Ann Arbor
Multi - Modal
Transit Center

ANN ARBOR MULTI - MODAL TRANSIT CENTER

Issue Analysis

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JJR
landscape architecture
planning
urban design
civil engineering
environmental science

CITY OF ANN ARBOR MICHIGAN

Ann Arbor Multi-Modal Transit Center Issue Analysis

Table of Contents

Appendices

List of Figures

PROJECT OVERVIEW

PURPOSE

As a step towards implementing the Mayor's Model for Mobility, the City of Ann Arbor is beginning to investigate the potential for developing a multi-modal transit center on city-owned property located to the south of Fuller Road and adjacent to the University of Michigan (UM) Medical Center campus (Fig. 1). One of the goals of this investigation will be to determine whether it is possible to replace one of the parking decks the UM has proposed to develop on Wall Street with parking at the multi-modal center, to the benefit of both the City and the UM.

The western end of the site under consideration is currently used as a surface parking lot (leased to the UM); this is the portion of the site that is proposed as the location of the multi-modal transit center. The eastern end of the site is currently used by the Parks and Recreation Department for a "overflow" soccer field and also includes a wetland area and stormwater detention area adjacent to the Huron River.

The initial phase of the multi-modal center is expected to include a commuter rail station on the Norfolk Southern (NS) track, a bus transit center (accommodating both Ann Arbor Transportation Authority and UM buses), a parking deck, vertical circulation connections (escalators, elevators and stairs), a pedestrian skywalk linking the multi-modal center to the UM Hospital above E. Medical Center Drive, as well as green space improvements. Future phases may include a local transit connector route (Local Connector) from northeast Ann Arbor to Downtown, the relocation of the existing Amtrak station to the multi-modal center, as well as possible additional building square footage with support parking.

The purpose of this issue analysis report is to assemble and review available information to identify key issues. The information provided here will inform the City's decision on whether to undertake a more detailed feasibility study; help to structure the feasibility study approach and provide a preliminary context for discussions with potential partners in the multi-modal transit center, including the UM, Ann Arbor Transportation Authority (AATA), SEMCOG, MDOT, Amtrak and NS.

PROCESS

A consultant team[1] was assembled to work with City staff[2] , representatives of the AATA and Downtown Development Authority (DDA) in gathering available information and making an initial assessment of feasibility issues and the potential benefits of the multimodal transit center idea. The group met in an initial workshop to identify priority information needs and sources and to brainstorm a preliminary list of potential feasibility issues and benefits. Information was gathered and reviewed with

[1] The consultant team included representatives from JJR, Quandel Associates and Carl Walker Parking.

[2] City staff participants included representatives from Planning; Parks & Recreation; Systems Planning and Project Management.

City staff over the next several weeks. City staff also answered many questions and offered opinions on a range of topics via email and phone conversations.

A second full day workshop was held to test the feasibility of accommodating initial assumptions on Phase I multi-modal center program needs; to develop order-of-magnitude costs for program components and to discuss a preliminary timeline/critical path for moving the project forward.[3]

[3] Including undertaking a feasibility study; amending existing master plans and modifying zoning text; preparing an environmental assessment; negotiating with project partners; completing design and engineering (including reviews and approvals) and construction.

Ann Arbor Multi-Modal Transit Center

Figure 1. Vicinity Map

0′ 500′ 1000′ JJR 01/30/2009

FEASIBILITY ISSUES/BENEFITS

Participants in the pre-feasibility study identified the following issues and potential benefits related to the multi-modal transit center.

FEASIBILITY ISSUES

The feasibility issues are grouped in two categories; potential "go/no go" issues and design/technical issues.

Go/No Go Issues

These issues concern the feasibility of:

- Achieving community acceptance (through public participation in the feasibility study and a master plan amendment process) of the use of a site currently master planned as parks and open space for a transit center;
- Reaching mutually acceptable agreements, primarily between the City and the UM, on project program and schedule parameters and cost sharing; and
- The overall cost of the project and the availability of funding.

Key go/no go issues for the two primary project partners are expected to include:

City/AATA

- Determining whether use of the site (master planned for parks and open space) for transportation is acceptable to the community and city leadership; identifying open space mitigation strategies, as needed.
- Making a final determination concerning any deed restrictions on use of the site.
- Negotiating an agreement with the UM to forego (or delay) construction of one of the proposed parking decks on Maiden Lane.
- Determining whether the overall cost is considered excessive and if local funds are available to support City cost assignments (and possible commuter rail operating subsidy).
- Determining whether AATA will be able to obtain grants to partner/share costs.

UM

- Determining whether the date for the construction completion of needed UM parking at AAMMTC (estimated availability in 2014)[4] is acceptable and identifying interim parking strategies (2011 – 2014), as needed.
- Determining whether the UM is willing and able to partner in funding and whether mutually acceptable cost assignments for construction, operations, and maintenance can be negotiated.

[4] See Critical Path Diagram. The UM estimates that a minimum of 614 parking spaces will be required to meet their needs in the Wall Street/Medical campus area by mid to late 2011. This total includes replacement of spaces currently leased to the UM on the AAMMTC site (250 spaces) and at Fuller Park (95 spaces), as well as a 269 space deficit anticipated in the Wall Street area.

- Determining whether the impact of the AAMMTC deck on views to/from hospital is considered acceptable.

Design/Technical Issues

Planning Context

As noted above, the AAMMTC site is currently master planned (Park Recreation and Open Space Plan and Central Area Plan) as parks and open space. In addition, the site is zoned Public Land (PL), a zoning classification that does not explicitly allow for a transit center as a principal permitted use. Current practices indicate that these master plans will need to be amended to allow for the AAMMTC. However, it was expressed by City staff that this was not necessarily a requirement because the City can allow uses of its land as it deems in its best interest. As a result, the following issues must be addressed.

- Additional research is needed to confirm there are no deed restrictions. A title search should be performed to accomplish this task.
- PL zoning should be amended to explicitly permit a multimodal transit center.

Site

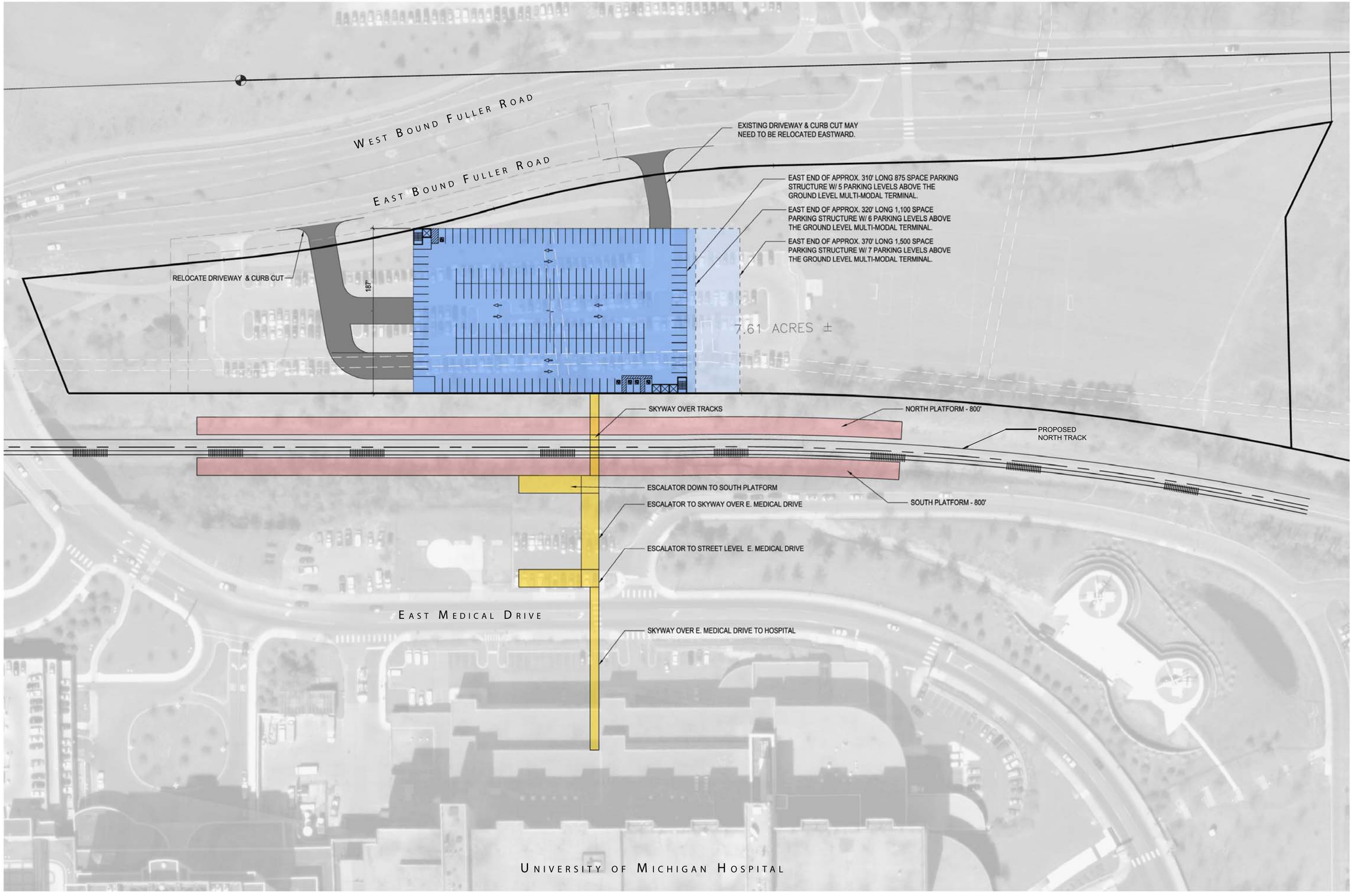
Preliminary investigations confirm that a variety of deck configurations, accommodating from 875 to 1,500 parking spaces can be accommodated on the eastern end of the site (Fig. 2). However, the relocation of a portion of an existing sanitary line (to the perimeter of the parking deck/transit center footprint), or other protection strategy, will be required, as well as modifications to existing DTE easements. There may be substantial costs associated with the needed modifications to the existing DTE easements in the form of relocating existing utilities, land acquisition for new easements, etc. These costs most probably would be project expenditures because the existing easements are located on private land and not public right-of-way.

Two access drives will be needed and can be provided; these driveways should be located no closer to the already congested Fuller Road/Maiden Lane intersection than existing driveways to the surface parking area. Concerns have been expressed by both the UM and AATA about the difficulty/delay associated with left turn movements eastbound onto Fuller Road for buses connecting to Central Campus and Downtown.[5]

Site-related feasibility issues include:

- Additional analysis may be needed to demonstrate why the proposed AAMMTC site is uniquely suited for this use. Factors are likely to include public land ownership; adequate size to accommodate the proposed program; proximity to a major employment destination; easy access to existing and proposed transit routes.
- A site survey is needed; the Fuller Road and NS ROW require verification.
- An investigation of subsurface information is needed.

[5] In the future, a high volume Local Connector (BRT or streetcar) may carry these Central Campus and Downtown riders. The Local Connector route has not been finalized.



ANN ARBOR MULTI-MODAL TRANSIT CENTER

FIGURE 2 - PARKING DECK FOOTPRINT

0' 100' 200' JJR 01/30/2009

- The vehicular and pedestrian circulation implications of locating the AAMMTC on Fuller Road need to be investigated. Special attention should be paid to the location of proposed access drives and the operation of the Maiden Lane/Fuller Road intersection. Such an analysis should include the potential reduction of vehicle and transit trips to/from the Wall Street area. Mitigation strategies should be proposed, if needed.
- A solution may be required to facilitate left turns westbound for buses exiting the AAMMTC onto Fuller Road.
- The best site layout to accommodate the AAMMTC while minimizing the cost of relocating the existing sanitary line should be studied.
- An approach to relocating non-City utilities (DTE) needs to be developed and negotiated with DTE (approvals; funding).
- The potential need to upgrade utilities to accommodate AAMMTC and/or Local Connector should be evaluated.
- Any increases in stormwater volumes should be quantified and a management strategy proposed.
- The impact of the AAMMTC on existing UM helipads and flight paths needs to be evaluated and solution strategies discussed.
- The impact of the AAMMTC on the visual character of the Huron River valley and/or hospital should be evaluated.

Commuter Rail

The Ann Arbor-Detroit Commuter Rail Project being initiated by SEMCOG is scheduled to begin October 25, 2010. It is a 3-year project to test viability based on ridership. Initially 4 daily round trips are planned with a goal of 1,000 passengers per day. The existing Amtrak Station can serve as the commuter rail stop until the proposed AAMMTC is approved and constructed (estimated 2014). At that time, it is assumed that the commuter rail station/Amtrak depot will be incorporated within the ground floor footprint of the parking deck.

The existing NS rail line will accommodate commuter rail service. Ultimately, as commuter roundtrips increase, and high speed intercity/Amtrak service is added, a second track and a 2nd side platform will be required. The possible future need for a third track could be avoided by adding universal crossovers to the east and west of the AAMMTC when the second track is added. (See 1-16-09 Meeting Summary in Appendices).

Commuter rail-related feasibility issues include:

- It will be necessary to demonstrate that the AAMMTC will have "independent utility' to the City and the UM even if the Ann Arbor-Detroit Commuter Rail Project were to fail/be discontinued at the end of the funding commitment (3 years).
- Local operating subsidies may be required in the future; the level of potential subsidy and strategies for providing funding should be estimated as part of the overall AAMMTC costs.
- Estimates of initial ridership and ridership growth need to be developed/refined in order to appropriately size the Phase I AAMMTC deck and future expansion.

- Negotiations with NS will be required to permit the construction of commuter rail platforms and skyway supports within the rail ROW; NS approvals, and potentially, compensation will be needed.

Parking and Buses

Preliminary estimates of the number of parking spaces to accommodate commuter rail users and UM needs suggest that a minimum of 714 spaces[6] will be needed initially; it has been suggested that the Phase I deck have a minimum of 800 spaces. As many as 10 bus waiting bays can be provided on the ground level of the AAMMTC parking deck.

The Parks and Recreation Department currently receives parking lease revenues totaling approximately $36,600 annually for the 250-space surface lot currently occupying the AAMMTC site and 95 spaces in a gravel lot in Fuller Park. By replacing these spaces in the AAMMTC deck, areas that are currently used for parking can be converted to green or recreation space. However, compensation for lost revenues may be an issue.

In the future, with growth in commuter rail ridership and the relocation of the Amtrak station to the AAMMTC site, additional parking will be needed. UM parking needs may also increase. Expansion of the Phase I deck vertically and to the east (but still within the existing surface parking lot footprint) to accommodate 1,500 spaces is feasible. At 1,500 spaces, the parking deck will include 7 parking levels above the ground level multi-modal terminal.

Parking-related feasibility issues include:

- The quantity of parking needed by each user group (UM, commuter rail, future Amtrak) initially and in the future will need to be investigated in greater detail.
- The community's and UM's reaction to the height of AAMMTC parking deck and its visual impact on E. Medical Center Drive and Hospital will need to be investigated.
- The need to, and strategies for, compensating the Parks and Recreation Unit for lost parking lease revenue should be explored.

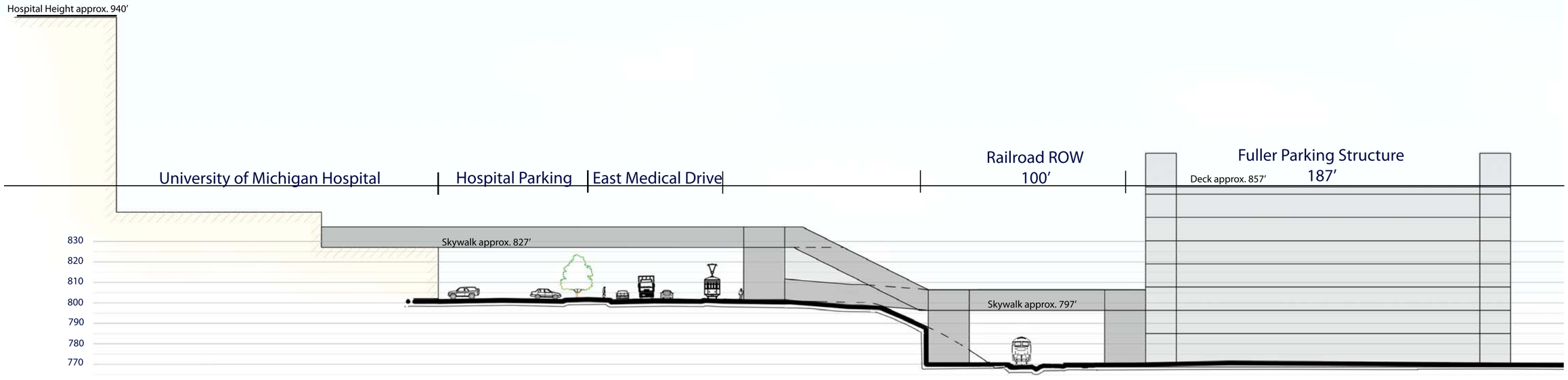
Vertical Transportation/Skywalk Connections

The preliminary concept for the AAMMTC includes vertical transportation (escalators, stairs and elevator) and a skybridge to connect the parking deck/transit center to the UM Hospital above the railroad tracks and E. Medical Center Drive. In addition, a vertical transportation link from the skybridge to the future 2nd side commuter rail platform will be needed. Two of many potential concepts are illustrated in the attached cross section (Fig. 3).

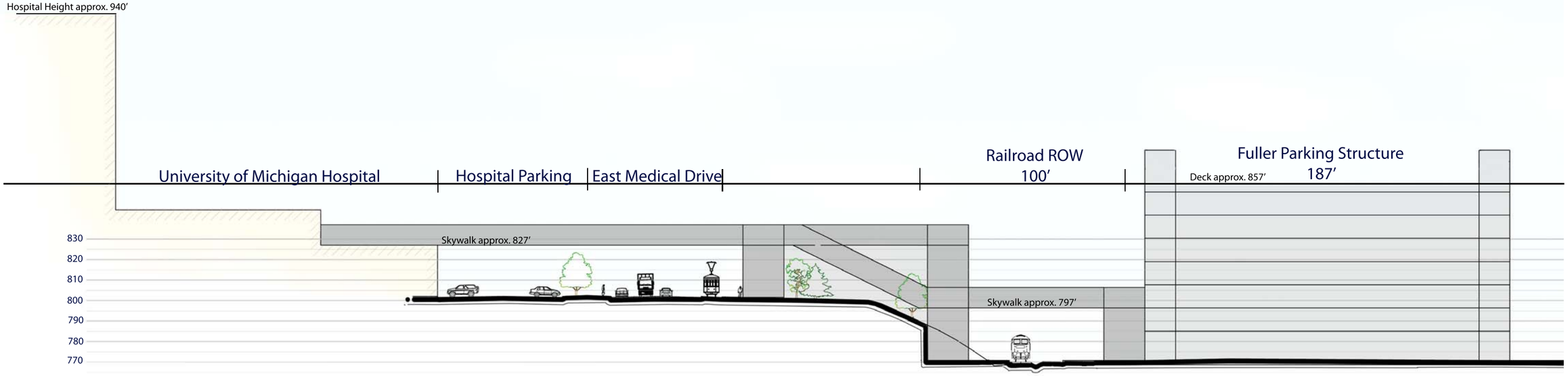
Vertical transportation/skywalk-related issues include;

- Feasible locations for a skywalk link to 2nd floor of UM Hospital require more detailed investigation.

[6] This total includes 269-space deficit anticipated by the UM in the Wall Street area by mid-/late 2011; 250 replacement spaces (leased to UM) south of Fuller; 95 replacement spaces (leased to UM) in Fuller Park and 100 commuter rail spaces.



Vertical Circulation Section - Alternative 1



Vertical Circulation Section - Alternative 2

- Further study of alternatives for configuring vertical transportation and skywalk connections, and their costs, is needed.

Local Connector (future phase)
A high-capacity transit link from northeast Ann Arbor to the AAMMTC and Downtown is an integral part of the Mayor's Model for Mobility. A Local Connector study is expected to begin in the near future. Either this study (or the AAMMTC feasibility study) should address the following route alignment issues:

- How best to integrate the AAMMTC and Local Connector.
- If the route traverses the slope that separates the AAMMTC site and E. Medical Center Drive, issues related to engineering, vertical connections and providing space for a Local Connector stop on E. Medical Center Drive will require detailed investigation.

Regulatory Framework
Depending on the source of funding, a National Environmental Policy Act (NEPA) clearance may be required. NEPA directs Federal agencies to conduct environmental reviews of proposed actions considering potential impacts on the social, economic and physical environment. Federal funding of a project is considered an "action" that could invoke NEPA clearance, most likely in the form of an Environmental Assessment.

In addition to NEPA, Section 4(f) of the United States Department of Transportation (USDOT) Act of 1966, which addresses actions of agencies within the USDOT, may also be applicable to this project[7]. Section 4(f) applies to any significant publicly owned park, recreation area, or wildlife refuge and any land from a historic site of national, state or local significance.

Should a USDOT agency fund a portion of the AAMMTC project, Section 4(f) would apply if the public agency that owns the property has formally designated the Fuller Road property for park, recreation area, wildlife or waterfowl refuge purposes. Evidence of formal designation would be the inclusion of the publicly owned land, and its function as a 4(f) resource, into a city or county Master Plan. A transportation project requiring the use of such land will be approved only if there is no prudent and feasible alternative to using that land and if the project includes all possible planning to minimize harm to the land or resources. The final decision on applicability of Section 4(f) to a particular property is made by the appropriate USDOT agency.

A partial review of City files revealed that an Environmental Assessment/Section 4(f) Evaluation was completed for the Glen/Fuller Transit Project in the early 1980's (exact date unknown) resulting in a Finding of No Significant Impact. During that assessment, it was determined that the Fuller Road Recreation Area was considered significant as a

[7] U.S. Department of Transportation, Federal Highway Administration, FHWA Section 4(f) Policy Paper, Office of Planning and Realty, Project Development and Environmental Review, March, 2005.

Section 4(f) resource due to it's use as a golf practice area, at the time, and its attractiveness as a green space. This prior evaluation in conjunction with the current Master Plan designation of the site as parks and open space suggests Section 4(f) would be applicable depending on source of funds.

Regulatory issues include:

- Confirmation of Federal involvement and the need for NEPA clearance is required.
- Coordination with Federal and local authorities regarding applicability of Section 4(f) to this project is required.
- If NEPA is applicable to this project, topics of concern could include:
    - Potential 4(f) impacts;
    - Road/intersection capacity;
    - Huron River valley visual impacts;
    - Stormwater management and impact to water quality;
    - Concurrence with Norfolk Southern on use of the right-of-way and confirmation that there are no freight/commuter rail conflicts in this location.

Other Issues

In addition to those listed above, the following feasibility issues will require exploration:

- Refinement of AAMMTC program elements (Phase I and expansion).
- Alternative ownership/partnership scenarios including funding sources, cost allocations and operations and maintenance responsibilities.
- Market value/projected revenue for selling/leasing parking capacity, bus transit center, and/or commuter/passenger rail depot, including possible retail components.
- Estimate of revenue generation from potential future (TOD) site development associated with the AAMMTC and how that revenue would be allocated.
- The DDA's potential interest in participating in the project because of the benefit it could create in reducing growth in downtown parking demand.

BENEFITS

Potential benefits of the AAMMTC include:

- Making Ann Arbor a leader in Michigan in shifting from a car-oriented to a transit-oriented model.
- Reducing greenhouse gas emissions, as well as criteria pollutants.
- Having a commuter rail stop located on the proposed transit Local Connector at a major employment destination.
- Supporting UM Medical Center growth by expanding multimodal access.
- Substituting UM parking at AAMMTC for one of the proposed decks on Maiden Lane.
- Providing a transit alternative that could reduce UM surface parking in the Huron River valley.

- Reduction of traffic congestion (or growth in traffic) at the busy Fuller/Maiden Lane intersection by providing alternative access to Medical Center.
- Providing a more direct/efficient route for AATA than the Maiden Lane transit center alternative.
- Providing convenient, universally accessible pedestrian connections between commuter rail service at the AAMMTC and the UM Medical Campus.
- Encouraging transit-oriented development (TOD) in the Wall Street area and, possibly, on the AAMMTC site.
- Taking pressure off the downtown parking supply by providing expanded transit alternatives.
- Providing convenient parking for commuter rail.
- Incorporating a state-of-the-art bicycle commuter station in the AAMMTC
- Re-use of the Amtrak site.
- Consolidation of Fuller Park surface parking leased to UM into AAMMTC freeing up land for open space.
- Replacement of a 95-space gravel parking lot in Fuller Park with green or recreation space.
- Restoration of portions of 250-space surface lot south of Fuller Road as green space.

ORDER-OF-MAGNITUDE COSTS*

Parking deck (875 Vehicle)	$ 18.0 million
Escalators/Elevators	$ 4.0 million
Bus Stalls on Ground Floor	$ 3.8 million
Skywalks	$ 2.2 million
Bus Waiting/Transit, Ticket, Visitor Area (3000 SF)	$ 0.9 million
Rail Improvements	$ 3.1 million
Sub-Total	$ 32.0 million
Plus 15% for engineering, testing and inspection	$ 4.80 million
Plus 10 % contingency	$ 3.20 million
Total	**$ 40.00 million**

Future Phases

2015

Track improvements	$ 6.8 million
Sub-Total	$ 6.8 million
Plus 15% for engineering, testing, inspection	$ 1.02 million
Plus 10% for contingency	$ 0.68 million
Total	**$ 8.50 million**

2020

South side rail platform	$ 0.9 million
Escalators/elevators	$ 2.0 million
Parking deck capacity increase to 1,100	$ 4.6 million
Sub-Total	$ 7.5 million
Plus 15% for engineering, testing, inspection	$ 1.13 million
Plus 10% for contingency	$ 0.75 million
Total	**$ 9.38 million**
Grand TOTAL	**$ 57.88 million**
2012 escalation	$ 64.17 million

*Except where noted all costs are in 2009 dollars.

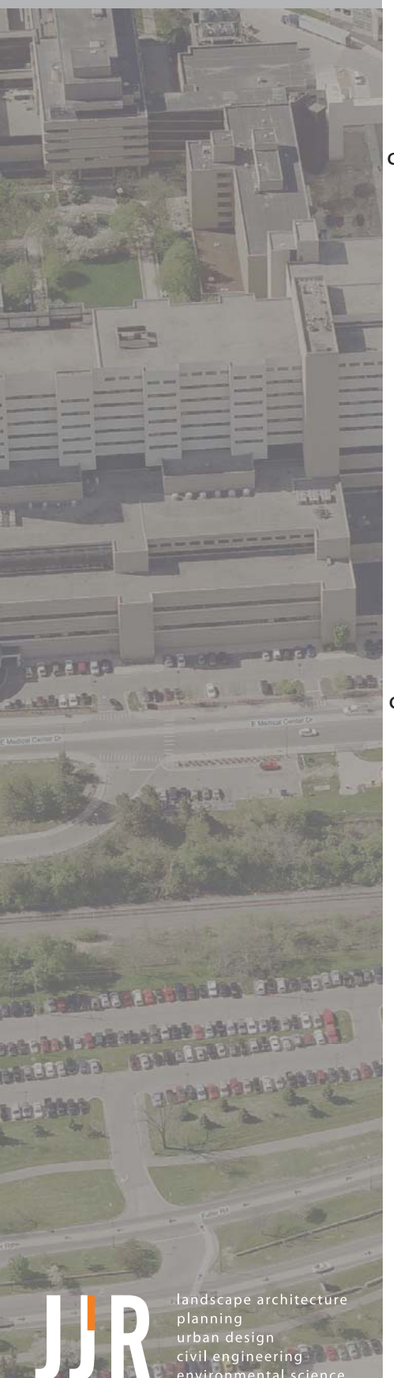
CRITICAL PATH EVALUATION

The critical path evaluation, developed with the assistance of participants in the pre-feasibility study, provides a timeline for accomplishing the following tasks:

- Preparing for a feasibility study, including consultations with the Parks Advisory Committee, Planning Commission and City Council; the development of a community information strategy and the selection of a consultant.
- Undertaking the feasibility study.
- Amending existing master plans (PROS and Central Area Plan) to include the needed principle permitted uses. This task would be completed with the community's involvement.
- Review and decision-making with project partners at the conclusion of the feasibility study and throughout the design/engineering process.
- An Environmental Assessment (assuming federal funds are used in the project)
- Design and engineering (from concept design through final design), including review and approval steps.
- Bid award and contract execution.
- Construction.

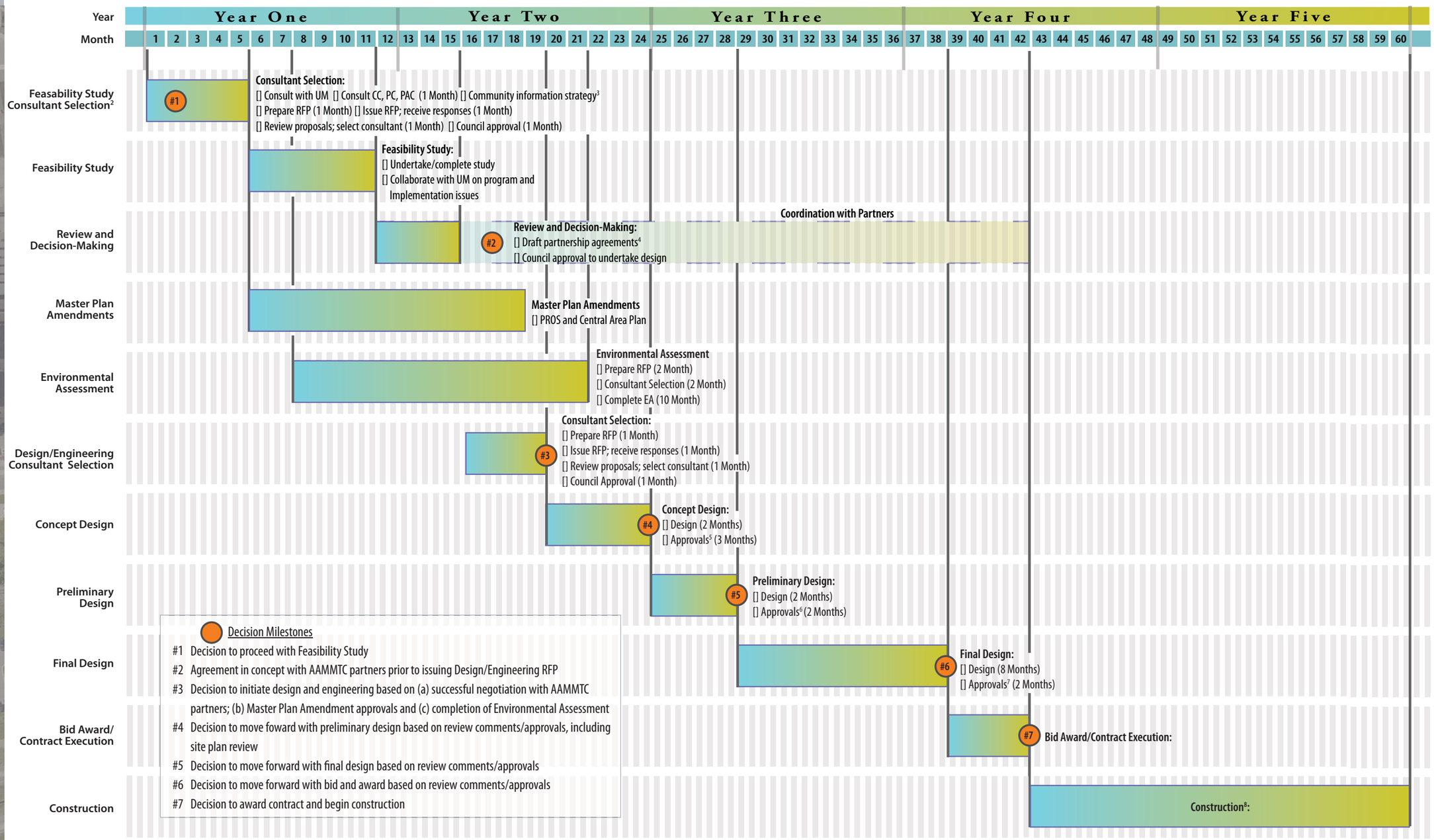
As illustrated in the attached diagram, it is estimated that completion of these tasks will require 60 months (5 years) with the earliest possible start date likely to be March 2009.

Ann Arbor Multi - Modal Transit Center



AAMMTC - Critical Path Evaluation (56-60 Months)

Important Dates: Ann Arbor to Detroit Commuter Rail - October 2010[1],
University of Michigan Medical Center Parking Deck - Mid 2011



[1]Assume commuter rail will operate from existing Amtrak station with additional parking provided at DTE site.
[2]Assume City will fund Feasibility Study.
[3]To announce and describe Feasibility Study purpose.
[4]Concept agreement on partnerships: funding/cost allocations, ownership, operation and maintenance responsibilities, etc.
[5]Assume site plan review required.
[6]Assume review by City staff, UM and other partners.
[7]Assume review by City staff, UM and other partners.
[8]14-16 months for 875-space deck. 14-18 months for 1,100-space deck.

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