



INSTITUTE OF TRANSPORTATION ENGINEERS
BRIGHAM YOUNG UNIVERSITY CHAPTER

November 17, 2017

Amit Kothari
Technical Committee Chair
ITE Western District

RE: 2018 Data Collection Project Proposal

Mr. Kothari,

Thank you for the opportunity to submit a proposal for the Institute of Transportation Engineers (ITE) Western District 2018 Data Collection Project. As members of the Brigham Young University (BYU) Student Chapter of ITE, we understand the importance of reliable transportation data for planning and operations in the transportation field and are excited to have the opportunity to submit this proposal for data collection.

Attached, please find our proposal to collect trip generation and parking demand data for the Provo Assisted Living facility in Provo, Utah. This is an assisted living land use which corresponds best to the ITE land use 254. This site was chosen because the assisted living land use is very underrepresented in the *ITE Trip Generation Manual*, especially for morning and evening peak hour trips. In addition, continuing data collection on this new land use would help improve the depth of information available in the *ITE Trip Generation Manual*. The proposal contains the scope of work to be completed, mentoring for the project, a proposed schedule for the work, the anticipated level of effort in person-hours to complete the project, project management contract information and a summary of how the funds will be used. The statement to hold ITE harmless is included in the proposal.

We are confident that our student chapter will submit accurate data and a thorough, professionally prepared report. Our goal will be to use these funds for participation in ITE events at the Chapter, Section, and/or District levels. Specifically, these funds will be used to help students attend and participate in the 2018 Western District Annual Meeting in Keystone, Colorado.

Thank you for considering our proposal to complete this data collection project and receive data collection funds. If you have any questions about our proposal, please feel free contact me by email at Joshua.alpers92@gmail.com or by telephone at (801) 360-4157.

Sincerely,

Joshua E. Alpers, E.I.T.
Vice President
BYU ITE Student Chapter

Data Collection Scope

The Brigham Young University Institute of Transportation Engineers (BYU ITE) student chapter proposes to collect trip generation and parking demand data at the Provo Assisted Living facility in Provo, Utah. This is an assisted living land use which corresponds to the ITE land use 254, “Assisted Living”.

The Provo Assisted Living facility is located at 462 South 900 East in Provo, Utah. An image of the site location is shown in Figure 1. The facility has two accesses to the roadway on the west side of 900 East. Based on satellite imagery, it is estimated that the facility has approximately 22,000 square feet of floor space. At the present time, the number of beds, occupied beds, and employees of the facility is not known. BYU ITE has spoken with the owner of the facility and have been granted permission to collect data on the site.

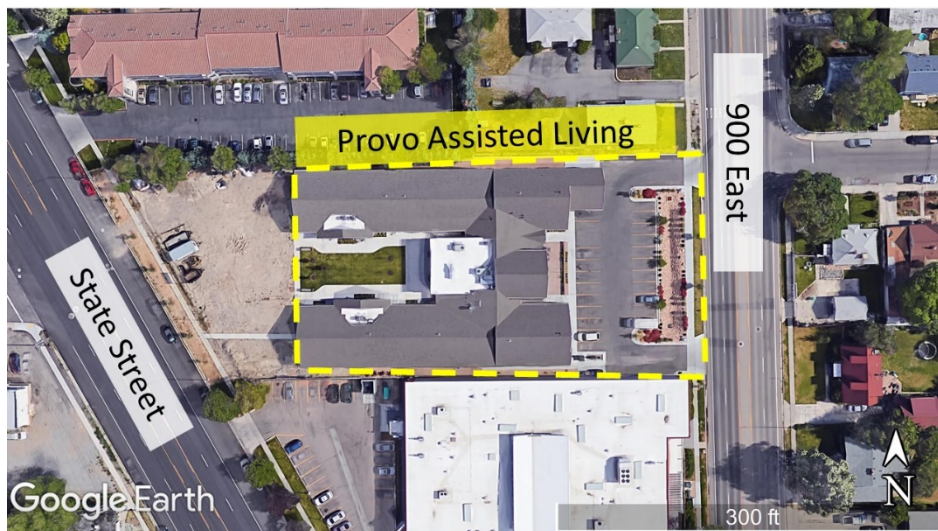


Figure 1: Data Collection Site Map

To facilitate accurate counting, BYU ITE will organize student volunteers to be on site to count entering and exiting vehicles, pedestrians, and bicyclists manually using count sheets and JAMAR count boards. The volunteers will also count the number of persons per vehicle to determine the vehicle occupancy and person trips generated. Trip generation will be counted between the hours of 6:00 a.m. to 7:00 p.m. on a Tuesday, Wednesday, and Thursday. Parking data will be counted by student volunteers for one day, once each hour for 13 consecutive hours. The BYU ITE team members will be flexible to change these hours based on the selection committee’s input. Data will not be collected during weeks that include holidays or periods of inclement weather, as travel patterns may be affected during those times. The property owner will be informed on the specific dates of data collection.

The summarized data will conform to the formats of the ITE “Trip Generation Data Form.” In addition to counts for automobiles, trucks, buses, pedestrians, and bicycles, BYU ITE will include pertinent information regarding the independent variables. The independent variables for ITE land use 254 are beds, occupied beds, 1,000 square feet, and employees (*ITE Trip Generation Manual, 10th Edition*). The draft and final reports will be provided according to the dates specified in the schedule outlined in Table 1.

Mentoring

Ryan Hales, P.E., PTOE, AICP and Jeremy Searle, P.E., PTOE have agreed to mentor BYU ITE by training those who will collect, reduce, and analyze the data, responding to questions or problems that arise, and reviewing the results and final report. Mr. Hales and Mr. Searle will submit the draft abstract of findings, response to comments from the evaluation committee, and the final abstract of findings to the Data Fund Collection Committee. BYU faculty members Dr. Grant Schultz, P.E., PTOE (BYU ITE Chapter Faculty Advisor) and Dr. Mitsuru Saito, P.E. will also aid BYU ITE during this data collection project.

Schedule

BYU ITE will complete this project by May 14, 2018, according to the schedule shown in Table 1. The actual dates of data collection will be contingent on possible inclement weather.

Table 1: Work Schedule

Date	Work to be Completed
December 29, 2017	Selection of Awarded Grants
February 13 – 15, 2018	Data Collection
March 2, 2018	Data Reduction and Analysis
March 16, 2018	Write Summary and Report
March 19, 2018	Submit Draft Report and Data
April 9, 2018	Committee Comments
April 23, 2018	Submit Final Report and Data
May 14, 2018	Upload Data to ITE Trip Gen Portal

Level of Effort

BYU ITE anticipates spending approximately 80 person-hours on this project. These hours will be allocated as summarized in Table 2. BYU ITE student members and other civil engineering students will be encouraged to participate in the data collection efforts. Those enrolled in the undergraduate seminar course will be given participation credit for their assistance. The data collection and reduction efforts will also allow students to be introduced to ITE and the transportation engineering profession.

Table 2: Projected Level of Effort

Task	Number of Students	Hours per Student	Total Hours
Training	10	1	10
Parking and Data Collection	10	4	40
Data Reduction and Analysis	5	3	15
Writing and Revising	3	5	15
Total			80

Project Management

Table 3 provides contact information for individuals that will provide project management services.

Table 3: Project Management Team

Student Coordinator	Primary Mentor	Faculty Members
Joshua E. Alpers, E.I.T. 413 South State Street #113 Provo, UT 84606 801-360-4157 joshua.alpers92@gmail.com	Ryan Hales, P.E., PTOE, AICP Jeremy Searle, P.E., PTOE Hales Engineering 1220 N 500 W, Ste. 202 Lehi, UT 84043 801-766-4343 ryan@halesengineering.com jeremy@halesengineering.com	Grant Schultz, Ph.D., P.E., PTOE Mitsuru Saito, Ph.D., P.E. 368 Clyde Building Brigham Young University Provo, UT 84602 801-422-6332 gschultz@byu.edu msaito@byu.edu

BYU ITE plans to use these funds to help existing and new student members participate in ITE activities at the Chapter, Section, and District levels. Specifically, we hope to foster participation at the Intermountain Section Meeting and send at least 4 students to the 2018 Western District Annual Meeting in Keystone, Colorado.

Agreement to Hold Harmless

The BYU ITE Student Chapter holds harmless and indemnifies the ITE Western District from any and all liability associated with the conduct and completion of this proposal, data collection, and associated activity.