JJR
landscape architecture
planning
urban design
civil engineering
environmental science

August 5, 2009

Mr. Eli Cooper, A.I.C.P.
Transportation Program Manager
City of Ann Arbor Public Services
100 N. Fifth Avenue
P.O. Box 8647
Ann Arbor, Michigan 48107-8647

Re: Fuller Road Intermodal Transit Station, Phase 1

Dear Mr. Cooper:

JJR, LLC (JJR) is most pleased to have this opportunity to present this proposal for professional services. We have been active in planning and designing transportation improvement projects for the City of Ann Arbor (City) and the University of Michigan for many years. These projects have included street/roadway designs, streetscapes, non-motorized facilities and transit improvements. We have also been active in planning intermodal transportation facilities for other communities, particularly the City of Dearborn which is on the same proposed commuter rail line as Ann Arbor.

JJR's extensive urban design experience combines the expertise of both internal and external professional disciplines needed for transportation projects, including: transportation planners, community planners, traffic engineers, roadway engineers, utility system engineers, landscape architects and environmental scientists. Our past projects demonstrate our culture of interdisciplinary practice throughout the conceptual, schematic, and final design phases, resulting in a balanced approach that meets program, technical, safety, and aesthetic requirements. For the investigation, planning and conceptual layout phases of this project, JJR has assembled a project team which includes the Carl Walker, Inc., URS and SME as Parking Structure Consultant, Traffic Consultant and Geotechnical Consultant, respectively.

The area that defines the project limits presents several issues that will require significant investigation. These are fully described in the Issue Analysis for the Ann Arbor Multi-Modal transit Center prepared by JJR for the City, dated March 10, 2009. This proposal of professional services recognizes these conditions and has addressed them in the Scope of Services. It is understood that the University of Michigan will assume all responsibility for the architecture and engineering of the FITS Phase 1 structure and site immediately after approval of the Concept Layout Plans and that these plans will address uses, access and functional layout but not architectural issues.

The enclosed JJR Approach and Scope of Work is truly a collaborative document input from the City of Ann Arbor, the University and all prime members of the JJR Team.

The attached project schedule, strongly guided by David Dykman, provides general timelines for the completion of the scope of services identified within this proposal. This schedule can be updated with more milestone dates following the project kick-off meeting with City and University leadership and staff.

The estimated professional services fee for the full attached Scope of Services is $835,471 (eight hundred thirty five thousand four hundred seventy one dollars) and is distributed within the primary tasks (see attachment).

Again, thank you for the opportunity to propose services for this exciting project. Please feel free to call either Bernie Fekete (669.2721) or me (669.2681) for any needed clarification or additional detail.

Sincerely,

Bernard J. Fekete, P.E.
Principal

Mark E. Lodewyk, P.E
Principal

cc: David Dykman, P.E., City of Ann Arbor Public Services

Enclosures: JJR Approach and Scope of Work
Project Organization Chart
Project Schedule
Estimated Professional Service Fees

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PROJECT APPROACH

The City of Ann Arbor (City) and the University of Michigan (UM) have agreed to work with JJR, LLC (JJR) to further define the Fuller Intermodal Transportation Station (FITS) concept and implement the first phase of FITS. Initial considerations were outlined in the Ann Arbor Multi-Modal Transit Center Issue Analysis completed March 10, 2009. The City and UM are about to enter into a Memorandum of Understanding (MOU) creating a working relationship for this facility and its use. Of paramount consideration at this time is the project timeline. It is understood by all parties that the Phase I Project will need to be ready to accommodate users during June 2012. To meet this date the process and timeline outlined in the proposal will assure proper public consideration and approval of the critical features in a very tight timeframe. It is understood by all interests the timeline will likely guide the process.

The City is the owner of the land and will continue in that capacity. The City and the UM have outlined a MOU for completing the work outlined above. The City, in collaboration with the UM, through this contract, will develop a Concept Plan for the FITS facility including a definition of a Phase 1 Project. Information about the site and the proposed footprint to accommodate the Phase 1 Project will be delivered to the UM on or before November 1, 2009. The Project Team will continue to develop the utility relocation and roadway plans needed to support the Phase I Project in support of the City. If deemed necessary, an Environmental Assessment (EA) of the FITS Conceptual Plan will also to be completed under this contract.

Collaboration is needed to assure successful completion of the anticipated tasks. It is understood the further definition and programming for the various elements of FITS will occur as the result of a two day stakeholder workshop, conducted early in the process and defined in Task 2. This approach will assure full participation of all interested stakeholder entities and interests in the development of the Conceptual Framework for the site and the structure. Through this participatory workshop sufficient information and consideration regarding the FITS Concept Plan(s) can be obtained. This will result in conceptual framework and development footprint based on a thorough and inclusive planning process that can be quickly agreed upon.

In later stages of project development, the coordination of design effort of the parties will continue to be critical. Relocation of on-site utilities and nearby roadway improvements are fundamental elements related to the Phase 1 Project. This scope outlines the opportunities for appropriate handoff of information and materials to the UM. It also outlines how work elements and efforts lead by the City will dovetail with the efforts to be completed by the UM.

For this effort JJR has established a design team (JJR Team) that includes URS Corporation (URS) as a transportation and traffic consultant, Carl Walker, Inc (CW) as a parking structure consultant, and Soils and Materials Engineers, Inc (SME) as a geotechnical and environmental consultant as well as other consultants with more limited project roles. The following scope of services was jointly prepared, reviewed and edited by the City, the UM and the JJR Team.

SCOPE OF SERVICES

The City has instructed the JJR Team to provide conceptual design services for the FITS and identification of a development footprint for a Phase 1 Project. The Phase 1 development footprint is to be provided to the UM to allow construction to be completed in June 2012. Phase 1 of the FITS consists of the construction of a 900 space parking deck, an amount of residual surface parking, a bicycle station and a bus stop with provisions for a more comprehensive FITS program in the future including an Amtrak and commuter rail platform and station; Ann Arbor Transit Authority (AATA) and UM bus transit center; vertical skywalk linking the FITS to the UM hospital; and other possible facility uses that will be identified. Specifically, the JJR Team will:

- Develop a comprehensive program and conceptual layout for the "core" FITS facility. The goal is to program a parking structure with space allocated for future development of transit or transit related facilities within the structure footprint.
- Perform preliminary site and infrastructure investigations for the development of the site.
- Provide a development footprint for the Phase 1 parking structure and site by November 1, 2009.
- Provide planning and design services for public utility adjustments and public road network modifications.
- Provide information/coordination for the City to turn conceptual design of the Phase 1 parking structure and associated site work over to the UM design team.
- Provide final design of the public utility and public road modifications including details for coordination with the work of the UM design team.

The JJR Team will kick-off the project by first meeting with the City to confirm the scope of the work, study tasks, general parameters, deliverables, schedule and review the cost proposal associated with this project. JJR will then prepare a memorandum that includes the following: 1) Summary of Project Team member responsibilities, including the City, the UM, the stakeholder group, and the JJR Team; 2) A detailed schedule with milestone dates; and, 3) A description of any changes required to the following scope of services. The memorandum will serve as a tool for management and execution of the project.

The JJR Team is hereby requesting that copies of all study area files and other available information in the City's possession be provided as soon as possible after award of contract, at least one week prior to the initiation meeting. All materials received will be properly indexed and catalogued for future reference. The JJR Team will adjust the data collection tasks, study parameters, and products based on the project initiation meeting and review of available data, to meet the City's intent for the project.

1.0 SITE ASSESSMENT, INVENTORY AND SURVEY

1.1 Existing Conditions Assessment and Meetings

The JJR Team will research, collect and review all available documents pertaining to the site, and conduct field inspections of all areas anticipated to be impacted by the project. An Existing Conditions Assessment report will be prepared at the conclusion of this task, including analysis of on-site circulation movements, and other site characteristics

identified. The report will expand on the March 10, 2009 Ann Arbor Multi-Modal Transit Center, Issue Analysis and will include written descriptions, sketches, photographs, treatment options and, recent aerial photography understood to be available from the City/Washtenaw County GIS program.

During this Task, JJR will:

- Host a kick-off meeting with City and UM staff to discuss investigation goals and tasks and to coordinate site access, schedule and control.
- Host one scheduled progress meetings with City staff and UM staff.

1.2 Transportation Study

FITS is a multi-modal transportation facility, thereby providing the need for the completion of an appropriate multi-modal transportation study. Through the stakeholder workshop process (see section 2.1), transportation system elements and demands will be captured. Interaction among and between the various modes will require careful consideration on internal FITS transportation systems, on-site transportation elements and linkage and implications to off-site transportation systems and services. These considerations include vehicle traffic, pick-up/drop-off traffic, AATA and UM bus transit routes, regional commuter, intercity passenger and potential high-speed rail service, non-motorized transportation facilities including the Border-to-Border Trail (B2B) and proposed skywalks, and a potential future signature transit system that may serve this site.

Of keen importance is the need to assure that access to and egress from the site by all modes is well understood for both the ultimate build-out of FITS as well as for the Phase 1 project components. The transportation study will outline the uses and implications of both a short-term and long-term timeframe with anticipated transportation implications understood for the site and the surrounding area. Consideration of proposed development in and around the site is a fundamental element of the success of the facility. FITS provides linkages to a growing UM medical complex, sits between several key UM campuses and will be a primary access to the City's evolving downtown and Lowertown redevelopment areas. Additionally, FITS will have an impact on the UM heliport located along East Medical Drive, and any adverse impacts and potential opportunities need to be considered and documented.

The transportation study to be performed by URS will address the incremental impact of Phase 1 of the FITS on multi-modal travel conditions, and the implications of the future FITS facility on those systems. The transportation study will include the potential intersection improvements under consideration at the Fuller Road/East Medical Center Drive/Maiden Lane intersection, which was developed by URS as part of services provided to the UM, and will also include the possibility of a modern roundabout based on the study performed by Orchard, Hiltz & McCliment, Inc. (OHM).

<u>Transportation Data</u>
Peak period vehicular and non-motorized data previously collected near the project area in 2009 as part of other traffic studies will be used as a basis of the analysis:

- Fuller Road at East Medical Center Drive/Maiden Lane
- Broadway Street/Plymouth Road at Maiden Lane

- Huron Street at Glen Avenue

Additional peak period data will be collected as part of this study at the existing driveways and the median crossover that service the M71 parking lot as well as UM transit and AATA Transit routes, to determine the amount of traffic generated by the existing 249-space parking lot. This data will be collected between 6:30 AM - 9:00 AM and 3:30 PM – 6:00 PM.

Additional peak period turning movement data will be collected at the following intersections on a typical weekday (7:00 AM – 9:00 AM and 4:00 PM – 6:00 PM):

- Fuller Road at Bonisteel Boulevard
- Fuller Road/Glen Avenue at Fuller Street
- Main Street at Depot Street
- Glen Avenue at Ann Street
- Glen Avenue at Catherine Street

Average Daily Traffic (ADT) and transit ridership will be collected during a typical week to establish the daily and hourly variations of traffic. The ADT information will be determined using tube counters and will be collected at two locations on Fuller Road, one location on Maiden Lane and one location on Fuller Street. All traffic data will be collected when the UM has returned to the semester schedule in the fall (September 2009).

Transit ridership information will be provided by the University of Michigan Parking and Transportation Services (PTS) and the AATA.

Pedestrian and bicycle data will be collected along Fuller Road and East Medical Center Drive during peak periods of activity on a weekday, including users of the B2B trail.

AMTRAK will be contacted to capture current rail ridership statistics. This data collection will be coordinated with the Ann Arbor Connector Feasibility Study consultant team to assure efficiency and effectiveness in evaluation, as well as a common base data set.

Traffic Projections

The future traffic and transportation conditions for the Phase 1 Project and FITS Concept horizon year(s) will be developed based on information from the WATS model and the existing traffic data. Other planned developments will be included as appropriate, as mutually agreed upon with the City and the UM. The City will be asked to comment on the methodology for the opening year (2012) and horizon year traffic projections. The horizon year will be mutually agreed upon with the City and the UM.

The future trip generation and trip distribution for the Phase 1 Project parking deck will be based on the traffic characteristics determined from current travel patterns defined by the WATS regional model and adjusted, if necessary, to reflect the existing parking lot (M71) and the traffic counts performed at the intersections within the study area.

For the horizon year analysis, the amount of pick-up/ drop-off vehicle activity will be estimated based on a wide enough range to assure the calculations are sensitive to a variety of potential travel patterns. Previous pick-up/drop-off data collected near the area,

the estimated ridership of the rail passenger facility and stakeholder input from the workshops will be used as input parameters. The pick-up/drop-off activity may be represented by private automobiles and/or taxis.

Transit and Non-Motorized Projections

For Phase 1, the number of buses (including University of Michigan Health Systems shuttles and line buses) that may use the Intermodal Station will be estimated based on input from the AATA and UM PTS staff. For the FITS horizon year, a similar approach is needed for bus transportation, signature transit service, commuter, intercity and high-speed rail services. Ridership projections provided by the rail studies will be utilized to estimate the number of users that interface with the FITS during peak travel periods. If a rail study is not available at the time of the analysis, then a placeholder estimate will be included in the projections.

Pedestrian and bicycle data collection and information from stakeholder workshops will be used to define the needs for non-motorized users. Pedestrian travel to and from and by the site as well as on-site pedestrian demands between the modal options will be estimated, based on the parking and transit estimates, and information provided by other rail studies available at the time of the analysis. Of particular importance is consideration of pedestrian access during interim and horizon analysis periods. Special attention will be granted to the timeframe between introduction of the Phase 1 facility, without skywalks, and ultimate build-out.

Traffic Capacity Analysis

The study area for the transportation analysis will include the intersections listed in the Traffic Data section, including the following roadway segments:

- Glen Avenue between Huron Street and Fuller Street
- Fuller Road between Fuller Street and Bonisteel Boulevard
- Fuller Street/Depot Street between Glen Avenue/Fuller Road and Main Street
- Maiden Lane between Fuller Road and Broadway Street/Plymouth Road

The transportation and intersection capacity analysis will be conducted for six scenarios:

- Existing (2009)
- No-build opening year (2012)
- Opening year with Phase 1 facility (2012)
- No-build horizon year
- Horizon year with Phase 1 facility
- Horizon year with full build-out

Two alternatives will be evaluated for the Fuller Road/East Medical Center Drive/Maiden Lane intersection: traffic signal control and multi-lane roundabout. It is recognized that pedestrian safety for all users is a critical issue regarding roundabout design. Alternative pedestrian access alternatives including mid block crossings will be evaluated for enhancing pedestrian access and safety.

The morning and afternoon peak hour level of service (LOS), vehicle delay, and vehicle queue results will be provided for the intersections listed in the Traffic Data section and will be presented in tables that compare the scenarios. For the signalized intersections, the

methodology of the Highway Capacity Manual (HCM) will be used and the traffic signal network will be modeled using Synchro and Simtraffic software. For the roundabout alternative at the Fuller Road/East Medical Center Drive/Maiden Lane intersection, RODEL software will be used to evaluate the capacity and resulting LOS.

In urbanized areas, LOS D is generally considered acceptable for future year conditions. The intersections that do not meet LOS D will be examined for physical and/or operational improvements to provide LOS D results.

The City will provide the existing traffic signal timings for the signalized intersections included in the study area.

Transit and Non-Motorized Analysis

Transit capacity analysis will be conducted to assure the transit system including bus and rail platform, waiting areas and the like are sized and located in a manner to assure safe and convenient access for travelers. Given the primary purpose of an intermodal station is to assure safe and efficient movement among and between modes, transit vehicle and priority access elements will explored and recommendations provided to the design process.

Given the multiple elements of a bicycle station (i.e., bike storage, bike rental, bike repair, lockers and showers) a focus will be to work with the UM, the City and Washtenaw County Parks Departments and other stakeholders to develop the requirements of such a facility. These requirements will be discussed at the stakeholder meeting(s).

UM Heliport Evaluation

The FITS may impact the flight path associated with the existing UM heliport, which is located adjacent to East Medical Center Drive. The tasks that may be included in this project relative to impacts to the flight path includes interviewing pilots, reviewing the approach surfaces, and filing Federal Aviation Administration (FAA) forms 7460/7480, if necessary. The task does not include completing a waiver form or filing a waiver, if a waiver is found to be necessary.

Report

The report will include a description of the existing traffic conditions, figures with the traffic data associated with the various scenarios, tables with the intersection metrics for the various scenarios, alternatives for mitigating adverse traffic impacts, and recommendations. The relevant sections of the transportation study will be included in the EA as described in Task 3.

The report will include an evaluation of a roundabout concept at the Fuller Road/East Medical Center Drive/Maiden Lane intersection, which is primarily intended to clarify if the roundabout alternative is viable with respect to the three bridges that surround the intersection. If viable, a roundabout concept will be developed; however, the final roundabout geometrics would not be developed until later preliminary and final engineering phases. The roundabout evaluation will include an assessment of separating non-motorized transportation demand from vehicular demands. Additionally, given the UM

Hospital Emergency Room access is near this intersection, considerations with respect to emergency vehicle operations through roundabouts will also be identified.

Other Considerations

Other aspects of the traffic study scope performed by URS will include coordination (review and comment) on the following issues developed by other members of the design team:

- Number of driveways
- Driveway location and configuration
- Parking deck circulation
- Surface parking lot circulation
- Non-motorized path (relocated)
- Bus pick-up/drop-off area configuration
- Bicycle station
- Pedestrian accommodations
- Mid-block crossings
- Need for separated bicycle and pedestrian elements

1.3 Survey

JJR anticipates providing topographic services associated with the parcel of land located in the City of Ann Arbor, more commonly referred to as Fuller Park. This parcel of land resides in the North 1/2 of Section 28, T2S, R6E, City of Ann Arbor, bounded on the North and West by Fuller Road, on the South by the Norfolk Southern Railroad and on the East by the Huron River. The existing improved parking lot along with connectivity to adjacent roadways will be the primary interest for this effort, excluding the easterly portion as currently utilized as open space and soccer fields, except as necessary for the potential sanitary sewer relocation, and the area west of the overhead East Medical Center bridge. In addition, these services will include collecting topographic features and the existing horizontal and vertical alignments along Fuller Road and East Medical Center Drive/Maiden Lane. The limits of this work include the right-of way of Fuller Road fronting the project parcel and the Maiden Lane/East Medical Center Drive intersection bounded on the west by the easterly end of the Fuller Road bridge over the railroad and to the east by the westerly end of the Fuller Road bridge over the Huron River. Survey limits also include the rights-of-way of East Medical Center Drive from Fuller Road to the northerly end of the bridge over the railroad, and Maiden Lane to the southerly end of the bridge over the Huron River. The total parcel area associated with this project will include approximately 20.0 acres. This work will expand upon work completed in 2004 by Washtenaw Engineering Company for the UM as part of an ALTA survey done on the project site, and topographic surveys conducted by URS and OHM, Inc. in conjunction with work performed at the Fuller Road/East Medical Drive/Maiden Lane intersection. The UM and City will direct that any/all electronic survey data available from previous efforts be released to JJR for use as needed on the project.

Survey work within the right-of-way of the railroad line and roadways does require specific safety precautions. The JJR Team will work with the City to obtain all necessary permits or approvals to work within such right-of-ways. The following services are included in our initial assessment of your project needs.

Topographic, Horizontal and Vertical Alignment Survey Services

JJR will complete a topographic, horizontal and vertical alignment survey of the project site to include the following services associated with providing a topographic map of existing conditions.

Mass points and break lines will be collected at sufficient interval and with regard to changes in terrain to illustrate surface drainage and establish a 1-foot contour interval. JJR will collect data in a linear manner, allowing horizontal accuracy in the alignment, supplemented with the collection of natural and artificial features associated with this site. Spot elevations will be represented at critical points and at a reasonable interval to supplement contour lines. The spot elevations illustrated in the plan view deliverable only represent a portion of the project points, due to drawing scale limitations. All project points will be utilized in the DTM surface model and assessment of surface drainage.

JJR will determine the existing horizontal and vertical alignments for Fuller Road, East Medical Center Drive and Maiden Lane adjacent to the project site and within the limits described. The City will provide any know information from previous surveys, plans and available records to assist with this effort.

The following linear plan features will be collected as part of this mapping effort: buildings, roads, railroads, water and drainage features, bridges, culverts, fences, guardrails, driveways, parking lots, poles, sidewalks, walls, manholes, catch basins, fire hydrants, and other visible surface utilities. Building elevations will be collected on adjacent structures bordering this project site.

Site utilities will be located at their surface feature, flow line measurements recorded, and connectivity estimated through review of plan information. JJR will obtain copies of gas, electric, sanitary, steam, storm, telecommunications and water plans, from local municipalities and public utility agencies, for estimating connectivity (The City will provide these drawings of the City's public utilities). Inventories including pipe sizes, invert elevations and pipe materials will be collected for all sanitary and storm sewers within the survey boundary limits.

The trees located in the project area will be delineated and identified, but not tagged, with dense wooded areas along the rail road corridor outlined and not individually identified. Our goal is to identify only trees critical in the design area, with perimeter trees that will remain undisturbed to be outlined as wooded areas.

The connectivity of overhead utilities will be illustrated as they appear in the field, with no effort made to delineate the type, restrictions or clearances of overhead lines.

If additional areas need to be surveyed, the JJR Team will obtain approval from the City, as an additional service prior to initiating such work. Similarly, the JJR Team will limit inspection work to the areas necessary for the performance of such inspections and will not interfere with the operation of a facility without first obtaining specific approval from an authorized representative of the facility and the City.

1.4 Geotechnical Study

The purpose of the geotechnical investigation is to determine and evaluate subsurface conditions for the selected site and to assess building foundation requirements, develop a potential sanitary sewer relocation design, and perform pavement structure design. The investigation will be performed by SME.

Borings

The soil evaluation will consist of five test borings within the footprint of the proposed parking deck as identified on the preliminary conceptual plan. SME will stake the locations of the borings and JJR's surveyor will locate the borings on the site plan. The field exploration program will involve the following:

- Three borings will extend 50-feet below the ground surface and the remaining two borings will extend 100-feet below the ground surface for a total of 350-lineal feet of drilling.
- In addition, up to 20 additional borings will be taken to a depth of 5-feet below the ground/pavement surface within the Fuller Road/East Medical Center/Maiden Lane intersection approaches and along Fuller Road and on the project site to determine the existing pavement/soil conditions and to design the various pavements required by the project. Since some of these borings will be performed along existing roads, SME has budgeted for one day of a traffic control sign and two flagmen.
- Three borings to a depth of 40-feet below the existing ground surface will be taken along the proposed sanitary sewer alignment if it is determined this facility needs to be relocated.

Split-spoon soil samples will be obtained in each boring at approximately 2.5-foot intervals in the upper 10-feet (or through any fill encountered) and at 5-foot intervals below a depth of 10-feet. Groundwater levels will be recorded in the borings during and immediately after drilling. Liners and thin-wall Shelby tube samples will be obtained on cohesive soils to perform additional laboratory tests such as in-situ density, Atterberg limits and unconfined compressive strength. These samples will be obtained from the borings performed within the parking deck and sewer areas. For the purposes of this proposal, a combined total of 48 liner samples and Shelby tubes have been budgeted. Additional borings, as required for the building foundation design, will be obtained by the consultant working for UM to design the parking deck.

Perform USACE Dynamic Cone Penetrometer (DCP) tests at the pavement boring locations to evaluate the consistency of the upper subgrade soils and estimate the California Bearing Ratio (CBR) of the subgrade. CBR is an index commonly used in pavement design that gives an indication of subgrade support characteristics. The Corps of Engineers have developed relationships to estimate the CBR value from the results of the DCP test.

After completion of drilling, the borings will be backfilled with auger cuttings or grouted, as needed.

Based on SME's experience, alternating layers of sand and clay may be encountered in borings and confined aquifers may be encountered. After completion of drilling, borings

where confined aquifer(s) are encountered will be backfilled with cement/bentonite slurry. Otherwise, the boreholes will be backfilled with auger cuttings.

Testing to evaluate subsurface conditions and to assess building foundations requirements, site preparation, and pavements will also be performed. SME's field representative will confirm the type of sampling required, classify subsoil strata, perform field tests, prepare a field log for each test boring and revise drilling procedures as necessary to adequately define subsurface conditions at the site.

Laboratory Testing

SME will also perform laboratory testing on recovered soil samples to determine the physical characteristics of the subsoil's encountered. The laboratory testing will consist of visual soil classification, determining the moisture content and as many as 48 density tests of selected samples together with as many as five Atterberg limits tests and 48 unconfined compressive strength tests on representative cohesive soils and partial sieve analysis on as many as five representative samples of granular soils recovered from the borings.

Geotechnical Report

An engineering report will be prepared to summarize findings, evaluations, conclusions, and recommendations for the following items:

- A boring location diagram.
- Logs prepared for each boring that will include a description of the soils encountered and the results of the field and laboratory tests.
- A description of the site conditions and evaluation procedures.
- A description of soil and groundwater conditions encountered in the borings.
- A description of the field and laboratory testing programs and an interpretive analysis of the results.
- Recommendation for seismic Site Class in accordance with the 2006 Michigan Building Code (MBC), based on the borings and SME's experience with local geologic condition.
- Preliminary site preparation and earthwork recommendations, including general site subgrade preparation, compaction and materials requirements for engineered fill, and the evaluation of the suitability of on-site soils for reuse as engineered fill.
- Preliminary recommendations for subgrade preparation for slabs-on-grade.
- Preliminary recommendations regarding the design of foundations to support the parking deck, including a range in allowable soil bearing pressure and skin friction parameters for vertical compression and uplift loads; estimated settlement; depth to suitable bearing soil; parameters for lateral capacity.
- Pavement design including subgrade preparation and recommendations for light-duty (parking areas) and heavy-duty (service drive) asphalt concrete. Pavement design will require traffic count information, topographical survey and grading plans to complete, otherwise, the recommendations provided will be preliminary until the final site plan/grading design can be reviewed.
- Preliminary comments about construction considerations related to the geotechnical conditions disclosed by the borings.

Pressuremeter Tests

Structural loads for this project are relatively high and large foundations will likely be necessary to support the parking deck. Using conventional analytical methods to develop soil parameters for design may result in relatively low soil bearing pressures for shallow spread footings or deep foundations. This could result in higher construction costs to the City. Utilizing a higher design soil bearing pressure for foundations can be advantageous for both construction and economy by reducing overall foundation sizes. Therefore, SME will perform pressure-meter tests at the two deep boring locations within the footprint of the parking deck. The pressuremeter test provides a direct measure of the soil modulus, rather than estimating it through conventional means from the boring data. The pressuremeter provides a more accurate measure of the soil resistance, which, in turn, can increase design soil bearing capacities as much as about 1.5 to 3 times (or more depending on soil conditions) greater than the soil resistance measured directly from conventional boring information (i.e. Standard Penetration Test resistances). On this basis, we have included two days of pressuremeter testing that will be performed to further evaluate subgrade soils within the proposed parking deck area.

Phase 1 Environmental Site Assessment

A Phase 1 Environmental Site Assessment (ESA) will be conducted in general accordance with the scope and limitations of the American Society for Testing and Materials (ASTM) Practice E 1527 entitled “Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process.” The objective of the Phase 1 ESA is to provide an independent, professional opinion regarding recognized environmental conditions that may be associated with the site. This effort will further develop the site ESA prepared by Clayton Group Services, Inc. (June 2004) as it relates to Phase I and the future expansion of the FITS facilities. A written report will be prepared documenting compiled information along with noted evidence of recognized conditions and recommendations for additional work that may be needed (such as a Phase II).

City/UM Assistance

The City will provide or obtain right-of-entry for SME to conduct the evaluation and the UM and/or the City will provide assistance to SME prior to arrival on site to perform the field exploration. This assistance will include blocking off areas within the existing parking lot to allow our drill rig to access the boring locations.

Task 1 Deliverables

- Existing Conditions Assessment Report
- Traffic Study Report
- Topographic, Boundary, and Horizontal and Vertical Survey Maps
- Geotechnical Investigation Report
- Phase 1 ESA
- Meeting Agendas and Meeting Minutes

2.0 PROJECT DEFINITION AND CONCEPT PLANNING

2.1 Programming and Initial Concept Plan

To formulate a project description, the JJR Team will facilitate a programming document responding to major considerations and design criteria. The primary focus of this Programming Workshop is to establish a consensus on the project planning principals, goals; identify the activities to be accommodated as part of FITS and in the Phase I Project building and highlight the future requirements or considerations that should shape the concept planning effort.

This task will expand on the March 10, 2009 Ann Arbor Multi-Modal Transit Center Issue Analysis and will investigate the issues and test/confirm the ideas shown in the Analysis. The purpose of the Issue Analysis was to identify important issues related to a future inter-modal transit station/parking deck on the Fuller Road site as the basis for determining whether to undertake a more detailed feasibility study and to provide a context for discussions with potential project partners.

This phase will establish the general scope, concept design, and scale and relationships of the FITS concept in its setting, and among the components of the project. The primary objective is to arrive, at clearly defined, feasible Site and Structural Conceptual Designs that meet the City's goals and approval. Such concepts are to be presented in a form that achieves the City's understanding and acceptance. The secondary objectives are to clarify the project program, explore promising alternative design solutions and provide a basis for analyzing the cost of the project.

It is understood the Issues Analysis illustrated a possible concept; provided an 'order-of-magnitude' opinion of probable construction cost and outlined a "critical path" schedule for possible project implementation, it was a not a comprehensive, detailed feasibility study. The Issues Analysis was based on readily available information provided by City staff and did not provide a detailed investigation of alternative locations for an inter-modal facility, site conditions, program requirements or funding strategies. This programming study workshop is intended to expand on the Issues Analysis to determine the most advantageous building size and location, addressing and accommodating future major functional requirements.

A programming study workshop, including follow-up interviews with principal Stakeholders and the City, if needed, will be used to determine the FITS concept plans with space allocations to determine the optimal program elements and performance requirements for the building will be developed. This information will be compiled into the Programming Document. The final document will include identification, analysis, recommendation and justification of the proposed project program.

<u>Programming Study Workshop</u>
The primary objective of the workshop is to define how FITS will serve the Community and UM. It will identify and conceptually outline the activities anticipated to occur within the new facility. It will also facilitate an understanding of both site and structure concepts and their ability to meet planned objectives. Issues that will be reviewed during the workshop

include the following:

- Design objectives, limitations and criteria
- Development of initial approximate gross facilities areas and space requirements
- Space relations
- Number of functional responsibilities/personnel
- Flexibility and expandability
- Special equipment and systems
- Security criteria
- Operations Procedures

The Programming Study Workshop is tentatively scheduled for August 26 and 27. The workshop agenda will include four major elements: Background, Development of Alternatives, Consideration of Alternatives and Development of the Preferred FITS Concept Plan. Workshop participants will include, at a minimum, the City, the UM, SEMCOG/MDOT, Amtrak, among others.

Background: Space Allocation

Building off the Issues Analysis, the FITS program requirements for both the site considerations and the Phase I Project structure will be outlined for the primary uses. Additionally, a set of preliminary project goals and planning principals will be developed and used to guide the effort. The elements identified in the Issues Analysis as well as the concept of a bike station and links to a potential future signature transit service will be considered for space needs to support those activities. Site layout and space allocations necessary for the anticipated facility users will be discussed among the JJR Team, stakeholders and City during the initial session of the workshop. The Issues Analysis' background information, Amtrak's design specifications and other existing background information and data will be compiled and circulated prior to the working session data.

In developing the conceptual plan the following evaluations will be performed:

- Site and building footprint, size and massing of the structure, probable pedestrian flow, accessibility, expandability, functional layouts, etc.
- Integration of the parking structure with the proposed future transit center uses and rail platform and related infrastructure.
- Design flexibility to accommodate future parking expansion and anticipated future facility and service expansion.
- Alternative parking structure floor plan layouts and circulation systems, advantages and disadvantages of each, and recommended the layout best meeting the project criteria to be developed into the conceptual plan.

Development of Alternatives Study Document

Using information gathered from the Background Workshop, including goals and principals, data and information about the various elements and transportation needs, a series of alternatives will be developed for both the site and structure concepts. Concepts will be developed through the facilitated session and designed to meet stakeholder, core facility and community requirements. This information shall be documented in sketches and notes. Comments and observations will be collected during the process for use in the subsequent stages of the workshop process.

The parking structure design development during the Conceptual Design Phase will include:

- Review of building program and budget
- Conceptual building and site plans
- Conceptual selection of building structural systems and materials
- Development of approximate dimensions, areas and volumes
- A schedule and probable timing of Phase 1 and the full "build-out" of the multi-modal facility

Consideration of the Alternatives

The Project Team will work with the alternatives developed and cite the advantages and disadvantages of the considerations to the stakeholders in this phase of the workshop. This information will be presented to project stakeholders in an interactive session. The session will include bringing forward the experts' considerations and be subject to feedback from members. The concepts that obtain the highest level of consensus will be considered for inclusion in the development of the preferred site and structure conceptual plans.

Definition of the Preferred FITS Concept and Phase I Plans

The Project Team will synthesize the information and conclusions from the Consideration of Alternatives phase and prepare the Initial Conceptual Plan for FITS. The Structure Concept Plan will be the result of a more detailed examination of issues and represented on a finer scale at this session. Both site and structure conceptual plans will be tested for feasibility of implementation in the time allotted including consideration of both on-site and off-site issues. Potential obstacles will be identified and alternative solutions considered. Primary features of the initial conceptual plan will be produced and a series of key items outlined for use in communications beyond the workshop.

The resulting conceptual plans will be included as the product of the programming study workshop and be used to define program level cost estimates for the facility.

2.2 Final Conceptual Design Documents

Conceptual parking structure and site design will begin prior to the Program Workshop and will be completed after the workshop, survey, geotechnical investigation and transportation study are completed and the results/impacts have been assessed. The conceptual design documents will be as follows:

Structure Conceptual Design

At completion, the Conceptual Floor Plan for the Phase 1 parking deck will be developed at a scale of 1" = 40'. It will be derived from the workshop process, the information and requirements outlined from the participants and the Issues Analysis for the programming document. The Conceptual Floor Plan alternatives will define the assigned space sizes and the preliminary outline of the proposed facility including the relationships between the defined spaces. Concurrence from stakeholders and approval from the City will be obtained at the conclusion of the workshop. The resulting documentation will be turned over to UM and its design team for the schematic design/design development/preliminary engineering/construction document phases. No architectural design work is included in

this phase but structural systems will be evaluated as follows:

- Cast-in-Place vs. Precast concrete system features, and selection of the structural system.
- Volume change considerations.
- Value analysis of durability systems, waterproofing, and joint sealants.
- Consideration of anticipated first costs and future costs associated with the structural system over the expected service life.
- Consideration of user comfort issues such as sight lines, lighting distribution, etc.
- Develop preliminary structural framing to assist in preparing schematic construction cost estimate.

Site Conceptual Design

At the completion of the Site Conceptual Design level, proposed on-site features including access drives, utility relocations and building leads, areas for potential landscape enhancements, both pedestrian and vehicular circulation and railroad modifications will be explored. The site features will be developed and presented at a scale of 1" = 40', coordinated with the conceptual Phase I Project parking deck layout, and will include:

- Relationship of the structure to peripheral street, transit, railroad, non-motorized systems, proposed signature transit, adjacent development and anticipated user destination.
- Relationship of the project to anticipated future facility and service expansion.
- Location and size of entrances/exits.
- Location of stair/elevator towers and pedestrian access.
- Location of rail infrastructure components.
- Future expansion of the facility, including transit expansion and future signature transit elements.
- Any on-site surface parking space layout.
- Temporary surface parking needed until future development plans are initiated.

This phase will also include consideration of site features that will, or may, have a critical impact on site development and proposed resolutions of these issues needed to continue design of facilities. These include the DTE transmission line and easement and the City sanitary sewer line that transverse the site.

Roadway Conceptual Design

At the completion of the Roadway Conceptual Design level, proposed features of roadway and intersection modifications will be developed and presented at a scale of 1" = 100', coordinated with the conceptual Phase I Project parking deck layout. No roadway profile or utility work is included in this phase.

During Task 2.2, JJR will host two scheduled progress meetings with City staff and UM staff.

2.3 Presentation and Report

A presentation will be conducted at an Ann Arbor City Council working session to present the concept design focusing on issues related to FITS and the building itself and how the building relates to the traffic patterns, rail line, other existing facilities, proposed signature transit features, landscape features, and construction phasing issues. A summary document will be prepared to demonstrate how the concept(s) meets the project goals, budget and addresses the key issues outlined in the Programming Study Document. Additionally, JJR will compile all materials used for the Programming and Conceptual Plan phase and deliver copies to the City and UM. As needed, JJR will then attend and support the presentation of City staff to the an Ann Arbor City Council meeting to gain any approvals needed for the project.

Task 2 Deliverables

- Programming Study.
- Conceptual Site Plan including structure footprint, rail platform footprint, Signature Transit system, curb cuts, driveways, pedestrian paths/walks, skyway, and green spaces.
- Conceptual Building Plans, including first floor layout for future rail station, transit station, bike station, supporting spaces and vertical circulation.
- Conceptual Improvements Plan for Fuller Road, and the Fuller Road/Maiden Lane/East Medical Drive intersection and the Fuller Road corridor
- Conceptual Improvements Plan for on-site utility infrastructure including wastewater and utility infrastructure that serves the community rather than the site, itself.
- Copies of Final Documents in CAD, Word, Excel and other working formats.
- Complied copies of materials used for programming and conceptual planning.

3.0 ENVIRONMENTAL REQUIREMENTS AND INVESTIGATIONS

The Fuller Intermodal Transit Station is expected to require Federal funding, at least in part, for implementation. However, it is understood that the associated parking deck, to be funded separately, will be developed such that clearance under the National Environmental Policy Act (NEPA) will not be required. The primary task will be to coordinate with appropriate City and State officials to develop a strategy for NEPA clearance of the roadway, non-motorized, railroad and transit station elements that may utilize Federal funding.

3.1 Determination of Assessment Requirements

<u>Agency Coordination Meeting</u>
JJR will coordinate a meeting with appropriate City and State officials to evaluate the future commuter rail/transit station, explore funding scenarios and develop a strategy for environmental clearance. We will discuss the appropriate level of assessment for the clearance (assumed to be an EA), strategy and lines of communication for coordination at the Federal level and required steps for review and approval of the project, including need for identification on the STIP as well as other transportation programming requirements. Based on the assumption that an EA is appropriate for the future commuter rail/transit

station, JJR will provide the services described below. This scope assumes that a single EA document will be prepared that would include all elements of the project agreed to in the agency coordination meeting.

3.2 Environmental Assessment

Early Coordination
Coordination will occur initially in the form of specific requests for information from the Michigan Natural Features Inventory for state-list threatened and endangered (T&E) species records and the U.S. Fish and Wildlife Service will be contacted to determine the potential for federally-listed T&E species in the vicinity of the proposed project. Other agencies to be contacted include the Michigan State Historic Preservation Office and the Michigan Department of Environmental Quality (MDEQ). Initial contacts will be in a letter form and will contain sufficient information about the proposed project such that agencies can begin to assist in determining the significance of potential project issues.

Data Collection
Data collection will include information associated with traffic and circulation patterns (from the traffic study), the potential for existing site contamination (data base search only at this time), a review of potential archaeological and historic resources, subsurface and natural environment investigations, presence of existing or planned utilities, socioeconomic data (population projections, major employers, and tourism generators), noise and air quality data and aesthetic quality and viewshed characteristics. Existing planning documents will be reviewed, and City staff will be interviewed to identify short-term and long-term land use issues.

All of the data collected will be evaluated with respect to the conceptual program for the project (e.g., approximate new building square footage and uses), and identified likely project-related issues.

At this stage, JJR will develop a clear, well-defined Purpose and Need statement for use by decision-makers and the public to balance the project against associated impacts. Only when the project Purpose and Need are reasonably defined can the project analysis required by NEPA be properly evaluated by the appropriate agencies. JJR will develop the project purpose and need addressing the following issues: 1) Improving parking conditions within the project area; 2) Improve traffic flow; 3) Improving pedestrian safety and non-motorized circulation; and, 4) Establishing the framework for implementation of a future intermodal transit facility.

Documentation
Obtaining a complete understanding of the site conditions and the site's relationship to surrounding and regional land uses and activities is an important aspect of determining possible consequences (or impacts) of the proposed development. Information collected under Task 3.1 and 3.2 will be summarized and included in the EA, as appropriate.

The heart of the EA is the analysis of environmental consequences during and after construction. The term "environmental" refers to both the natural and built environment. Analysis of right-of-way, zoning and land use, air quality, noise levels, traffic, social and economic effects, water resources and water quality, flood hazard potential, proposed aesthetics, viewshed, utilities and other facilities/services, and safety will be conducted in the EA process.

Other issues will also need to be addressed to meet regulatory requirements. For example, the JJR Team will document cultural resource impacts that are under the jurisdiction of Section 106 of the national Historic preservation Act. We will also determine whether U.S. Department of Transportation Section 4(f) resources are potentially affected, which include cultural resources and publicly owned recreational and wildlife refuge lands. Other regulatory concerns for federally funded projects include the issue of Environmental Justice. Documentation that no populations of minorities or low-income people will be disproportionately adversely affected by this project will be included in the EA. The issue of secondary and cumulative impacts of federally funded projects is a primary concern of regulatory agencies because past, present, and potential future actions have been shown to have inter-related consequences.

The analysis of environmental consequences must also consider possible mitigation measures that will be included in the project. It is important to note that the process of identifying and evaluating environmental consequences is not limited to only adverse impacts, but includes an analysis of beneficial impacts as well. The purpose of the EA is to provide decision-makers with sufficient information and analysis to determine whether the project is in the best interest of the public.

The EA will conform to guidelines of 23 CFR part 771 – Environmental Impact and Related Procedures, Federal Highway Administration and Federal Transit Administration, April 23, 2009.

Specific contents of the document will include the following four sections:

1. Need for and description of proposed action
2. Alternatives to the proposed action
3. Environmental Impacts
4. List of agencies and persons consulted
5. Appendices containing technical information

The JJR Team will share a draft Table of Contents for the document with the City, FTA, and Michigan Department of Transportation (MDOT) early in the process to ensure that all requirements are covered. JJR will prepare a draft of the EA based on the above noted tasks and items and will provide up to four copies for City and MDOT review. Revisions will be made, as needed, and a pre-published copy of the EA will be provided to City, MDOT and FTA for final approval. Final revisions will be made and 25 copies of the EA will be prepared and made available for public review.

JJR representatives will coordinate the Public Notice process and will coordinate a Public Hearing, should one be required, to complete the EA process. It is anticipated that the City will provide a suitable location for the Public Hearing. Assuming that all project issues

can be adequately addressed, a Finding of No Significant Impact (FONSI) will be requested as the final clearance document.

Task 3 Deliverables

- EA - four draft copies, five pre-publish copies, 25 final copies and electronic copy.
- Two agency coordination meetings and five team meetings.

4.0 PRELIMINARY DESIGN / ENGINEERING

After the conceptual design phase is complete, the JJR Team will immediately begin preliminary design of the Phase 1 FITS conceptual plans that remain the responsibility of the City and will coordinate with associated site work that is the responsibility of the UM design team.

4.1 Public Utility and Road Modifications

The approved conceptual plan for the Phase 1 FITS will identify the adjustment/relocation of any public utilities required to implement the project and modifications to the adjacent public road system necessary to maintain acceptable levels of service on the roadways after the project is completed and Phase 1 of the FITS is operating.

JJR will prepare preliminary engineering documents to define in detail the elements of public infrastructure that will be modified in the area of the project, as follows:

1. Driveway access to the FITS facility from Fuller Road, median modifications on Fuller Road to provide direct access to the site, and storm sewer modifications to address the roadway improvements. These preliminary drawings will be to a level of detail of approximately 50% construction documents (CD).

2. Public utility relocations on the proposed FITS site as needed to allow for construction of the FITS structure and associated site improvements. These sanitary sewer, water main or storm sewer relocation plans will be to a level of detail of approximately 50% CD.

3. Road intersection improvements for the Fuller Road/East Medical Center Drive/Maiden Lane intersection. It is anticipated that the improvements determined for the Fuller Road/East Medical Center Drive/Maiden Lane intersection will be constructed utilizing funds from a Federal/State Congestion Mitigation Air Quality (CMAQ) Grant. Utilization of such funds requires that this work be planned, designed, advertised and bid through the MDOT Local Agency Programs process. These improvements will be developed to a level of detail of approximately 50% CD for City review and then 80% CD for MDOT grade inspection review.

A typical drawings list includes:

- Cover sheets and general notes
- Typical road cross sections
- Construction maintenance of traffic plans
- Road plans and profiles

- Traffic signalization plans
- Signage and striping plans
- Storm sewer plan and profiles
- Sanitary sewer plan and profiles
- Watermain plan and profiles
- Soil erosion and sedimentation control plans
- Landscape plans
- Standard plans and special details

For the Fuller Road/East Medical Center Drive/Maiden Lane intersection, JJR has assumed a traditional signalized intersection or a roundabout similar to that previously envisioned in the OHM Study. JJR has not included any services that may be needed to describe, establish or secure additional road right-of-way. For street lighting, JJR has assumed light pole relocations may be needed, but no new fixtures or electric service is required.

For negotiations between the City and DTE pursuant of the relocation of overhead electric transmission lines, JJR will participate in meetings or on-site reviews. Should the City require other services, drawings or documents, JJR reserves the right to negotiate a scope change for this work.

At the completion of Preliminary Design/Engineering activities the JJR Team will render an Opinion of Probable Construction Cost for the public utilities/infrastructure aspects of the Phase 1 development.

4.2 Meetings and Deliverables

During Task 4, JJR will:

- Host up to six scheduled progress meeting with City staff.
- Organize and attend up to four meetings with individual City departments or other agencies as needed to coordinate activities and gain necessary approvals.
- Participate in the MDOT grade inspection for the Interchange project.

Task 4 Deliverables

- Preliminary engineering plans and cost opinion (50% CD) for public utility adjustments/relocations.
- Preliminary engineering plans and cost opinion (50% CD) for driveway access, including modifications to Fuller Road at drive locations.
- Preliminary engineering plans and cost opinion (50% CD) of proposed Fuller Road intersection improvements for review by the City.
- Grade Inspection (GI) package for Fuller Road intersection improvements (80% complete plans, specifications and opinion of probable construction costs) for submittal to MDOT.

5.0 FINAL DESIGN

5.1 Public Utility and Road Modifications

In the final design phase, JJR will continue the advancement of Construction Drawings into the final condition required for Construction Documents and will prepare Technical Specifications needed to supplement City or MDOT Standard Specifications as follows:

1. Driveway access to the FITS facility from Fuller Road, median modifications on Fuller Road to provide direct access to the site, and storm sewer modifications to address the roadway improvements will be combined into a single drawing set with public utility relocations on the proposed FITS site. These CDs will be prepared for bid and award by the City utilizing City documents and procedures. For sanitary sewer or watermain relocation, JJR will prepare a permit application and technical data to supplement the drawings for any required MDEQ sewer or water permits.
2. Road intersection improvement drawings for the Fuller Road/East Medical Center Drive/Maiden Lane intersection will be finalized for advertisement, bid and contract award by MDOT. As noted in the preliminary design scope of services for this intersection, JJR has assumed a traditional signalized intersection or a roundabout without the need for additional right-of-way. If additional right-of-way is required based on the conceptual plan phase, JJR reserves the right to negotiate a scope change for this work.

The typical drawing list would be similar to preliminary design and includes:

- Cover sheets and general notes
- Typical road cross sections
- Construction maintenance of traffic plans
- Road plans and profiles
- Traffic signalization plans
- Signage and striping plans
- Storm sewer plan and profiles
- Sanitary sewer plan and profiles
- Watermain plan and profiles
- Soil erosion and sedimentation control plans
- Landscape plans
- Standard plans and special details

Included in the final design will be reviews and meetings with the City and UM design team to coordinate the public utility/infrastructure work with the Phase 1 parking deck structure site work

5.2 Meetings and Deliverables

During Task 5, JJR will:

- Host up to six scheduled progress meeting with City staff.

- Organize and attend up to four meetings with city departments or other agencies as needed to coordinate activities and gain necessary approvals. This includes attendance of a GI Meeting with MDOT for the intersection improvements.

Task 5 Deliverables

- Final public utility relocation plans for submittal to MDEQ.
- Final public utilities/infrastructure and Fuller Road site access construction improvements bid package for advertising and bidding by the City of Ann Arbor.
- Bid package for Fuller Road/East Medical Center Drive/Maiden Lane intersection improvements (99% complete plans, specifications and opinion of probable construction costs) for submittal and review by MDOT.
- Final bid package corrections based MDOT review.

CITY OF ANN ARBOR

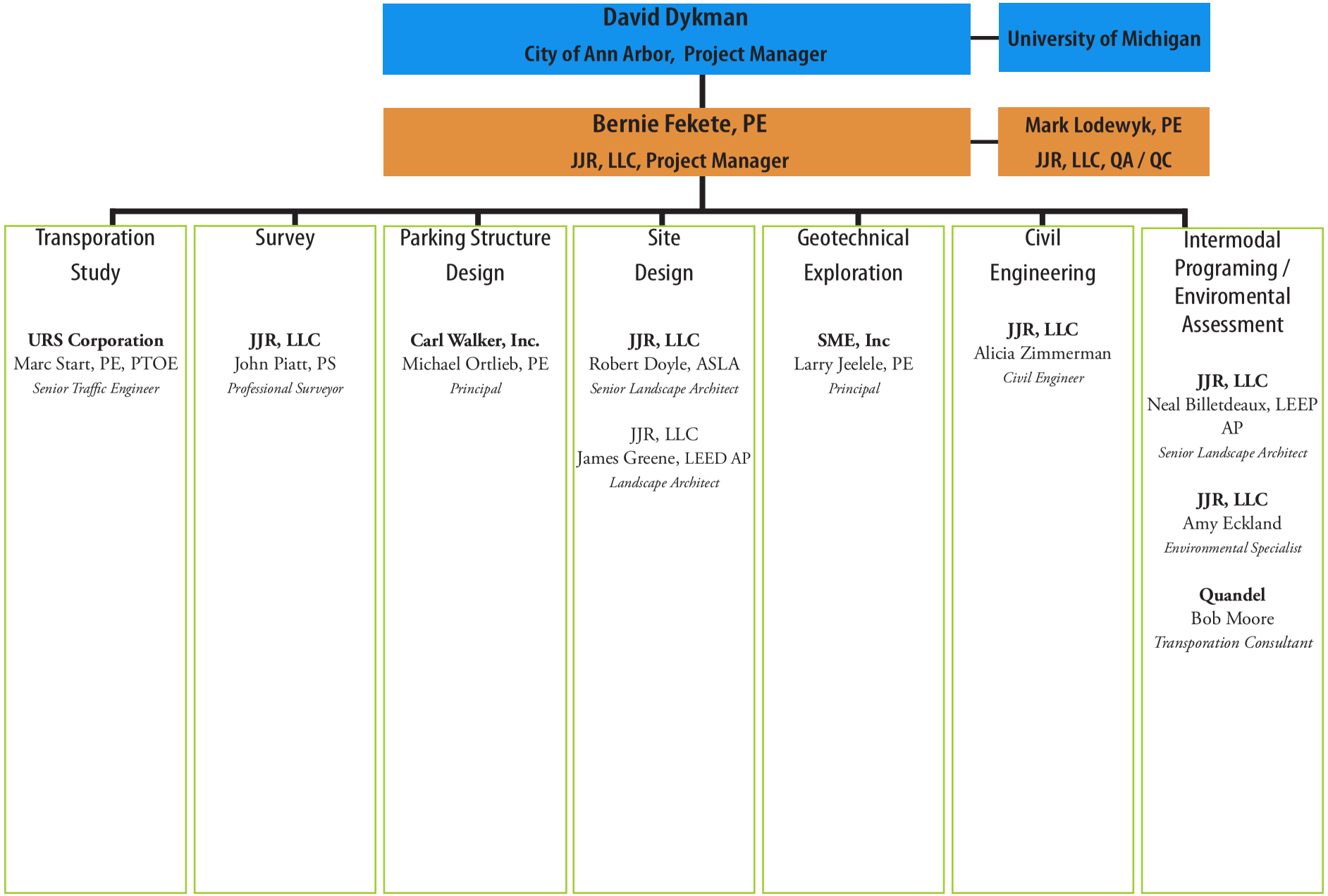
FULLER INTERMODAL TRANSPORTATION STATION

PROJECT TARGET DATE SCHEDULE

Activity	Start	Complete
Council Approval (MOU and JJR Proposal)	**08/06/09**	**08/06/09**
Receive all Existing Street and Utility Plans from City		08/11/09
Project Team Kick-Off Meeting (City, U of M and JJR)	**08/11/09**	**08/11/09**
Received all other Studies, Reports or Data from City		08/14/09
Site Investigation, Inventory and Survey	**810/2009**	**09/21/09**
Existing Condition Assessment and Analysis	08/10/09	08/28/09
Preliminary Transportation Study - Phase 1 Traffic Impacts only	08/10/09	09/21/09
Preliminary Transportation Study - Impacts to all Modes & Future Phases	09/21/09	10/21/09
Topographic/Horizontal/Vertical Survey	08/17/09	09/21/09
Geotechnical Investigation and Report	08/17/09	09/21/09
Environmental Site Assessment (FITS - Phase I)	08/17/09	09/21/09
Project Definition and Concept Planning	**08/19/09**	**10/19/09**
Program and Prelim Conceptual Plan Workshop	08/26/09	08/27/09
Complete Prelim Conceptual Plan	09/03/09	09/11/09
Prelim Conceptual Plan Review and Verification	09/14/09	09/21/09
Final Conceptual Plan	09/22/09	10/09/09
Final Conceptual Plan Review, Verification and Approval	10/09/09	10/19/09
Environmental Assessment	**08/14/09**	**08/30/10**
Determination of Assessment Requirements	08/17/09	09/18/09
Environmental Assessment (FITS - Future Phases)	09/21/09	08/30/10
Design Development and Preliminary Engineering (Public Utilities and Roads)	**09/22/09**	**12/17/10**
Public Utilities Relocation Design/Plan Development (50%)	09/22/09	11/23/09
Utilities Relocation Plan Review and Approval	11/24/09	12/07/09
Fuller Road Site Access Design/Plan Development (50%)	09/22/09	12/07/09
Site Access Plan Review and Approval	12/08/09	12/31/09
Intersection (Fuller/Medical/Maiden) Improvements Design/Plan Development (50%)	05/03/10	07/23/10
Intersection Improvements Design/Plan Development Review and Approval	07/26/10	08/09/10
Intersection Improvements Plans, Specs and Costs (MDOT GI Package - 80%)	08/10/10	10/29/10
Intersection Improvements MDOT GI Package Review and Approval	11/01/10	11/19/10
MDOT GI Meeting	12/17/10	12/17/10
Final Design and Engineering (Public Utilities and Roads)	**11/30/09**	**01/21/11**
Public Utilities Relocation MDEQ Plans (95%)	11/30/09	01/15/10
Utilities Relocation MDEQ Plan Review and Approval	01/18/10	01/26/10
Public Utilities Relocation MDEQ Permit(s)	01/27/10	04/16/10
Public Utilities Relocation and Fuller Road Site Access Final Plans, Specs & Costs	12/08/09	03/26/10
Utilities Relocation/Site Access Final Review and Approval	03/29/10	04/09/10
Utilities Relocation/Site Access Bid Package	04/12/10	04/16/10
Intersection (Fuller/E Medical/Maiden) Improvements Final Plans, Specs & Costs	12/18/10	01/03/11
Intersection Improvements Final Review and Approval	01/04/11	01/12/11
Intersection Improvements MDOT Final Bid Package	01/21/11	01/21/11
Construction	**4/19/10**	**10/31/11**
Bid and Award Utilties Relocation/Site Access Construction Contract	04/19/10	06/14/10
Utilities Relocation/Site Access Construction	07/05/10	10/31/11
MDOT Bid and Award Intersection Improvements Construction Contract	02/25/11	05/03/11
Intersection Improvements Construction	05/15/11	10/31/11

JJR

Ann Arbor Fuller Road Intermodal Transit Station, Phase 1
Team Organization



CITY OF ANN ARBOR

FULLER INTERMODAL TRANSPORTATION STATION

ESTIMATED PROFESSIONAL SERVICE FEES

Item	due date	JJR		Subconsultants					sum of tasks
		labor	expenses	CW	URS	SME	CCRG	others	
1 Site Investigation, Inventory & Survey									
1.1 Existing Conditions Assessment	**8/28/09**	$17,400	$696	$6,000					$24,096
1.2 Transportation Study	**10/21/09**	$6,200	$248		$96,600			$5,000	$108,048
1.3 Topographic Survey	**9/21/09**	$24,200	$968						$25,168
1.4 Geotechnical Study	**9/21/09**	$6,200	$248			$41,400			$47,848
								Sub-total	**$205,160**
2 Project Definition & Concept Plans									
2.1 Programming & Concept Workshop	**8/27/09**	$33,260	$1,330	$53,350					$87,940
2.2 Concept Design Plans	**10/9/09**	$36,680	$1,467	$55,900					$94,047
2.3 Presentations and Report	**10/19/09**	$28,680	$1,147	$12,000	$8,000				$49,827
								Sub-total	**$231,815**
3 Environmental Assessment									
3.1 Initiation	**9/18/09**	$8,760	$350						$9,110
3.2 Assessment	**8/30/10**	$77,530	$3,101				$15,000		$95,631
								Sub-total	**$104,742**
4 Preliminary Design & Engineering									
4.1 Site Access	**12/7/09**	$29,940	$1,198						$31,138
4.2 Utilty Relocation	**12/31/09**	$20,360	$814						$21,174
4.3 Intersection Improvements	**12/17/10**	$79,480	$3,179		$15,000				$97,659
								Sub-total	**$149,971**
5 Final Site & Road Documents									
5.1 Site Access	**4/16/10**	$32,140	$1,286						$33,426
5.2 Utilty Relocation	**4/16/10**	$24,510	$980						$25,490
5.3 Intersection Improvements	**1/21/11**	$67,180	$2,687		$15,000				$84,867
								Sub-total	**$143,783**
								TOTAL ESTIMATED FEES	**$835,471**

JJR

CITY OF ANN ARBOR

FULLER INTERMODAL TRANSPORTATION STATION

AAFITS - JJR WORK PLAN

08/05/09

Item	due date	PM/CE Fekete 160	CE Zimmerman 100	LA Doyle 145	LA Greene 85	CADD Cox 90	EA 1 Billetdeaux 145	EA 2 Eckland 100	SURV Piatt 130	Assit Wilson 70	QA/QC Lodewyk 160	hrs	labor	expenses	sum of tasks
1 Site Investigation, Inventory & Survey															
1.1 Existing Conditions Assessment	**8/28/09**	32	32	32	32					20	2	150	$17,400	$696	**$18,096**
1.2 Transportation Study	**10/21/09**	10	40							4	2	56	$6,200	$248	**$6,448**
1.3 Topographic Survey	**9/21/09**	10	10			60			120	4	2	206	$24,200	$968	**$25,168**
1.4 Geotechnical Study	**9/21/09**	10	40							4	2	56	$6,200	$248	**$6,448**
SUB-TOTAL		**62**	**122**	**32**	**32**	**60**		**0**	**120**	**32**	**8**	**468**	**$54,000**	**$2,160**	
												0			
2 Project Definition & Concept Plans															
2.1 Programming & Concept Workshop	**8/27/09**	60	40	60	40		20			30	16	266	$33,260	$1,330	**$34,590**
2.2 Concept Plan Development	**10/9/09**	60	80	40	40	80				20	8	328	$36,680	$1,467	**$38,147**
2.3 Presentations & Report	**10/19/09**	60	40	40	40	20				40	8	248	$28,680	$1,147	**$29,827**
SUB-TOTAL		**180**	**160**	**140**	**120**	**100**	**20**	**0**	**0**	**90**	**32**	**842**	**$98,620**	**$3,945**	
												0			
3 Environmental Assessment															
3.1 Determination	**9/18/09**	2	10	2	10		20	20		20		84	$8,760	$350	**$9,110**
3.2 Assessment & Documentation	**8/30/10**	10	10	10	20		220	330		80	8	688	$77,530	$3,101	**$80,631**
SUB-TOTAL		**12**	**20**	**12**	**30**	**0**	**240**	**350**	**0**	**100**	**8**	**772**	**$86,290**	**$3,452**	
4 Preliminary Design & Engineering															
4.1 Site Access	**12/7/09**	40	80	20	40	80				20	4	284	$29,940	$1,198	**$31,138**
4.2 Utilty Relocation	**12/31/09**	32	60			80				20	4	196	$20,360	$814	**$21,174**
4.3 Intersection Improvements	**12/17/10**	72	300	20	40	300				30	16	778	$79,480	$3,179	**$82,659**
SUB-TOTAL		**144**	**440**	**40**	**80**	**460**	**0**	**0**	**0**	**70**	**24**	**1258**	**$129,780**	**$5,191**	
5 Final Site & Road Documents															
5.1 Site Access	**4/16/10**	40	100	10	30	100				30	4	314	$32,140	$1,286	**$33,426**
5.2 Utilty Relocation	**4/16/10**	32	80	10		80				30	4	236	$24,510	$980	**$25,490**
5.3 Intersection Improvements	**1/21/11**	72	200	40	60	200				60	16	648	$67,180	$2,687	**$69,867**
SUB-TOTAL		**144**	**380**	**60**	**90**	**380**	**0**	**0**	**0**	**120**	**24**	**1198**	**$123,830**	**$4,953**	
	TOTALS	**542**	**1122**	**284**	**352**	**1000**	**260**	**350**	**120**	**412**	**96**	**4538**	**$492,520**	**$19,701**	**$512,221**

JJR