C = $\geq$ 70 percent but < 80 percent

D = $\geq$ 60 percent but < 70 percent

F = < 60 percent

Detailed Description of Major Assignments:

Assignment Title or Grade Requirement	Description
1. Periodic Exams	Written tests designed to measure knowledge of presented course material
2. Final Exam	Comprehensive closed book examination.
3. Term Project	An open-ended design related project created to measure ability to apply design principles.

Course Procedures or Additional Instructor Policies

Taskstream

Taskstream is a tool that Prairie View A&M University uses for assessment purposes. One of your assignments may be required to be submitted as an "artifact," an item of coursework that serves as evidence that course objectives are met. If applicable, more information will be provided during the semester by your department, but for general information, you can visit Taskstream via the link in eCourses.

Submission of Assignments:

Assignment Submission

Dates to submit assignments will be provided to you at the time the assignment is handed out. **LATE ASSIGNMENTS WILL NOT BE ACCEPTED!!** You will be graded not only on technical accuracy but also on neatness and uniformity. All figures and sketches should be drawn using straightedges and/or curves and should be clearly labeled. Lettering must be of engineering quality. Calculations should be concise and should proceed from beginning to end in a clear and logical manner. **Use 8-1/2 x 11" engineering paper and No. 2 lead pencil, unless told otherwise.**

Project Deliverable Submission

Dates to submit project deliverables will be provided to you at the time the assignment is handed out. Late submittals will be **NOT BE ACCEPTED**. You will be graded not only on the organization of your work and technical accuracy, but also on neatness and uniformity.

Formatting Documents:

Microsoft Word is the standard word processing tool used at PVAMU. If you're using other word processors, be sure to use the "save as" tool and save the document in either the Microsoft Word, Rich-Text, or plain text format.

Additional Notes:

- Attendance in the class is mandatory and students are expected to report to class on time. If you know that you will be late to class or have to leave class early, please speak with or email me before class and enter/leave the classroom quietly. Attendance will be taken at the beginning of class and may be taken at the end of class. Please read the attached University Class Attendance Policy.
- Turn cell phones and other electronic devices off prior to the start of class. They must remain off while class is in session whether we are in the classroom or outside the classroom. If you are expecting an emergency call, please keep the cell phone in silence mode and exit the classroom to take the call.
- A study guide will be provided one week prior to the designated examination date.
- A formula sheet will be provided as well as any hand-outs (e.g., charts, tables, graphs) applicable to the exam.
- No makeup test(s) will be given. If you miss a test you will receive zero credit. If you have an excused absence please discuss with me ahead of time. Failure to take the final examination will result in an automatic "F" grade.
- Late homework will not be accepted. The format for submitting homework will be discussed on the designated dates.
- Cheating on an exam or homework and other forms of academic dishonesty will result in referral with the maximum penalty recommended.
- Reference books are located in the Civil & Environmental Engineering Conference Room #109-M.
- Grading/class related Appeals (see undergraduate catalog)

The following policy is only for students who have declared a major (Engineering, Computer Science, and/or Technology) in the Roy G. Perry College of Engineering.

College of Engineering (CoE) Textbook Policy:

Students MUST acquire the required textbook that is listed on the course syllabus for this course. The textbook must be acquired by the 10th class day. Students are not allowed to share textbooks with students who are currently registered in the same class. Failure to acquire (or show proof of purchase) the required textbook by the 10th class day will result in the student being administratively dropped from the course. The University will assess financial obligations for the course to the student as with any other dropped class according to the fee schedule as well as your financial aid may be affected.

If you are not financially able to purchase a required textbook for an engineering course prior to the 10th class day, you may apply to the College of Engineering Textbook Fund for a textbook voucher. The voucher can only be used at the Campus Bookstore. Additional information about the College of Engineering Textbook Policy and the CoE Textbook Fund may be found at <http://www.pvamu.edu/engineering/>. The student may need to contact the Director of Engineering Student Services) in the CoE Dean's office (350 SR Collins).

Important Semester Dates

- Week 3 – Labor Day Holiday on Monday, September 6, 2021
- Week 3 – Last Day to Withdraw from Course(s) without academic record, Tuesday, Sept. 7, 2021
- Week 3 – Withdrawal from course(s) with academic record (“W”) Begins on Wednesday, Sept. 8, 2021
- Week 8 – Mid-Semester Examination Period, Thursday – Saturday, October 14-16, 2021
- Week 9 – Mid-Semester Grades Due on Wednesday, October 20, 2021
- Week 11 – Withdrawal from course(s) with academic record (“W”) Ends on Monday, Nov. 1, 2021
- Week 12 - Priority Registration Period for Spring 2022 Begins on Nov. 8, 2021
- Week 14 – Thanksgiving Break, Thursday - Saturday, Nov. 25-27, 2021
- Week 15 – Last Class Day for Fall Semester, Wednesday, Dec. 1, 2021

Semester Calendar
T – Tuesday and R – Thursday

Week	Description
Week One: Topic Description	Course Introduction, Course Maintenance, Transportation Planning
Readings:	T – Sections of Chapters 11 R – Sections of Chapter 11
Assignment (s):	T - Team Organization, Self-Assessment of AutoCAD and MicroSoft Software Knowledge R – GANTT Chart In-Class Exercise
Week Two: Topic Description	Transportation Planning, Decision Process/Design Process/Problem Solving Model
Readings:	T - Chapter 11 R – Guest Speaker – Raymond “Paul” Giroux with Kiewit Company
Assignment (s):	T- Team Organization
Week Three: Topic Description	Geometric Design of Facilities: Factors Influencing Roadway Design, and Introduction to Term Project as well as Become Familiar with Project Site
Readings:	T - Chapter 15 R - Chapter 15
Assignment (s):	R - Develop GANTT Chart, Review Progress Report Format, Review Desktop Briefing and Final Presentation Format
Week Four: Topic Description	Drainage Analysis and Design
Readings:	T - Chapter 16 R – Chapter 16
Assignment (s):	R - TBA
Week Five: Topic Description	Parking Studies: Parking Analysis and Design
Readings:	T - Chapter 4, Chapter Sections 15.4 and 15.5 R - Chapter 4, Chapter Sections 15.4 and 15.4
Assignment (s):	R – Exam # 1
Week Six: Topic Description	Introduction to Horizontal Alignment, Vertical Alignment, and Earthwork Software
Readings:	T – Handouts and Sections of Chapter 14 R – Handouts and Sections of Chapter 14
Assignment (s):	R - TBA
Week Seven: Topic Description	Roadwork Blueprint Layout
Readings:	T - None R - None
Assignment (s):	T – None R - None
Week Eight: Topic Description	Signage and Physical Controls
Readings:	T – Handouts R - Handouts
Assignment (s):	T – Exam #2

	Mid-Term Examination
Week Nine: Topic Description	Traffic Signal Timing
Readings:	T – Handouts and Sections of Chapter 10 R – Handouts and Sections of Chapter 10
Assignment (s):	R - TBA
Week Ten: Topic Description	Capacity of Roadway (Calculate Number of Required Lanes) and Level of Service Revisited
Readings:	T – Handouts and Chapter 9 R – Handouts and Chapter 9
Assignment (s):	T – None R - None
Week Eleven: Topic Description	Intersection Design and Controls and Cross-Sectional Sketches
Readings:	T – Handouts, Sections of Chapters 7, 8, and 10 R – Handouts, Sections of Chapters 7, 8, and 10
Assignment (s):	T - TBA
Week Twelve: Topic Description	Intersection Design and Controls
Readings:	T – Handouts, Sections of Chapters 7, 8, and 10 T – Handouts, Sections of Chapters 7, 8, and 10
Assignment (s):	R – Exam #3
Week Thirteen: Topic Description	Final Project Status: Progress Reports/Desktop Briefings
Readings:	T – Designated Groups R – Designated Groups
Assignment (s):	T – None R - None
Week Fourteen: Topic Description	Final Project Deliverables Due
Readings:	T – None R – None
Assignment (s):	T – Final Project Presentation R - Thanksgiving Holiday (University Closed November 25-27)
Week Fifteen: Topic Description	Final Week of Class
Assignment (s):	T – None R – None T - Issue Study Guide for Final Exam
Week Sixteen: Topic Description	Comprehensive Final Exam

Student Support and Success

John B. Coleman Library

The library and its partners have as their mission to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service and to support the University's core values of access and quality, diversity, leadership, relevance, and social responsibility through emphasis on ten key areas of

service. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty. Phone: 936-261-1500; Library Website: <https://www.pvamu.edu/library>.

Academic Advising Services

Academic Advising Services offers students a variety of services that contributes to student success and leads towards graduation. We assist students with understanding university policies and procedures that affect academic progress. We support the early alert program to help students get connected to success early in the semester. We help refer students to the appropriate academic support services when the student is unsure of the best resource for their needs. Some students are supported by faculty advisors in their respective colleges. Your faculty advisor can be identified in PantherTracks. Advisors with Academic Advising Services are available to all students. We are located across campus. You can find your advisor's location by academic major at the Academic Advising Website - <https://www.pvamu.edu/student-success/advising>, Phone: 936-261-5911.

The University Tutoring Center

The University Tutoring Center (UTC) offers free tutoring and academic support to all registered PVAMU students. The mission of the UTC is to help provide a solid academic foundation that enables students to become confident, capable, independent learners. Competent and caring staff and peer tutors guide students in identifying, acquiring, and enhancing the knowledge, skills, and attitudes needed to reach their desired goals. Tutoring and academic support is offered face-to-face in the [UTC, in virtual face-to-face sessions](#), and through [online sessions at PVPlace](#). Other support services available for students include Supplemental Instruction, Study Break, Academic Success Workshops, and Algebra Study Jam. Location: J. B. Coleman Library, Rm. 307; Phone: 936-261-1561; Email: pvtutoring@pvamu.edu; Website: [University Tutoring Center - https://www.pvamu.edu/student-success/sass/university-tutoring-center/](https://www.pvamu.edu/student-success/sass/university-tutoring-center/).

The Writing Center

The Writing Center provides well-trained peer tutors that assist students with writing assignments at any stage of the writing process. Tutors help students with various writing tasks from understanding assignments, brainstorming, drafting, revising, editing, researching, and integrating sources. Students have free access to Grammarly online writing assistance. Grammarly is an automated proofreading and plagiarism detection tool. Student must register for Grammarly by using their student email address. In addition, students have access to face-to-face as well as virtual tutoring services either asynchronously via email or synchronously via Zoom. Location: J. B. Coleman Library, Rm. 209; Phone: 936-261-3724; Website: [The Writing Center - https://www.pvamu.edu/student-success/writing-center](https://www.pvamu.edu/student-success/writing-center); [Grammarly Registration - https://www.grammarly.com/signup](https://www.grammarly.com/signup).

Academic Early Alert

Academic Early Alert is a proactive system of communication and collaboration between faculty, academic advisors, and PVAMU students that is designed to support student success by promptly identifying issues and allowing for intervention. Academic Early Alert helps students by providing a central location to schedule advising appointments, view advisor contact information, and request assistance. Students who recognize that they have a problem that is negatively affecting their academic performance or ability to continue school may self-refer an Academic Early Alert. To do so, students will log in to PVPlace and click on Academic Early Alert on the left sidebar. Phone: 936-261-5902; Website: [Academic Early Alert - https://www.pvamu.edu/student-success/early-alert/](https://www.pvamu.edu/student-success/early-alert/).

Student Counseling Services

The Student Counseling Services unit offers a range of services and programs to assist students in maximizing their potential for success: short-term individual, couples, and group counseling, as well as crisis intervention, outreach, consultation, and referral services. The staff is licensed by the State of Texas and provides assistance to students who are dealing with academic skills concerns, situational crises, adjustment problems, and emotional difficulties. Information shared with the staff is treated confidentially and in accordance with Texas State Law. Location: Hobart Taylor, 2nd floor; Phone: 936-261-3564; Website: [Student Counseling Services - https://www.pvamu.edu/healthservices/student-counseling-services/](https://www.pvamu.edu/healthservices/student-counseling-services/).

Office of Testing Services

Testing Services serves to create opportunities by offering suite of exams that aid in the students' academic and professional success. Currently we administer entrance (HESI A2), college readiness (TSI assessment), Prior Learning (CLEP, DSST), and proctored exams. Location: Wilhelmina Delco, 3rd Floor, Rm. 305; Phone: 936-261-3627; Email: aetesting@pvamu.edu; Website: [Testing Services - https://www.pvamu.edu/student-success/sass/testing](https://www.pvamu.edu/student-success/sass/testing).

Office of Diagnostic Testing and Disability Services

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, contact the Office of Disability Services. As a federally-mandated educational support unit, the Office of Disability Services serves as the repository for confidential disability files for faculty, staff, and students. For persons with a disability, the Office develops individualized ADA letters of request for accommodations. Other services include: learning style inventories, awareness workshops, accessibility pathways, webinars, computer laboratory with adapted hardware and software, adapted furniture, proctoring of non-standardized test administrations, ASL interpreters, ALDs, digital recorders, livescribe, and a comprehensive referral network across campus and the broader community. Location: Hobart Taylor, Rm. 1D128; Phone: 936-261-3583; Website: [Disability Services - https://www.pvamu.edu/disabilityservices/](https://www.pvamu.edu/disabilityservices/).

Center for Instructional Innovation and Technology Services (CIITS)

Distance Learning, also referred to as Distance Education, is the employment of alternative instructional delivery methods to extend programs and services to persons unable to attend college in the traditional manner. The Center for Instructional Innovation and Technology Services (CIITS) supports student learning through online, hybrid, web-assisted and 2-way video course delivery. For more details and contact information, visit: [CIITS Student Webpage - https://www.pvamu.edu/dlearning/distance-learning-2-2/students-2](https://www.pvamu.edu/dlearning/distance-learning-2-2/students-2); Phone: 936-261-3283.

Veteran Affairs

Veteran Services works with student veterans, current military and military dependents to support their transition to the college environment and continued persistence to graduation. The Office coordinates and certifies benefits for both the G.I. Bill and the Texas Hazlewood Act. Location: Evans Hall, Rm. 102; Phone: 936-261-3563; Website: [Veteran Affairs - https://www.pvamu.edu/sa/departments/veteranaffairs](https://www.pvamu.edu/sa/departments/veteranaffairs).

Office for Student Engagement

The Office for Student Engagement delivers comprehensive programs and services designed to meet the co-curricular needs of students. The Office implements inclusive and accessible programs and services that enhance student development through exposure to and participation in diverse and relevant social, cultural, intellectual, recreational, community service, leadership development and campus governance. Location: Memorial Student Center, Rm. 221; Phone: 936-261-1340; Website: [Office for Student Engagement - https://www.pvamu.edu/studentengagement](https://www.pvamu.edu/studentengagement).

Career Services

Career Services supports students through professional development, career readiness, and placement and employment assistance. The Office provides one-on-one career coaching, interview preparation, resume and letter writing, and career exploration workshops and seminars. Services are provided for students at the Northwest Houston Center and College of Nursing in the Medical Center twice a month or on a requested basis. Distance Learning students are encouraged to visit the Career Services website for information regarding services provided. Location: Anderson Hall, 2nd floor; Phone: 936-261-3570; Website: [Career Services - https://www.pvamu.edu/careerservices](https://www.pvamu.edu/careerservices).

University Rules and Procedures

Academic Misconduct (See Student Planner)

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Planner, especially the section on academic misconduct (see *University Administrative Guidelines on Academic Integrity*). Students who engage in academic misconduct are subject to university disciplinary procedures. As listed in the PVAMU Undergraduate Catalog, Graduate Catalog, and the Student Planner, the following are examples of prohibited conduct. This list is not designed to be all-inclusive or exhaustive. In addition to academic sanctions, any student found to have committed or to have attempted to commit the following academic misconduct may also be subject to disciplinary review and action as outlined in the PVAMU Student Planner.

Forms of Academic Dishonesty:

1. Cheating: Deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not learned, giving or receiving aid unauthorized by the instructor on assignments or examinations. Examples: unauthorized use of notes for a test; using a “cheat sheet” on a quiz or exam; any alteration made on a graded test or exam which is then resubmitted to the teacher.
2. Plagiarism: Careless or deliberate use of the work or the ideas of another; representation of another’s work, words, ideas, or data as your own without permission or appropriate acknowledgment. Examples: copying another’s paper or answers, failure to identify information or essays from the Internet and submitting or representing it as your own; submitting an assignment which has been partially or wholly done by another and claiming it as yours; not properly acknowledging a source which has been summarized or paraphrased in your work; failure to acknowledge the use of another’s words with quotation marks.

3. Multiple Submission: Submission of work from one course to satisfy a requirement in another course without explicit permission. Example: using a paper prepared and graded for credit in one course to fulfill a requirement and receive credit in a different course.
4. Conspiracy: Agreeing with one or more persons to commit an act of academic/scholastic dishonesty.
5. Fabrication of Information/Forgery: Use or submission of contrived, invented, forged, or altered information in any assignment, laboratory exercise, or test; tampering with or production of a counterfeit document, particularly documents which make up the student's academic record. Examples: making up a source or citing nonexistent publication or article; representing made up data as real for an experiment in a science laboratory class; forging a change of grade or student withdrawal record; falsifying any document related to a student academic exercise.

Nonacademic Misconduct (See Student Planner)

The University respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, or (2) the ability of students to benefit from the instructional program, or (3) the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Office for Student Conduct under nonacademic procedures.

Sexual Misconduct

Sexual harassment of students and employees at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating the university's sexual harassment policy will be subject to disciplinary action. In accordance with the Texas A&M University System guidelines, your instructor is obligated to report to the Office of Title IX Compliance (titleixteam@pvamu.edu) any instance of sexual misconduct involving a student, which includes sexual assault, stalking, dating violence, domestic violence, and sexual harassment, about which the instructor becomes aware during this course through writing, discussion, or personal disclosure. The faculty and staff of PVAMU actively strive to provide a learning, working, and living environment that promotes respect that is free from sexual misconduct, discrimination, and all forms of violence. If students, faculty, or staff would like assistance, or have questions, they may contact the Title IX Coordinator at 936-261-2144 or titleixteam@pvamu.edu. More information can be found at the [Title IX Webpage - https://www.pvamu.edu/titleix/](https://www.pvamu.edu/titleix/) including confidential resources available on campus.

Pregnancy, Pregnancy-related, and Parenting Accommodations

Title IX of the Education Amendments of 1972 prohibits sex discrimination, which includes discrimination based on pregnancy, marital status, or parental status. Students seeking accommodations related to pregnancy, pregnancy-related condition, or parenting (reasonably immediate postpartum period) are encouraged to contact Student Disability Services or the Dean of Students' Office for additional information and to request accommodations. More information can be found at this [webpage - https://www.pvamu.edu/titleix/pregnant-and-parenting-students/pregnancy-faqs](https://www.pvamu.edu/titleix/pregnant-and-parenting-students/pregnancy-faqs).

Non-Discrimination Statement

Prairie View A&M University does not discriminate on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation or gender

identity in its programs and activities. The University is committed to supporting students and complying with the Texas A&M University System non-discrimination policy. It seeks to establish an environment that is free of bias, discrimination, and harassment. If you experience an incident of discrimination or harassment, we encourage you to report it. If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are individuals who can meet with you. The Director of Equal Opportunity & Diversity has been designated to handle inquiries regarding the non-discrimination policies, and can be reached at Harrington Science Building, Suite 109 or by phone 936-261-1744 or 1792.

Class Attendance Policy (See Catalog for Full Attendance Policy)

Prairie View A&M University requires regular class attendance. Attending all classes supports full academic development of each learner whether classes are taught with the instructor physically present or via distance learning technologies such as interactive video and/or internet. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class during regular semesters and summer terms. Each faculty member will include the University's attendance policy in each course syllabus.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the University Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint. Students can file Academic Complaints and/or Grade Appeals at this [webpage - https://www.pvamu.edu/student-complaint/](https://www.pvamu.edu/student-complaint/).

Technical Considerations

Minimum Recommended Hardware and Software:

- Intel PC or Laptop with Windows 10 or later version; Mac with OS High Sierra*
- Smartphone or iPad/Tablet with Wi-Fi*
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari or Firefox

*Smartphone, Google Chrome books and Android tablets may not be supported. iPads are the only tablets supported.

Note: Be sure to enable Java & pop-ups in the Web browser preferences

Participants should have a basic proficiency of the following computer skills:

- Sending and receiving emails
- A working knowledge of the Internet

- Microsoft Word (or a program convertible to Word)
- Acrobat PDF Reader
- Windows or Mac OS
- Video conferencing software

Netiquette (online etiquette)

Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated. Do not use ALL CAPS for communicating to others AS IT CAN BE INTERPRETED AS YELLING. Avoid slang terms such as “wassup?” and texting abbreviations such as “u” instead of “you.” Limit and possibly avoid the use of emoticons. Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and the message might be taken seriously or sound offensive.

Video Conferencing Etiquette

When using Zoom, WebEx or other video conferencing tools, confirm the visible area is tidy, clear of background clutter, inappropriate or offensive posters, and other distractions. Ensure you dress appropriately and avoid using high traffic or noisy areas. Stay muted when you are not speaking and avoid eating/drinking during session. Before class session begins, test audio, video and lighting to alleviate technology issues.

Technical Support

Students should go to the [Password Reset Tool](#) if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Center for Instructional Innovation and Technology Services (CIITS) at 936-261-3283 or email ciits@pvamu.edu.

Communication Expectations and Standards

Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

Discussion Requirement

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplished by the use of the discussion board. The exact use of discussion will be determined by the instructor.

It is strongly suggested that students type their discussion postings in a word processing application such as Word and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, copy and paste to the discussion board.

COVID-19 Campus Safety Measures

To promote public safety and protect students, faculty, and staff during the COVID-19 pandemic, Prairie View A&M University has adopted policies and practices for the Fall 2020

academic term to limit virus transmission. Students must observe the following practices while participating in face-to-face courses and course-related activities (office hours, help sessions, transitioning to and between classes, study spaces, academic services, etc.):

- **Self-monitoring** - Students should follow CDC recommendations for self-monitoring. Students who have a fever or exhibit symptoms of COVID-19 should participate in class remotely and should not participate in face-to-face instruction.
- **Face Coverings** - Face coverings (cloth face covering, surgical mask, etc.) must be properly worn in all non-private spaces including classrooms, teaching laboratories, common spaces such as lobbies and hallways, public study spaces, libraries, academic resource and support offices, and outdoor spaces where 6 feet of physical distancing is difficult to reliably maintain.
- **Physical Distancing** - Physical distancing must be maintained between students, instructors, and others in course and course-related activities.
- **Classroom Ingress/Egress** - Students must follow marked pathways for entering and exiting classrooms and other teaching spaces. Students should leave classrooms promptly after course activities have concluded, should not congregate in hallways and should maintain 6-foot physical distancing when waiting to enter classrooms and other instructional spaces.
- **Face-to-face Class** - To attend a face-to-face class, students must wear a face covering (or a face shield if they have an exemption letter). If a student refuses to wear a face covering, the instructor should ask the student to leave and join the class remotely. If the student does not leave the class, the faculty member should report that student to the Office for Student Conduct for adjudication. Additionally, the faculty member may choose to teach that day's class remotely for all students.
- **COVID-19 Guidelines for Student Conduct Adjudication** - The mandatory COVID-19 Training/Certification taken by all students serves as the 1st Warning for violation of COVID-19 Guidelines.
 - 1st incident: upon review of Incident Report and finding of responsibility — Conduct Probation
 - 2nd incident: upon review of Incident Report and finding of responsibility — Suspension
 - Consult the Code of Student Conduct in the Student Planner or Student Conduct website - <https://www.pvamu.edu/sa/student-conduct> for additional information on Conduct Probation and Suspension.
- **Personal Illness and Quarantine** - Students required to quarantine must participate in courses and course-related activities remotely and must not attend face-to-face course activities. Students should notify their instructors of the quarantine requirement. Students under quarantine are expected to participate in courses and complete graded work unless they have symptoms that are too severe to participate in course activities. Students

experiencing personal injury or illness that is too severe for the student to attend class qualify for an excused absence. To receive an excused absence, students must provide appropriate documentation to the Office for Student Conduct, studentconduct@pvamu.edu.

Mapping of Program Educational Objectives onto Student Outcomes

PEO	Program Educational Objectives	CE Student Outcomes						
	<i>Graduates from the Civil Engineering program will:</i>	[1]	[2]	[3]	[4]	[5]	[6]	[7]
PEO 1	Have careers in civil engineering or related fields that lead to increasing levels of responsibility and leadership	X	X	X	X	X	X	X
PEO 2	Obtain professional licensure/certifications	X	X					
PEO 3	Complete graduate studies in civil engineering or related fields	X	X	X	X		X	X
PEO 4	Engage in professional development and service	X	X	X	X		X	X

- 1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- 2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- 3) an ability to communicate effectively with a range of audiences
- 4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- 5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- 6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- 7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Mapping of CE Courses and Student Outcomes [Beginning Fall 2019] Updated Fall 2021

Previous Course No.	New Course No.	Course Title	CE Student Outcomes/SOs						
			[1]	[2]	[3]	[4]	[5]	[6]	[7]
CVEG 1011	CVEG 1101	Introduction to Engineering							
CVEG 1021	CVEG 1102	Introduction to Civil Engineering Lab							I
CVEG 2043	CVEG 2301	Engineering Mechanics I							I
CVEG 2061	CVEG 2101	Materials & Dynamics Lab						I	
CVEG 2063	CVEG 2332	Mechanics of Materials I		I					
CVEG 2073	CVEG 2304	Global Development Issues {CORE}			I	√	I		R
CVEG 2081	CVEG 2102	Surveying & Geospatial Concepts			R			I	
CVEG 3023	CVEG 3300	Geotechnical Engineering		I					
CVEG 3031	CVEG 3100	Concrete & Steel Lab						√	
CVEG 3043	CVEG 3301	Environmental Engineering			R			√	
CVEG 3051	CVEG 3102	Professional Engineering I				√			
CVEG 3053	CVEG 3302	Transportation Engineering			R		√		

CVEG 3063	CVEG 3303	Hydraulics			√		R	√	
CVEG 3073	CVEG 3304	Structural Analysis I	I						√
CVEG 3083	CVEG 3305	Steel Design	√	√	R				
CVEG 4013	CVEG 4300	Reinforced Concrete	R	√					
CVEG 4021	CVEG 4100	Geotech Engineering Design Lab		R					√
CVEG 4043	CVEG 4301	Environmental Engineering Design	√	√	R				
CVEG 4053	CVEG 4302	Transportation Engineering Design	√				√		
CVEG 4063	CVEG 4303	Water Resources Engineering	√	√					I
CVEG 4093	CVEG 4304	Systems Engineering		√					√
CVEG 4472	CVEG 4200	Sr. Design & Professionalism I		√	√	√	√		√
CVEG 4482	CVEG 4201	Sr. Design & Professionalism II	√	√	√	√			

I – means the described outcome is introduced (not measured) but could be monitored.

√ - means that the skills described in the program outcome are covered and **measured** in the course.

R – means the described outcome is reinforce in the course (not measured) but could be monitored.

Additionally, evidence are to collected to satisfy **CE Program Criteria** covering basic concepts in **Management** (CVEG 3302, 4302, 4200, 4201, 4304), **Business** (CVEG 4304, 4200, 4201), **Public Policy** (CVEG 2304, 4200, 4201), **Professional Ethics** (CVEG 1102, 2304, 3102), **Leadership** (CVEG 4200, 4201), **Consideration of Sustainability** (CVEG 4301, 4302, 4303), **Importance of Professional Licensure** (CVEG 3102, 4200, 4201).

Note: Courses with a mixture of students from other Programs are intentionally excluded when possible.

The Assessment Process

Student Learning outcomes are measured using both **direct** and **indirect** measurements. Direct measurement are derived from either designated homework, tests, lab reports project reports or other assignments. Indirect measurement are drawn from end-of-semester Student Opinion Surveys (SOS) and any surveys completed by graduating Seniors. The above listed Student Learning Outcomes (Program Outcomes) are measured and evaluated in specified cycles and an Assessment Report is prepared annually for the purposes of continuously improving the Program's learning outcomes.

End of Semester Course Assessment Report

This summary contains the following Information

1. Performance Statistics

- Total number of students in class
- The class average performance (**stated as %**) in each course outcome assessed in this class and the **two previous times course was assessed**.
- The acceptable class average for the class in each outcome area as set by your Department. **You cannot use any number of your choice**
- Percentage of students who scored below the expected average in each outcome.

2. Implementation Summary

- Brief summary of plans implemented during the semester based on last assessment report

3. Perceived Problems

- Instructor's **critical evaluation** of perceived problems that affected students' performance. **Realistic problems should be identified throughout the semester and summarized in this section of the report.**

4. New Plans for Addressing Problems

- Instructor's plans for addressing the perceived problems the next time the class is taught. **These should be specific enough for another instructor to implement. Most of these should be things that, you, the instructor can implement to help students to improve. Be creative.**

5. Overall Trend over last three assessment periods

- Instructors summary of overall performance trend for each outcome measured over the last three periods.

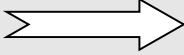
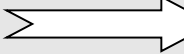
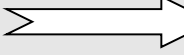
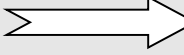
5. Were Expectations Met?

- Answer **YES** if the **class average was above the expected average** and the **stated percentage of students** scored at or above the expected average, else answer **NO**.

END OF SEMESTER COURSE OUTCOME ASSESSMENT REPORT
CVEG 4302-P01 TRANSPORTATION ENGINEERING DESIGN
FALL 2021 SEMESTER

Report Prepared by: Dr. Judy A. Perkins, PE

Report Date: December 20, 2021

Semester	Analysis Type	Number of Students	Outcome 1 Ability to identify, formulate, and solve complex engineering problems (CEP) by applying principles of engineering, science, and mathematics				Outcome 5 Ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.			
			Expected Class Average	Expected Percent of students at or above average	Class Average	% Students meeting Expected Average	Expected Class Average	Expected Percent of students at or above average	Class Average	% Students meeting Expected Average
Fall 2021 – P01	Direct	15	70	70	71	60	70	70	83	100
Fall 2020 – Z01	Direct	18	70	70	78	78	70	70	79	67
Fall 2019 - P01	Direct	21	70	70	76	81	70	70	75	67
Fall 2019 - P02	Direct	17	70	70	72	59	70	70	65	59
Implementation Summary	Items implemented from previous report or after meeting previous instructor 		Continue to give lectures on specific design concepts in conjunction with aspects of the design project. Students received handouts and other reference materials during the semester.				Student group criteria was AutoCAD skill levels and performance in the pre-requisites for this course. The faculty balanced as per the criteria used. The students voted unanimously for the selection of their group leader. For most groups, students worked well together.			
Perceived Problems	Perceived problems are directly related to the PC and the sub items under them 		The primary problem area was that students did not properly follow instructions for a key assignment that measures this specific outcome.				This outcome shows students exceeding it. Very few students submitted work that resulted in below average scores.			
Plans for Addressing Problems	Plans for address specific measures to address PC and their sub areas 		Give the students case studies involving design performance of work in order to develop their reading comprehension skills. Also, give the students additional homework problems prior to having them complete any key assignments.				The faculty will continue to give a few lectures at the beginning of the semester on team building so that students will approach working in groups differently. In addition, the faculty will expose students to several sessions addressing the topic of conflict resolution.			
Overall Trend over Periods	Ascertain if there were improvements over previous semesters 		While there was an increase in the class average during this term, the students still performed below the expected class average.				The students performed much better this term (i.e., class average) compared to the past term. All students were “above the expected class average.”			
Were Expectations Met?			NO				YES			

**Grade Sheet Showing
Student and Class Performance in Outcomes
The computed semester average in each outcome
as stated in the Assessment report are
highlighted in boldface**

**Grade Sheet Showing Student and Class Performance in Course Outcomes
CVEG 4302-P01: Transportation Engineering Design, FALL 2021 Semester**

Outcomes Measured	1	1		5	5	
Last Name	Assignment #4-100pts	Assignment #5-100pts	Total-200pts	Assignment #1-100pts	Assignment #2-100pts	Total-200pts
Student 1	98	41	139	88.5	94.5	183
Student 2	87	67	154	76	84	160
Student 3	100	61.5	161.5	76.5	78.5	155
Student 4	98	41	139	88.5	94.5	183
Student 5	100	61.5	161.5	76.5	78.5	155
Student 6	98	41	139	88.5	94.5	183
Student 7	100	61.5	161.5	76.5	78.5	155
Student 8	98	41	139	88.5	94.5	183
Student 9	87	67	154	76	84	160
Student 10	87	67	154	76	84	160
Student 11	0	0	0	76	84	160
Student 12	98	41	139	88.5	94.5	183
Student 13	87	67	154	76	84	160
Student 14	100	61.5	161.5	76.5	78.5	155
Student 15	100	61.5	161.5	76.5	78.5	155
Average			71			83
Expected Average			70			70
Percent of Students at or Above Expected Average			60			100

**OUTCOME SPECIFIC ASSIGNMENTS
USED TO ASSESS OUTCOMES**

(Provide at least two assignments used to specifically measure each outcome and justify the suitability of the assignments for the outcome being measured)

ASSIGNMENTS FOR OUTCOME 1

An ability to identify, formulate, and solve **complex engineering problems by applying principles of engineering, science, and mathematics.**

**CIVIL & ENVIRONMENTAL ENGINEERING DEPARTMENT
OUTCOMES SPECIFIC ASSIGNMENT COVER SHEET
CVEG 4302: TRANSPORTATION ENGINEERING DESIGN
FALL 2021**

Instructor: Dr. Judy A. Perkins

Title of Assignment

HOMEWORK ASSIGNMENT #4 - Intersection Design and Control

Outcome Measured Using this Assignment

Outcome 1

An ability to identify, formulate, and solve **complex engineering problems** by applying principles of engineering, science, and mathematic.

Check the complex engineering problem characteristics related to this assignment

Assignment problem	
x	involves wide-ranging or conflicting technical issues,
	has no obvious solution
	Addresses problems not encompassed by current standards and codes
	involves diverse groups of stakeholders
x	includes many component parts or sub-problems
	involves multiple disciplines
x	has significant consequences in a range of contexts
Assignment problem involves the application of the principles of	
x	engineering
	science
	mathematics

Brief justification of the suitability of assignment for the outcome

Homework Assignment #4 requires the students to respond to questions regarding intersection design, intersection controls, and capacity and level of service at signalized intersections. By doing so, the student will be able to demonstration applying the principles of engineering to solving complex engineering problems.

ASSIGNMENT STATEMENT/QUESTIONS
Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department

CVEG 4302 – Transportation Engineering Design
Fall 2021

Homework Assignment #4 – Intersection Design and Control

Given: 18 November 2021

Due: 23 November 2021 NLT 8:05am CST

Total point value is (100-points)

- **Measuring ABET Criterion 3. Student Outcome 1** - An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
1. This is a group assignment.
 - You must type the question/problem and your response to the question/problem.
 - Each question/problem will need to start a new page.
 2. Your assignment submission will need to include a single cover page that follows the format shown below:
 - Assignment Cover Page:
 - **Complete** title of assignment
 - Course number, section and name
 - First Name and Last Name of each group member
 - Given Date of Assignment
 - Due Date of Assignment

Chapter 7 - Intersection Design

1. Problem #7-4 (25-points)
2. Problem #7-5 (25-points)
3. Problem #7-6 (25-points)

Chapter 8 - Intersection Control

1. Problem #8-1 (25-points)

GRADING SCHEME FOR ASSIGNMENT
Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department

CVEG 4302 – Transportation Engineering Design
Fall 2021

Homework Assignment #4 – Intersection Design and Control - Solution

Given: 18 November 2021

Due: 23 November 2021 NLT 8:05am CST

Total point value is (100-points)

- **Measuring ABET Criterion 3. Student Outcome 1** - An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
1. This is a group assignment.
 - You must type the question/problem and your response to the question/problem.
 - Each question/problem will need to start a new page.
 2. Your assignment submission will need to include a single cover page that follows the format shown below:
 - Assignment Cover Page:
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 - Course number, section and name
 - First Name and Last Name of each group member
 - Given Date of Assignment
 - Due Date of Assignment

Chapter 7 - Intersection Design

1. Problem #7-4

What are the key defining characteristics of roundabouts that distinguish them from other traffic circles?

Roundabouts, as opposed to other types of traffic circles, have yield control is used on the approaches, and the roundabout design speed typically does not exceed 30 miles per hour. Conflicting traffic movements are separated by pavement markings or channelizing islands such that vehicles are given detailed guidance as to proper place within the roundabout. Parking is prohibited within the roundabout to maximize capacity.

2. Problem #7-5

What are the main functions of channelization at an at-grade intersection?

Channelization is intended to separate conflicting traffic movements into defined paths to facilitate the safe and orderly movements of both vehicles and pedestrians. This can accomplish many things, including:

- Direct the paths of vehicles so that not more than two paths cross at any one point
- Control the merging, diverging, or crossing angle of vehicles
- Decrease vehicle wander and the area of conflict among vehicles by reducing the amount of paved area
- Provide a clear indication of the proper path for different movements
- Give priority to the predominant movements
- Provide pedestrian refuge
- Provide separate storage lanes for turning vehicles, thereby creating space away from the path of through vehicles for turning vehicles to wait
- Provide space for traffic control devices so that they can be readily seen
- Control prohibited turns
- Separate different traffic movements at signalized intersections with multiple-phase signals
- Restrict the speeds of vehicles

3. Problem #7-6

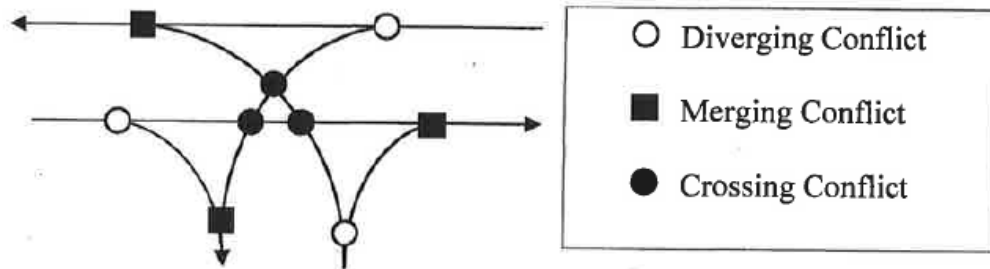
Discuss the fundamental general principles that should be used in designing a channelized at-grade intersection.

There are several fundamental principles considered in channelized intersection design. Regarding guidance to the motorist, motorists should not be required to make more than one decision at a time. Merging and weaving areas should be as long as possible, but other areas of conflict between vehicles should be reduced to a minimum. Crossing traffic streams that do not weave or merge should intersect at 90°, although a range of 60-120° is acceptable; adequate sight distance is provided regardless of angle. Sharp reverse curves and turning paths greater than 90° should be avoided. Separate space should be provided for turning vehicles so that they do not interfere with the movement of through vehicles. Prohibited turning movements should be blocked with channelized islands wherever possible. Finally, the location of essential traffic control devices should be considered in the design process.

Chapter 8 - Intersection Control

1. Problem #8-1

Using an appropriate diagram, identify all the possible conflict points at an unsignalized T intersection.



ABOVE AVERAGE

Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department



CVEG 4302 P01 – Transportation Engineering Design
Fall 2021

Homework Assignment #4 – Intersection Design and Control

Given: 18 November 2021

Due: 23 November 2021

Paige Hines, Nyja Kennedy, Mouni Yamba, Armando Gomez, Jonathon Warrior

Problems 7-4

What are the key defining characteristics of roundabouts that distinguish them from other traffic circles?

The roundabouts have distinguishing characteristics that separate them from the other circular intersections. The characteristics for the roundabouts are as follows:

- Yield control at each approach
- Separation of conflicting traffic movements through channelization, by pavement markings or raised islands
- Geometric characteristics of the central island that typically allow travel speeds of less than 30mi/h
- Parking not usually allowed within the circulating roadway

25

Problem 7-5

What are the main functions of channelization at an at-grade intersection?

The main functions of channelization at an at-grade intersection are as follow:

- Direct the paths of vehicles so that not more than two paths cross at any one point
- Control the merging, diverging, or crossing angle of vehicles
- Decrease vehicle wander and the area of conflict among vehicles by reducing the amount of paved area.
- Provide a clear indication of the proper path for different movement
- Give priority to the predominant movement
- Provide pedestrian refuge
- Provide separation storage lanes for turning vehicles, thereby crating space awasy from the path of through vehicles for turning vehicles to wait
- Provide space for traffic control devices so that they can be readily seen
- Control prohibited turns
- Separate different traffic movement at a signalized intersection with multiple-phases signals
- Restrict the speeds of vehicles

25

Problem 7-6

Discuss the fundamental general principles that should be used in designing a channelized at-grade intersection.

The fundamental principles that govern the designing a channelized at-grade intersection are as follows:

- Motorists should not be required to make more than one decision at a time
- Sharp reverse curves and turning paths greater than 90 degrees should be avoided
- Merging and weaving areas should be as long as possible, but other areas of conflict between vehicles should be reduced to a minimum
- Crossing traffic streams that do not weave or merge should intersect at 90 degrees, although a range of 60 to 120 degrees is acceptable
- The intersecting angle of merging streams should be such that adequate sight distance is provided
- Refuge areas for turning vehicles should not interfere with the movement of through vehicles
- Prohibited turns should be physically blocked wherever possible
- Decisions on the location of essential traffic control devices should be a component of the design process

25

Problem 8-1

Using an appropriate diagram, identify all the possible conflict points at an unsignalized T intersection.

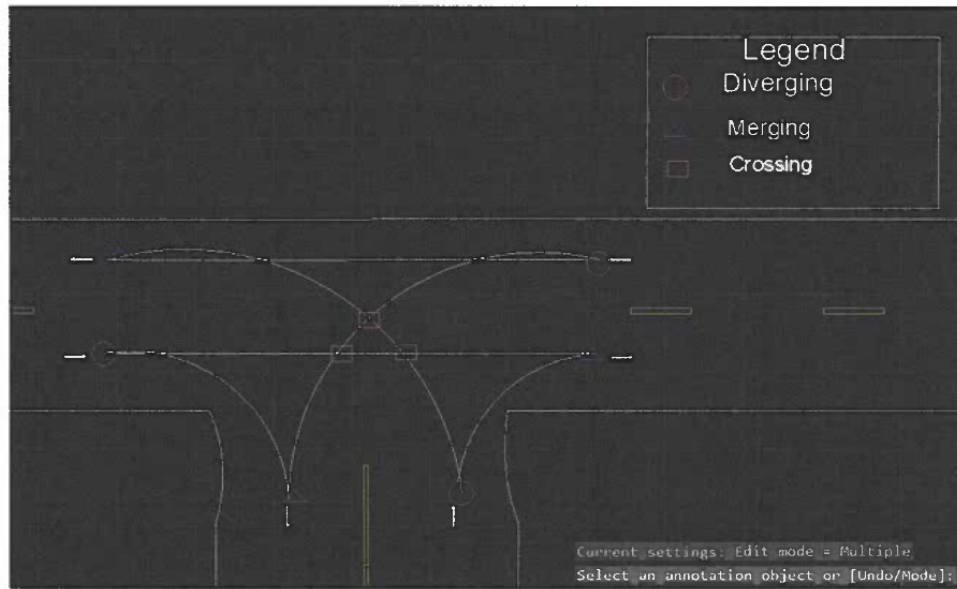


Figure 01: T Intersection Conflicts

There are three types of conflicts which are merging, diverging, and crossing. The total number of conflicting points at the T intersection denoted on figure 01 are nine.

- Diverging – 3
- Merging – 3
- Crossing – 3

✓ (25)

AVERAGE

NO AVERAGE STUDENT WORK SAMPLE FOR ASSIGNMENT #4

BELOW AVERAGE

Late Submission
10:46am

Department of Civil & Environmental Engineering
Prairie View A&M University

**CVEG 4302 P01 Transportation Engineering
Design**

Fall 2021

Homework Assignment #4 on
"Intersection Design and Control"

Given on
November 18, 2021

Submitted by
Sanjay Tillmuth
Autumn Carter
Darrell Patterson
Omar Rafey

On
November 23, 2021

To

Dr. Judy Perkins
Transportation Engineering Design Instructor
CIVIL & ENVIRONMENTAL ENGINEERING DEPARTMENT
TRANSPORTATION ENGINEERING DESIGN

87
100

Problem #7-4. What are the key defining characteristics of roundabouts that distinguish them from other traffic circles (Pg 315 in the textbook)? Roundabouts have specific defining characteristics that separate them from other circular intersections. These include:

- Yield control at each approach.
- Separation of conflicting traffic movements through channelization by pavement markings or raised islands.
- Geometric characteristics of the central island that typically allow travel speeds of less than 30 mi/h.
- Parking not usually allowed within the circulating roadway.



Problem #7-5. What are the main functions of channelization at an at-grade intersection? (Pg. 326 in the textbook) Channelization at an intersection is normally used to achieve one or more of the following objectives:

- Direct the paths of vehicles so that not more than two paths cross at any one point.
- Control the merging, diverging, or crossing angle of vehicles.
- Decrease vehicle wander and the area of conflict among vehicles by reducing the amount of paved area.
- Provide a clear indication of the proper path for different movements.
- Give priority to the predominant movements.
- Provide pedestrian refuge.
- Provide separate storage lanes for turning vehicles, thereby creating space away from the path of through vehicles for turning vehicles to wait.
- Provide space for traffic control devices so that they can be readily seen.
- Control prohibited turns.
- Separate different traffic movements at signalized intersections with multiple-phase signals.
- Restrict the speeds of vehicles.

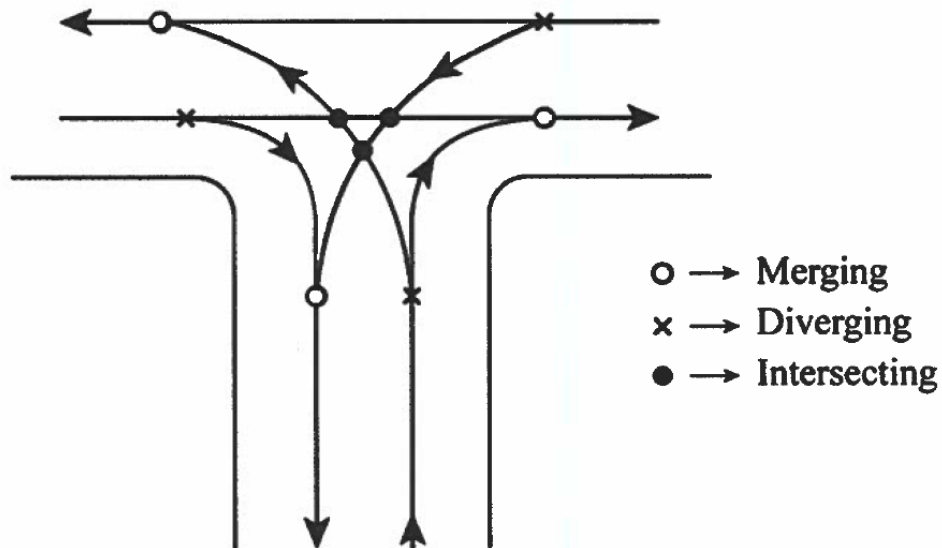
25

Problem #7-6. Discuss the fundamental general principles that should be used in designing a channelized at-grade intersection? (Pg. 326 in the textbook) The design of channelized intersection also always should be governed by the following principle:

- Motorists should not be required to make more than one decision at a time.
- Sharp reverse curves and turning paths greater than 90 degrees should be avoided.
- Merging and weaving areas should be as long as possible, but other areas of conflict between vehicles should be reduced to a minimum.
- Crossing traffic streams that do not weave or merge should intersect at 90 degrees, although a range of 60-120 degrees is acceptable.
- The intersecting angle of merging streams should be such that adequate sight distance is provided.
- Refuge areas for turning vehicles should not interfere with the movement of through vehicles.
- Prohibited turns should be physically blocked wherever possible.
- Decisions on the location of essential traffic control devices should be a component of the design process.

25

Problem #8-1 Using an appropriate diagram, identify all of the possible conflict points at an unsignalized T-intersection



Types of Conflicts	Number of Conflict Points
Merging Conflict	3
Diverging Conflict	3
Intersecting Conflict	3

23

There are 9 conflict points in this case. The value of possible conflict points at any intersection revolve around the number of approaches, the turning movements, and the type of traffic control at the intersection.

Definition of Terms.

Merging -Combine or cause to combine to form a single entity.

Diverging- To go or extend in different directions from a common point.

Intersecting- To cut across or through.

**CIVIL & ENVIRONMENTAL ENGINEERING DEPARTMENT
OUTCOMES SPECIFIC ASSIGNMENT COVER SHEET
CVEG 4302: TRANSPORTATION ENGINEERING DESIGN
FALL 2021**

Instructor: Dr. Judy A. Perkins

Title of Assignment

**HOMEWORK ASSIGNMENT #5 –
PARKING ANALYSIS AND DESIGN**

Outcome Measured Using this Assignment

Outcome 1

An ability to identify, formulate, and solve **complex engineering problems** by applying principles of engineering, science, and mathematic.

Check the complex engineering problem characteristics related to this assignment

Assignment problem	
☒	involves wide-ranging or conflicting technical issues,
☒	has no obvious solution
☐	Addresses problems not encompassed by current standards and codes
☐	involves diverse groups of stakeholders
☒	includes many component parts or sub-problems
☐	involves multiple disciplines
☒	has significant consequences in a range of contexts
Assignment problem involves the application of the principles of	
☒	engineering
☐	science
☒	mathematics

Brief justification of the suitability of assignment for the outcome

This parking assignment requires the students to use their understanding of topics related parking studies, parking analysis, and parking design In order to develop solutions to the questions.

ASSIGNMENT STATEMENT/QUESTIONS
Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department

CVEG 4302 – Transportation Engineering Design
Fall 2021

Homework Assignment #5 – Parking Analysis and Design
Given: 23 November 2021

Due: 30 November 2021 NLT 8:05am CST

Total point value is (100-points)

- **Measuring ABET Criterion 3. Student Outcome 1** - an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
1. This is a group assignment.
 - Use the format - Given, Find, Approach, and Blocking of Answers - when solving Problem #1
 - Place the responses to each problem on this document. Feel free to write on the back of the page.
 - The response to **Problem #4** will need to be drawn on 8.5-inch by 11-inch paper and attached to this document.
 2. Your assignment submission will need to include a single cover page that follows the format shown below:
 - Assignment Cover Page:
 - **Complete** title of assignment
 - Course number, section and name
 - First Name and Last Name of each group member
 - Given Date of Assignment
 - Due Date of Assignment

Parking Analysis

1. When designing an on-street parking facility, the number of spaces required when the angle of inclination is zero (0) degrees and the curb length is 500 feet will be _____. (10-points)
2. When using the parking space hour supply equation, you must take into account efficiency of the facility during its highest demand period. What is the average efficiency factor that you must use if you are addressing curb parking? (10-points)
3. What are the parking operations entrance considerations that your team is expected to use? (10-points)

Parking Design

4. Provide an AutoCAD drawing to scale of a parking facility **exit** that must adhere to the following: (a) multiple exit lanes to help right turning vehicles avoid waiting for left turning vehicles and (b) placement at mid-block. Also, include at a minimum (1) dimensions throughout the drawing, (2) north arrow, (3) scale, (4) title block, and (5) appropriate labels. (70-points)

GRADING SCHEME FOR ASSIGNMENT
Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department

CVEG 4302 – Transportation Engineering Design
Fall 2021

Homework Assignment #5 – Parking Analysis and Design

Given: 23 November 2021

Due: 30 November 2021 NLT 8:05am CST

Total point value is (100-points)

- **Measuring ABET Criterion 3. Student Outcome 1** - an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
1. This is a group assignment.
 - Use the format - Given, Find, Approach, and Blocking of Answers - when solving Problem #1
 - Place the responses to each problem on this document. Feel free to write on the back of the page.
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 - First Name and Last Name of each group member
 - Given Date of Assignment
 - Due Date of Assignment

Parking Analysis

1. When designing an on-street parking facility, the number of spaces required when the angle of inclination is zero (0) degrees and the curb length is 500 feet will be _____. (10-points)

$$N = L/22 = 500/22 = 22.7 \sim 23 \text{ spaces}$$

2. When using the parking space hour supply equation, you must take into account efficiency of the facility during its highest demand period. What is the average efficiency factor that you must use if you are addressing curb parking? (10-points)

78% - 96%, average 90%

3. What are the parking operations entrance considerations that your team is expected to use? (10-points)

- **Entrance Considerations**
 - a. **Locate as far from the roadway, an intersection, and conflicting points as possible.**
 - b. **Multiple entrances may ease access and reduce restriction on adjacent roadways.**
 - c. **Place mid-block.**
 - d. **Local ordinances and codes can restrict the number of entrances**

Parking Design

4. Provide an AutoCAD drawing to scale of a parking facility **exit** that must adhere to the following: (a) multiple exit lanes to help right turning vehicles avoid waiting for left turning vehicles and (b) placement at mid-block. Also, include at a minimum (1) dimensions throughout the drawing, (2) north arrow, (3) scale, (4) title block, and (5) appropriate labels. (70-points)

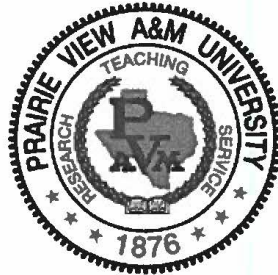
OPEN-END RESPONSE

ABOVE AVERAGE

LATE 8:50 AM

-10 pts

Department of Civil & Environmental Engineering
Prairie View A&M University



67/100

**CVEG 4302 P01 Transportation Engineering
Design**

Fall 2021

Homework Assignment #5 on
"Parking Analysis and Design"

Given on
November 23, 2021

Submitted by
Sanjay Tillmurt ✓
Autumn Carter ✓
Darrell Patterson ✓
Omar Rafey ✓

On
November 30, 2021

To

Dr. Judy Perkins
Transportation Engineering Design Instructor
CIVIL & ENVIRONMENTAL ENGINEERING DEPARTMENT
TRANSPORTATION ENGINEERING DESIGN

Parking Analysis

1. When designing an on-street parking facility, the number of spaces required when the angle of inclination is zero (0) degrees and the curb length is 500 feet will be _____.
(10-points)

Given: Curb Length, $L = 500$ ft
Angle of Inclination = 0° (Parallel)
On Street Parking Facility

Find: # of Spaces, N

Approach:

As seen in Fig. 1, the number of spaces required when the angle of inclination is zero (0°) is:

$$N = \frac{L}{22} = \frac{500 \text{ ft}}{22} = 22.73 \text{ spaces} \approx \boxed{23 \text{ Parking Spaces}}$$

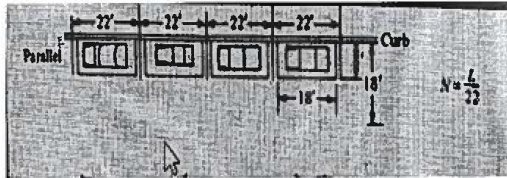


Figure 1 – Street Space Used for Parallel Configuration

2. When using the parking space hour supply equation, you must take into account efficiency of the facility during its highest demand period. What is the average efficiency factor that you must use if you are addressing curb parking? (10-points)

The parking supply estimation calculation is expressed as

$$S = f \sum_{j=1}^M t_j$$

Simply stated: $S = f \cdot t_{\text{ave/space}} \cdot M$ where:

S = practical number of space-hours of supply for a specific period

M = number of parking spaces available

t_j = total length of time in hours when the j -th space can be legally parked on during the specific period.

f = efficiency factor to consider the time lost during turnovers

Efficiency Factor Table- f

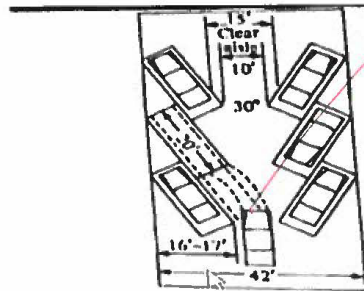
Parking Facility	Percentage	Average Percentage
Curb Parking	78-96	90
Surface Lots	75-92	85
Garages	75-92	80

When addressing curb parking the average efficiency factor will be 90%.

+10

3. What are the **parking operations entrance** considerations that your team is expected to use? (10-points)

Our team was tasked with designing a 30° parking lot. So, for our lot we are expected to consider: (1) the stall and aisle dimensions and make sure they're compatible with the type of operation planned for the facility, (2) the width, length of stalls, width of aisles, and radius of turns, and (3) seeing if we can get to incorporate a module into our parking arrangement. In Figure 2 below, the 30° parking lot has a module incorporated with one direction of traffic flow. There is a 10-foot width between parking stalls on each side of the aisle.



+10

Figure 2 – Parking Stall Layout

Parking Design

4. Provide an AutoCAD drawing to scale of a parking facility **exit** that must adhere to the following: (a) multiple exit lanes to help right turning vehicles avoid waiting for left turning vehicles and (b) placement at mid-block. Also, include at a minimum (1) dimensions

throughout the drawing, (2) north arrow, (3) scale, (4) title block, and (5) appropriate labels.
(70-points)

AVERAGE

NO AVERAGE STUDENT WORK SAMPLE FOR ASSIGNMENT #5

BELOW AVERAGE

MAALVIKA AGGARWAL
GROUP-1
11-30-21

Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department

CVEG 4302 – Transportation Engineering Design
Fall 2021
Homework Assignment #5 – Parking Analysis and Design
Given: 23 November 2021
Due: 30 November 2021 NLT 8:05am CST
Total point value is (100-points)

41/100

- Measure Program Learning Outcome ABET Criterion 3 (5) - an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
1. This is a group assignment.
 - Use the format - Given, Find, Approach, and Blocking of Answers - when solving Problem #1
 - Place the responses to each problem on this document. Feel free to write on the back of the page.
 - The response to **Problem #4** will need to be drawn on 8.5-inch by 11-inch paper and attached to this document.
 2. Your assignment submission will need to include a single cover page that follows the format shown below:
 - Assignment Cover Page:
 - **Complete** title of assignment
 - Course number, section and name
 - First Name and Last Name of each group member
 - Given Date of Assignment
 - Due Date of Assignment

MISSING
-5

Parking Analysis

1. When designing an on-street parking facility, the number of spaces required when the angle of inclination is zero (0) degrees and the curb length is 500 feet will be _____. (10-points)

Given: length of curb = 500 ft
Angle of inclination = 0° = Parallel

To find: No. of spaces required, N

Approach: using $N = \frac{L}{22}$ [Parallel]

$$N = \frac{500}{22} = 22.72 \approx \boxed{23 \text{ spaces}}$$

2. When using the parking space hour supply equation, you must take into account efficiency of the facility during its highest demand period. What is the average efficiency factor that you must use if you are addressing curb parking? (10-points)

Average efficiency factor should be 90% for curb parking.

3. What are the parking operations entrance considerations that your team is expected to use? (10-points)

Entrance considerations

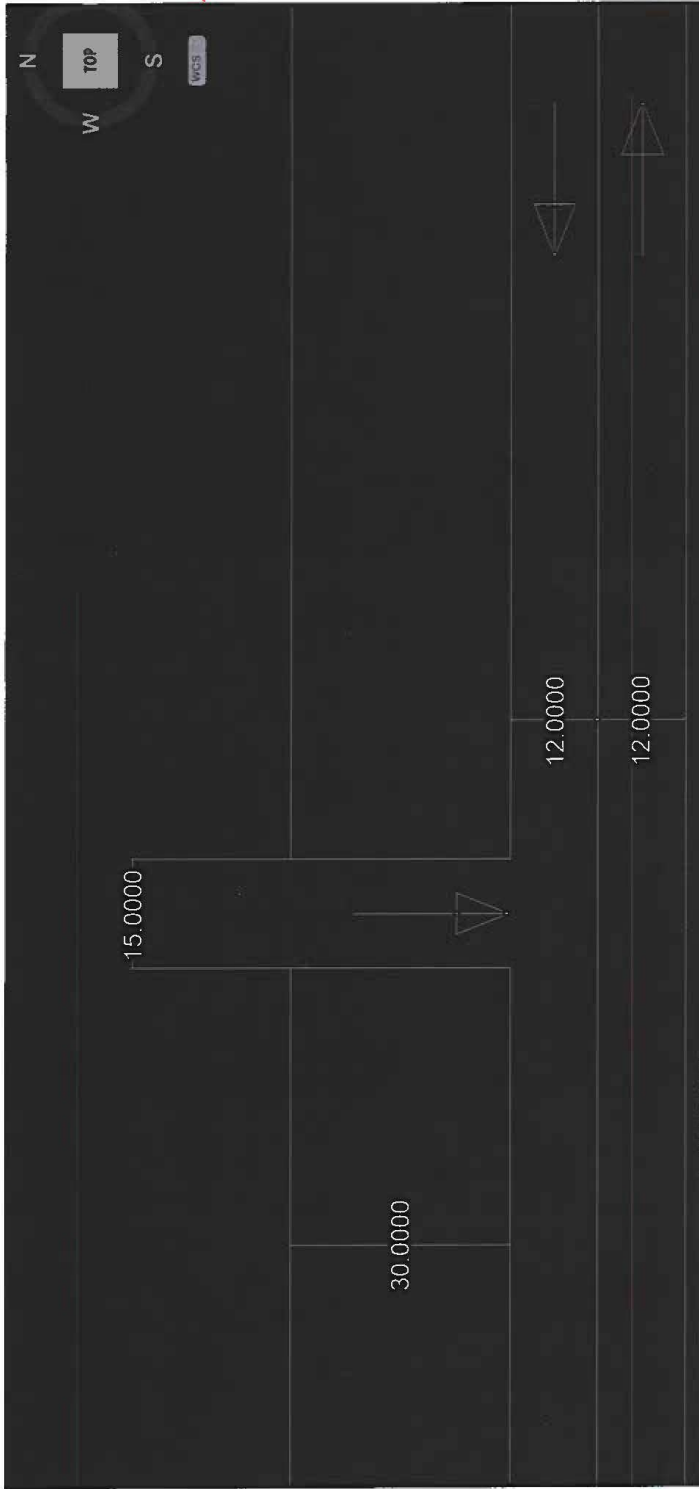
- 1) locate as far from roadway, an intersection, & conflicting points as possible.
- 2) Multiple entrances may ease access and reduce restriction on adjacent roadways.
- 3) Placing mid-blocks when possible.
- 4) local ordinances and codes can restrict number of entrances.

Parking Design

4. Provide an AutoCAD drawing to scale of a parking facility exit that must adhere to the following: (a) multiple exit lanes to help right turning vehicles avoid waiting for left turning vehicles and (b) placement at mid-block. Also, include at a minimum (1) dimensions throughout the drawing, (2) north arrow, (3) scale, (4) title block, and (5) appropriate labels. (70-points)

" Attached to the document "





f8 dimension except 2 place beyond decimal point why? - 2 pts

Scale ? - 10

title block ? - 10

Label ? - 10

mid-block ? - 10
multiple ext lines ? - 10

(16)

ASSIGNMENTS FOR OUTCOME 5

An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

**CIVIL & ENVIRONMENTAL ENGINEERING DEPARTMENT
OUTCOMES SPECIFIC ASSIGNMENT COVER SHEET
CVEG 4302: TRANSPORTATION ENGINEERING DESIGN
FALL 2021**

Instructor: Dr. Judy A. Perkins

Title of Assignment

**HOMEWORK ASSIGNMENT #1 –
TERM PROJECT TEAM BUILDING**

Outcome Measured Using this Assignment

Outcome 5

An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

Check the teaming problem characteristics related to this assignment

Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment.	
Requires students working in groups to:	
X	Organize and assign team roles; plan and keep good record of team meetings including documentation of individual contributions
X	Share ideas, complete assigned task on time, help others, and be professional to each other (through peer evaluation of team members on these characteristics).
X	Resolve conflicts professionally within the group with the view of creating an inclusive and collaborative environment
Establish goals, plan tasks, and meet objectives.	
Requires students working in groups to:	
X	Set goals and objectives
X	Identify and break down work into tasks and subtasks and identify the personnel and deliverables for each.
X	Develop a Gantt chart and critical path analysis for managing the project.
X	Establish major milestones for tracking progress and define performance metrics to measure success.
X	Track progress of team members to ensure project is on schedule and meets objectives (through submission of progress reports).

Brief justification of the suitability of assignment for the outcome

Designed to supplement and reinforce Team building skills needed to complete a single task of an undergraduate level open-ended design project in a given semester.

ASSIGNMENT STATEMENT/QUESTIONS

Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department

CVEG 4302 – Transportation Engineering Design
Fall 2021

Homework Assignment #1 - Term Project Team Building

Given: 23 September 2021

Due: 30 September 2021 NLT 8:05am CST

Total point value is (100-points)

- Measuring ABET Criterion 3. Student Outcome 3 - an ability to communicate effectively with a range of audiences
 - **Measuring ABET Criterion 3. Student Outcome 5** - An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
1. This is a group assignment.
 - Determine the name of your group.
 - Create the organizational structure of your group using the software of your choice. Ensure the division of labor at a minimum aligns with the project scope hand out.
 - Use Microsoft Project software to create a Gantt chart that aligns with your organizational structure and the project scope hand out. Ensure the Gantt chart fits on a single page. Ensure it displays a wide array of symbols that articulates at a minimum the work effort outlined in the project scope hand out.
 2. Your assignment submission will need to include a single cover page that follows the format shown below:
 - Assignment Cover Page:
 - **Complete** title of assignment
 - Course number, section and name
 - First Name and Last Name of each group member
 - Given Date of Assignment
 - Due Date of Assignment
 3. Convert the assignment requirements into a single PDF and submit the group's Dropbox folder.

GRADING SCHEME FOR ASSIGNMENT
Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department

CVEG 4302 – Transportation Engineering Design
Fall 2021

Homework Assignment #1 - Term Project Team Building

Given: 23 September 2021

Due: 30 September 2021 NLT 8:05am CST

Total point value is (100-points)

- Measuring ABET Criterion 3. Student Outcome 3 - an ability to communicate effectively with a range of audiences
 - **Measuring ABET Criterion 3. Student Outcome 5** - An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
1. This is a group assignment.
 - Determine the name of your group. **(15-points)**
 - Create the organizational structure of your group using the software of your choice. **(15-points)**
 - Ensure the division of labor at a minimum aligns with the project scope hand out. **(15-points)**
 - Use Microsoft Project software to create a Gantt chart that aligns with your organizational structure and the project scope hand out. **(30-points)**
 - Ensure the Gantt chart fits on a single page. **(5-points)**
 - Ensure it displays a wide array of symbols that articulates at a minimum the work effort outlined in the project scope hand out. **(10-points)**
 2. Your assignment submission will need to include a single cover page that follows the format shown below:
 - Assignment Cover Page: **(10-points)**
 - **Complete** title of assignment
 - Course number, section and name
 - First Name and Last Name of each group member
 - Given Date of Assignment
 - Due Date of Assignment
 3. Convert the assignment requirements into a single PDF and submit the deliverables.

ABOVE AVERAGE

Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department



88.5
100

CVEG 4302 P01 – Transportation Engineering Design

Spring 2021

Homework Assignment #1 – Term Project Team
Building

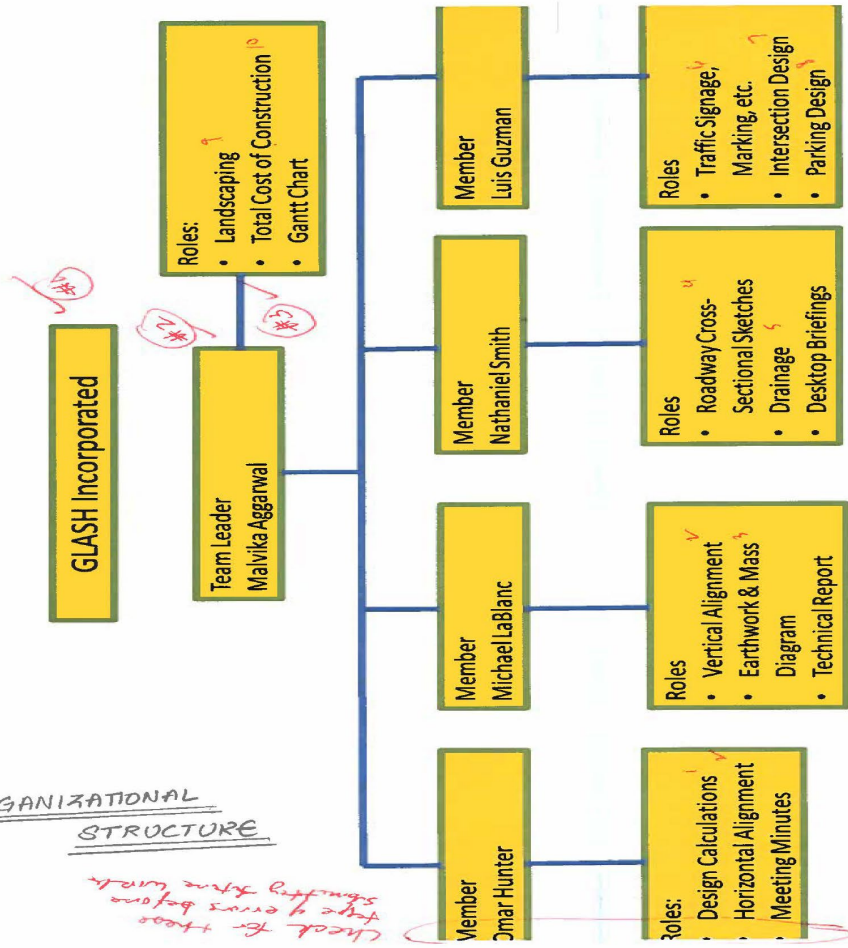
Maalvika Aggarwal, Luis Guzman, Omar Hunter, Nathaniel
Smith, Michael LeBlanc

49

Given: 23 September 2021

Due: 30 September 2021

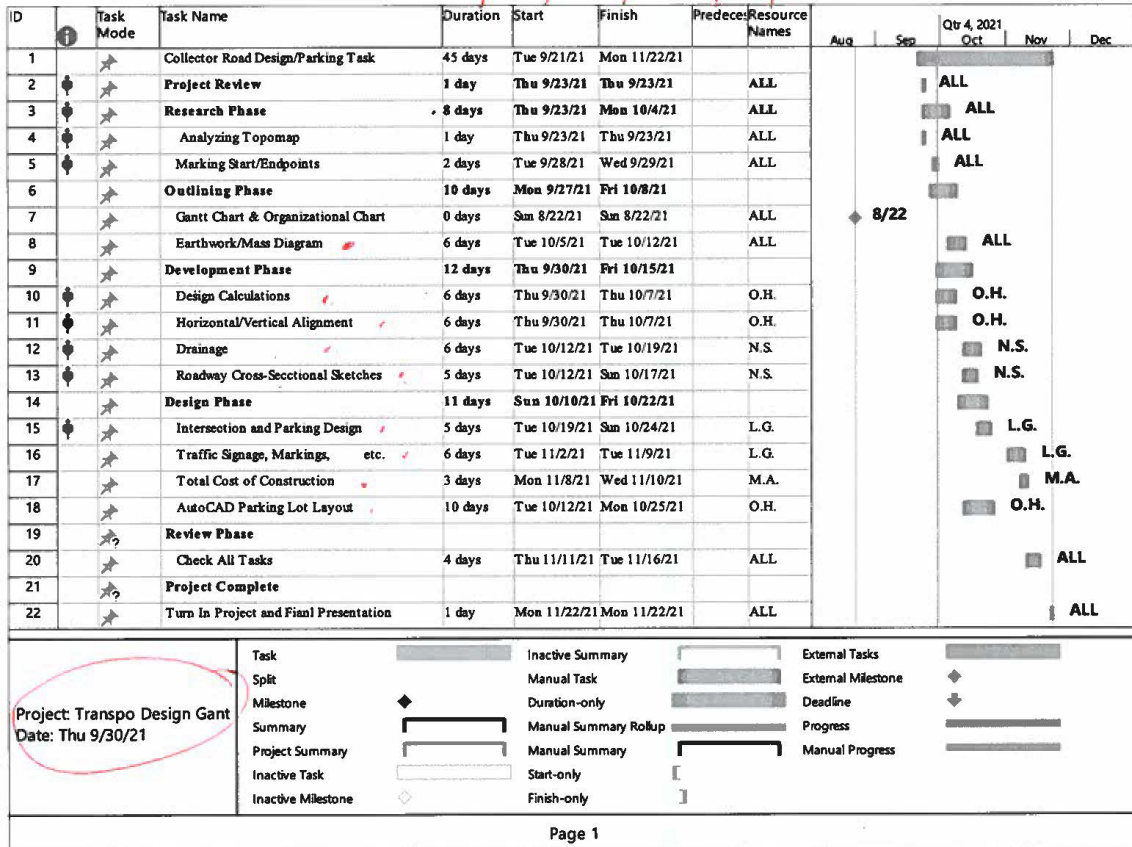
ORGANIZATIONAL
STRUCTURE



GANTT CHART

#5
? Landscaping
-1.5

collapse these columns



#6 -1.5
missing
Landscaping

#6

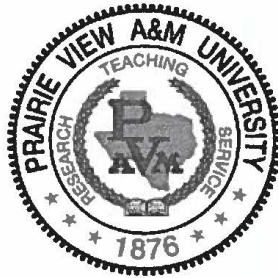
-7.5
Did not
display a
wide array of
symbols on the
Gantt chart

AVERAGE

NO AVERAGE STUDENT WORK SAMPLE FOR ASSIGNMENT #1

BELOW AVERAGE

Department of Civil & Environmental Engineering
Prairie View A&M University



CVEG 4302 P01 Transportation Engineering Design

Fall 2021

Homework Assignment #1 on
“Term Project Team Building”

76
—
100

Given on
September 23, 2021

Submitted by
Sanjay Tillmutter
Autumn Carter
Darrell Patterson
Omar Rafey
Dakaylon Senegal

100

On
September 30, 2021

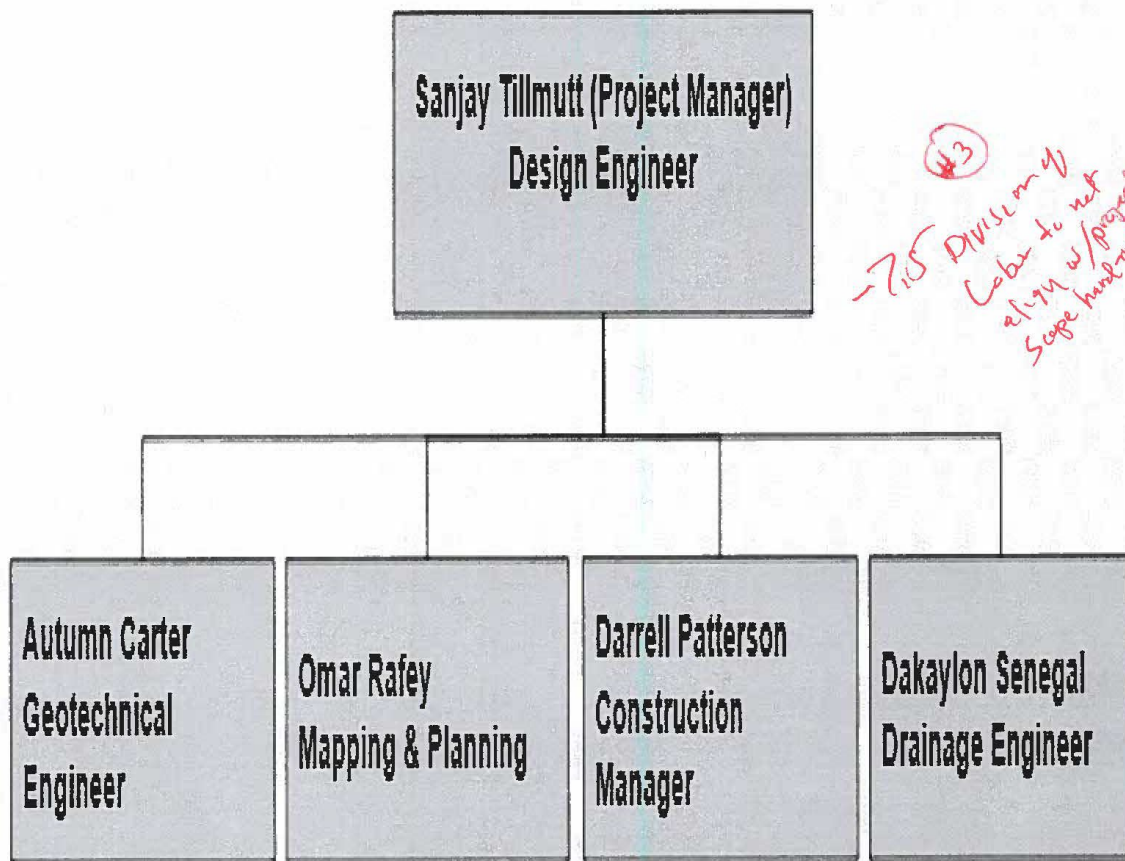
To

Dr. Judy Perkins
Transportation Engineering Design Instructor
CIVIL & ENVIRONMENTAL ENGINEERING DEPARTMENT

TRANSPORTATION ENGINEERING DESIGN

On-Point Engineering Solutions Organizational Chart

#1 +15
#2 ✓ +15



#3
-7.5 Divide in 4
Labor to not
align w/ project
Scope hand out

ID	Task Mode	Task Name	Duration	Start	Finish
1	★	Task Group One	6 days	Mon 9/27/21	Mon 10/4/21
2	★	Team Building	1 day	Mon 9/27/21	Mon 9/27/21
3	★	Workload Distribution	3 days	Mon 9/27/21	Wed 9/29/21
4	★	Design Calculation	3 days	Thu 9/30/21	Mon 10/4/21
5	★	Task Group Two	4 days	Tue 10/5/21	Sun 10/10/21
6	★	Obtain Dr. Perkins Approval	0 days	Tue 10/5/21	Tue 10/5/21
7	★	Horizontal Alignment	4 days	Wed 10/6/21	Sun 10/10/21
8	★	Task Group Three	5 days	Mon 10/11/21	Sun 10/17/21
9	★	Vertical Alignment	4 days	Mon 10/11/21	Tue 10/14/21
10	★	Earthwork	2 days	Fri 10/15/21	Sun 10/17/21
11	★	Task Group Four	10 days	Mon 10/18/21	Sun 10/31/21
12	★	Drainage	6 days	Mon 10/18/21	Sun 10/24/21
13	★	Roadway	2 days	Mon 10/25/21	Tue 10/26/21
		Cross-Sectional Sketches			
14	★	Intersection Design	2 days	Wed 10/27/21	Thu 10/28/21
15	★	Traffic Signage	2 days	Fri 10/29/21	Sun 10/31/21
16	★	Task Group Six	5 days	Mon 11/1/21	Sun 11/7/21
17	★	Parking Design	6 days	Mon 11/1/21	Sun 11/7/21
18	★	Begin Writing Report	0 days	Mon 11/1/21	Mon 11/1/21
19	★	Task Group Seven	3 days	Mon 11/8/21	Wed 11/10/21
20	★	Landscaping	2 days	Mon 11/8/21	Tue 11/9/21
21	★	Total Cost of Construction	3 days	Mon 11/8/21	Wed 11/10/21
22	★	Task Group Eight	6 days	Thu 11/11/21	Thu 11/18/21
23	★	Revision of Report	6 days	Thu 11/11/21	Thu 11/18/21
24	★	Presentation Practice	1 day	Thu 11/18/21	Thu 11/18/21

Task	Inactive Task	Inactive Milestone	Manual Summary Rollup	External Milestone
Split				
Project: OIEG 4802 On Point G				
Date: Wed 9/29/21				
Milestone				
Summary				
Project Summary				

**CIVIL & ENVIRONMENTAL ENGINEERING DEPARTMENT
OUTCOMES SPECIFIC ASSIGNMENT COVER SHEET
CVEG 4302: TRANSPORTATION ENGINEERING DESIGN
FALL 2021**

Instructor: Dr. Judy A. Perkins

Title of Assignment

**HOMEWORK ASSIGNMENT #2 - TERM
PROJECT COGO DATA & GANTT CHART**

Outcome Measured Using this Assignment

Outcome 5

An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

Check the teaming problem characteristics related to this assignment

Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment.	
Requires students working in groups to:	
X	Organize and assign team roles; plan and keep good record of team meetings including documentation of individual contributions
X	Share ideas, complete assigned task on time, help others, and be professional to each other (through peer evaluation of team members on these characteristics).
X	Resolve conflicts professionally within the group with the view of creating an inclusive and collaborative environment
Establish goals, plan tasks, and meet objectives.	
Requires students working in groups to:	
X	Set goals and objectives
X	Identify and break down work into tasks and subtasks and identify the personnel and deliverables for each.
X	Develop a Gantt chart and critical path analysis for managing the project.
X	Establish major milestones for tracking progress and define performance metrics to measure success.
X	Track progress of team members to ensure project is on schedule and meets objectives (through submission of progress reports).

Brief justification of the suitability of assignment for the outcome

Designed to supplement and reinforce Team building skills needed to complete an undergraduate level open-ended design project in a given semester.

ASSIGNMENT STATEMENT/QUESTIONS
Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department

CVEG 4302 – Transportation Engineering Design
Fall 2021

Homework Assignment #2 - Term Project COGO Data & Gantt Chart

Given: 14 October 2021

Due: 21 October 2021 NLT 8:05am CDT

Total point value is (100-points)

- Measuring ABET Criterion 3. Student Outcome 3 - an ability to communicate effectively with a range of audiences
 - **Measuring ABET Criterion 3. Student Outcome 5** - An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
1. This is a group assignment.
 - Create a sketch of your horizontal and vertical alignment as per the example found in the COGO handout. Ensure you follow the example as found in the COGO handout.
 - Use **Microsoft Project software only** to create a Gantt chart that aligns with your organizational structure and the actual term project scope. Ensure the Gantt chart fits on a single page. Ensure it displays a wide array of symbols that articulates at a minimum the work effort outlined in the actual term project scope.
 2. Your assignment submission will need to include a single cover page that follows the format shown below:
 - Assignment Cover Page:
 - **Complete** title of assignment
 - Course number, section and name
 - First Name and Last Name of each group member
 - Given Date of Assignment
 - Due Date of Assignment

GRADING SCHEME FOR ASSIGNMENT
Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department

CVEG 4302 – Transportation Engineering Design
Fall 2021

Homework Assignment #2 - Term Project COGO Data & Gantt Chart

Given: 14 October 2021

Due: 21 October 2021 NLT 8:05am CDT

Total point value is (100-points)

- Measuring ABET Criterion 3. Student Outcome 3 - an ability to communicate effectively with a range of audiences
 - **Measuring ABET Criterion 3. Student Outcome 5** - An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
3. This is a group assignment.
- Create a sketch of your horizontal and vertical alignment as per the example found in the COGO handout. Ensure you follow the example as found in the COGO handout. (38.5-points)
 - Use **Microsoft Project software only** to create a Gantt chart that aligns with your organizational structure and the actual term project scope. Ensure the Gantt chart fits on a single page. Ensure it displays a wide array of symbols that articulates at a minimum the work effort outlined in the actual term project scope. (51.5-points)
4. Your assignment submission will need to include a single cover page that follows the format shown below:
- Assignment Cover Page: (10-points)
 - **Complete** title of assignment
 - Course number, section and name
 - First Name and Last Name of each group member
 - Given Date of Assignment
 - Due Date of Assignment

ABOVE AVERAGE

Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department



94.5
100

CVEG 4302 P01 – Transportation Engineering Design ✓

Fall 2021

Homework Assignment #2 – Term Project COGO

Data & Gantt Chart ✓

**Maalvika Aggarwal, Omar Hunter, Nathaniel Smith,
Michael LeBlanc, Luis Guzman ✓**

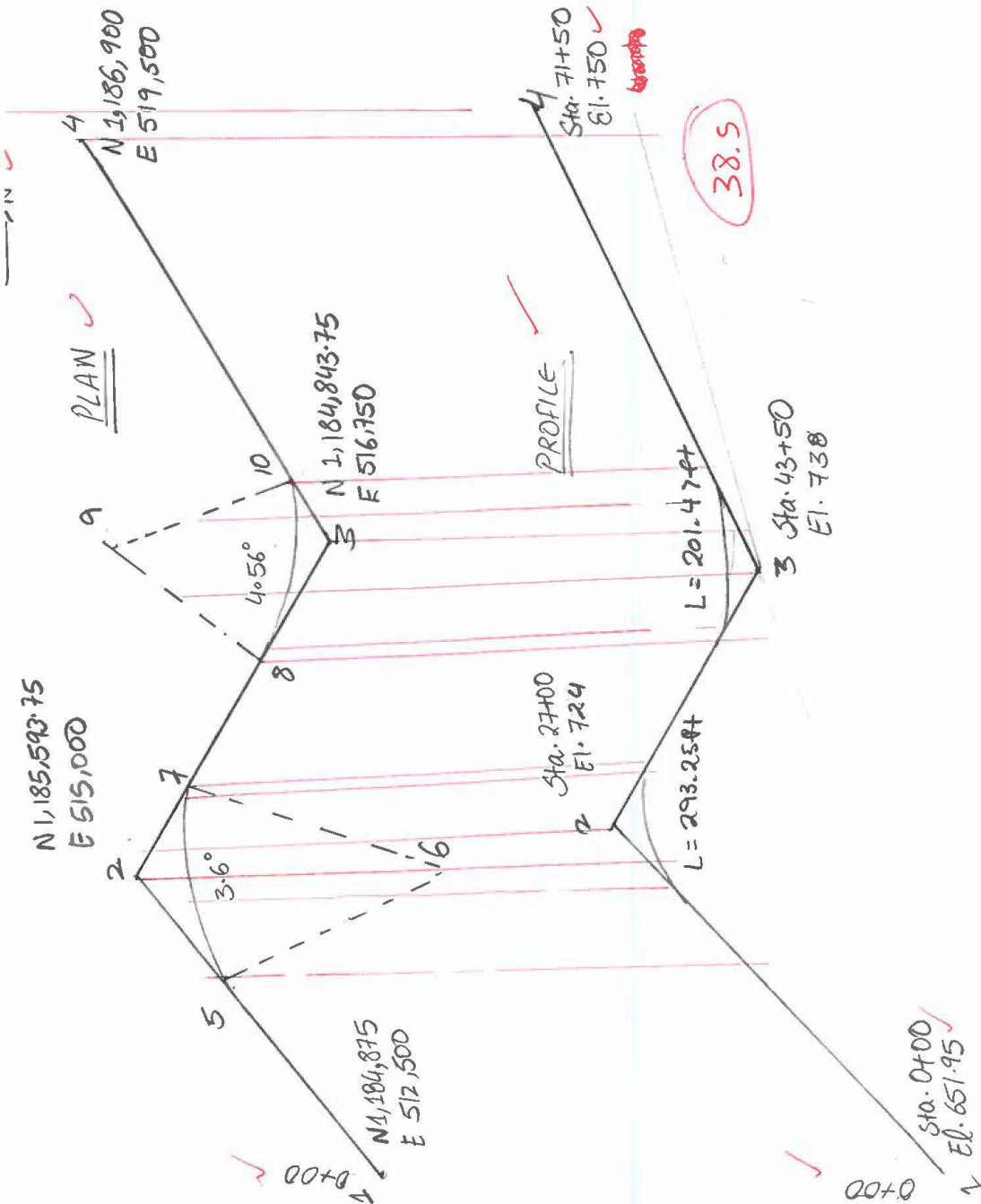
+10

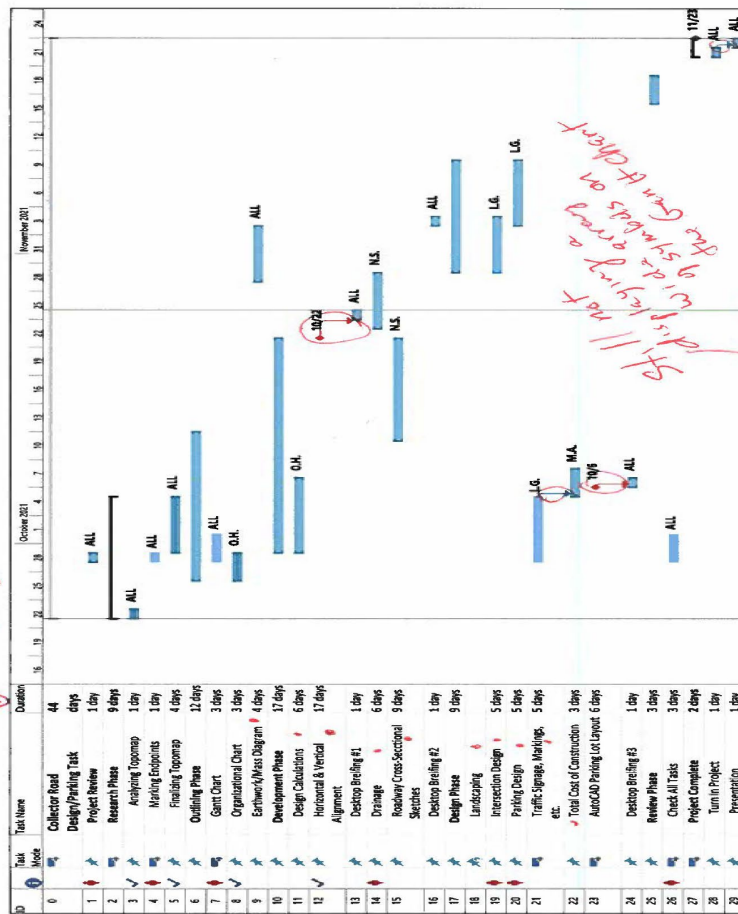
Given: 14 October 2021 ✓

Due: 21 October 2021 ✓

GROUP 1
10-20-21

Sketch of HORIZONTAL & VERTICAL ALIGNMENT





Sh // not
w/ die errors on
the GenT client

5.41

1) complete - 1

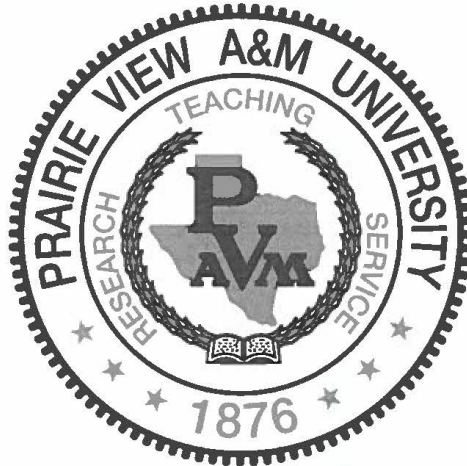
	Task	Project Summary	Manual Task	Start-only	Star-only	£	Deadline	↓
Project Collopy Road Design Date: 10/10/2021	Split	Incentive Task	Dominic-only	Finis-only	Finis-only	£	Progress	—
	Milestone	Incentive Milestone	Manual Summary/Setup	External Task	External Task	£	Manual Progress	—
	Summary	Incentive Summary	Manual Summary	External Utilization	External Utilization	£		

AVERAGE

NO AVERAGE STUDENT WORK SAMPLE FOR ASSIGNMENT #2

BELOW AVERAGE

Prairie View A&M University
Roy G. Perry College of Engineering
Civil & Environmental Engineering Department



78.5
100

CVEG 4302- Transportation Engineering Fall 2021
Nyja Kennedy, Paige Hines, Jonathon Warrior, Armando
Gomez, and Mouni Yamba

Given: 14 October 2021

Due: 20 October 2021

title missing -2

(+6)

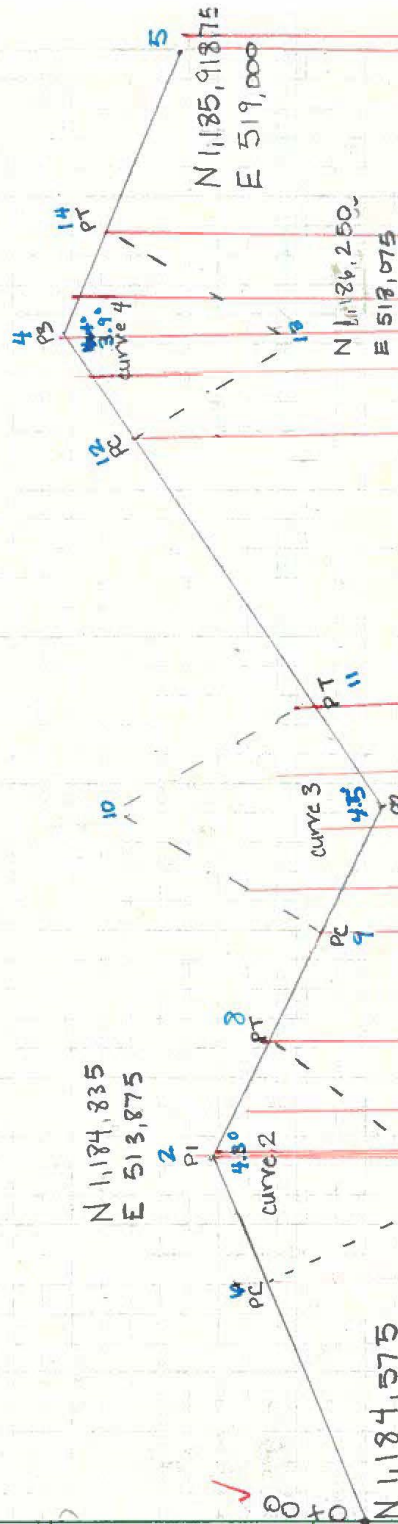
Both sketches should be on the
same page -10

N →

PLAN ✓

25.5

Horizontal Align.



N 1,184,362.5
E 515,150

N 1,186,250
E 518,075

North
Arrow
missing

Profile ✓

Vertical Align.

Elevation
654 ft.

Sta 2+87.5
L: 109.3 ft
Elevation = 690 ft

Sta = 18+12.5
L = 1297.87
Elevation = 692 ft

Units
missing

L = 1256.41
Sta = 42+21.273
Elevation = 721 ft
Sta = 52+07.87
Elev = 745 ft
Units
missing

[illegible]