

UCTC City of Kingston Intermodal Facility Facility Site Location & Conceptual Design Analysis

Final Report

FACILITY RECOMMENDED PLAN

Concept Designs for Preferred Sites

Historically speaking, intermodal centers not only elevate ridership and the overall traveling experience, but elevate the perception of public transportation through well executed facility design. They also typically serve as the first facility a traveler experiences upon entering a city, and should therefore provide a lasting and positive impression. When sited correctly, a facility of this type has the potential to become a gateway icon, even a moniker for the city it serves.

Cities such as Fredericksburg, Virginia and Kalamazoo, Michigan have successfully transformed their service into a state-of-the-art facility, simultaneously spurring economic growth in the surrounding community. These facilities are much more than transfer points; they are solid, urban planning catalysts that connect all points of the city for the traveling public.

In order to extract the salient points for how the facility should look and how the facility will be perceived, Wendel Duchscherer led a 'visioning session' with the TAC. The following items were raised during the discussion and would be included in the design during subsequent phases of the project (see implementation plan below).

- Purely modern designs would be inappropriate.
- NY and OW Fair Street Depot could be considered for design issues.
- The area was once considered the "warehouse" of the nation.
- Concrete, brick, and blue stone were exported from this area.
- Brick and native limestone would be a nice gesture, especially if the project is near the stockade district.
- Brickways and cobbles are specific to this area and in many pedestrian walks.
- Kingston's historical status as the NY capitol is worth noting.
- A three-story building could possibly provide views of the Catskill Mountains.
- Outdoor public space would be ideal.
- Open areas should flow from the building; there should be no hard edge between inside and outside.
- Trees and landscaping are very important.
- Exhibits and artwork, both indoor and outdoor, are important to explore; consider hanging sculpture and local artist Franc Palaia.
- Citizen's Bank mural from the 1970's would be worth exploring as a possible borrowed art concept.
- Timeline ideas could be implemented as a detail
- Day lighting and windows are very important.
- Amenities need to be clean.
- Add a WiFi component to the facility.
- LCD monitors would be important.

UCTC City of Kingston Intermodal Facility Facility Site Location & Conceptual Design Analysis

Final Report

- A police substation needs to be discussed by the TAC.
- Sustainable components of design include daylighting, green roofs and photovoltaics.

These items were qualified and incorporated with the space programming as discussed earlier in the report. In general, no major changes were required from the earlier programming effort.

The two sites were analyzed and discussed based on the visioning session; specific architectural context emerged specific to both sites. The design of each site was developed intentionally to contrast the other. This was part of the Wendel Duchscherer design process since the point of these concepts is to invoke responses from the public per NYS SEQR regulations.

Site S1's location is a prime urban lot, however the site is somewhat constrained for building, parking and bus operations. The plan for site S1 allows for programming along the outside perimeter of the building linking the streetscape and major public access and circulation to the centrally located atrium which directly accesses all building functions.

Site S8 is a more open area with flexibility that will allow future growth as well as connection to major roadways. Originally a rectangular mass, the plan for site S8 began to open itself up at the east side to provide public access to the main waiting area. The private, secure program elements are adjacent to the waiting area.

Site S1

The unique site context of site S1 is relatively close to downtown Kingston, the building's form is mostly dictated by the property line along Washington Street. Its position on the site was chosen based on numerous studies of the area and reacting to bus movements around the site.

Its façade along the street side of the site begins to reflect the traditional architectural style of the City of Kingston while also dealing with the sites existing grade changes. As you move from the north and east façades, you get a better sense of the openness of the facility, visually connecting the interior to the buses and taxis outside.

A logical approach to the floor plan was to design the main functional spaces of the building around a major atrium allowing ease of access to bus and taxi drop-off occurring at the north and east sides of the facility. The waiting area, coffee shops and retail have direct access to the elevator and stairs. The stair is placed off center of the plan, providing an opportunity to create an open staircase as a main design feature and wayfinding device for the facility.

All major public programs begin to face the corridor for easy access, with ticketing being located directly adjacent to the bus drop off/pickup. Retail/tourism is located

UCTC City of Kingston Intermodal Facility Facility Site Location & Conceptual Design Analysis

Final Report

along Washington Ave. for ease of public access as well as to accommodate separate hours of operations. The main bus canopy emanates from the facility, extending far enough to cover the baggage compartments of the intercity buses.

The second floor contains the majority of office and facility management functions. This allows the use of a decorative balcony for views to the first floor below and the Catskill region beyond. The location of these office spaces and balcony will allow for as much security or privacy as needed operationally. The total square footage of site S1 building is approximately 11,870 SF.

Site S8

Site S8 allows for an open floor plan as well as more opportunities to develop future expansion options both vertically and horizontally. While the program would easily fit on the site as a one-story option, the prominent location of this site as an entrance to the city, as well as multi-compass point sight lines warranted exploring a two-story design totaling approximately 19,190 SF.

The rectangular plan of the building was turned at an angle from the bus functions to allow for more open space opportunities. A farmers market with green space was located on the edge of the building to give a more public sense from Washington Ave. The south façade is the most iconic portion of the facility, housing the Tourism Center for Kingston in a glazed shell, visually inviting visitors to the Center.

The waiting area was based on a theme of a market-like atmosphere, blending services supporting the waiting area with views of bus arrivals and departures. Like site S1, a balcony condition overlooking the waiting area accentuates this large open space, ending at the large overhang steel roof. Along the market faces, wall materials transition into the railing above, visually linking the first and second floors of this magnificent space.

Future expansion and certain office conditions were placed on the second floor to allow for ease of movement and transition on the first floor program areas. Two sets of grand staircases allow for access to the second floor, bookending the large waiting area.

A large canopy emanates from the facility, extending far enough to cover the baggage compartments of the intercity buses. Main public entrance points along the building occur at the parking and local bus areas. Glass was specifically utilized to emphasize public areas and increased security/sight lines. Solid, opaque surfaces emphasize the private, more secure operational areas of the facility.

Probable Cost Estimates

A conceptual level cost analysis for sites S1, S8 and S11 was completed based on approximate square footage of the conceptual site development options, including the

UCTC City of Kingston Intermodal Facility Facility Site Location & Conceptual Design Analysis

Final Report

building, canopy, site work, and pavement. The total estimated probable cost of the preferred sites may be reviewed as follows:

S1	\$7,166,472
S8	\$9,147,378 (entire site raised 3' due to flood plain)
S8	\$7,698,918 (only building raised 3' and site sloped to building as required)
S11	\$5,848,692 (without I-587 connection)
S11	\$17.9 million – \$29.9 million (with I-587 connection)

Refer to the end of this section for further detail of the conceptual probable cost analysis.

Implementation Plan

Understanding State & Federal Requirements

Before authorizing construction of the new transportation facility, the FTA must ensure that the provisions of the National Environmental Policy Act (NEPA) are met. The applicable provisions of the FTA's NEPA requirements are found in 23 CFR § 771. This section defines what environmental review procedures must be followed for the construction of new transit facilities, specifically whether a categorical exclusion (CATEX), an Environmental Assessment (EA) or Environmental Impact Statement (EIS) must be prepared for the proposed action. The goal of the CATEX, EA or EIS is to obtain a Finding of No Significant Impact (FONSI) from the FTA due to there being no significant impacts, or appropriate mitigation measures incorporated into the design where impacts are shown to occur.

Plan for Adherence to Project Schedule

Establish a project schedule and proactively manage the design process using experience on similar intermodal facility projects, knowledge of federally funded project requirements, a strong project management system, and the use of project scheduling software (Microsoft Project / Primavera Suretrack). Organization of the project input and decision making processes, plus avoidance of rework, are the keys to maintaining any schedule. Stay ahead of the project during each step by maintaining effective lines of communication and facilitating the information gathering and sharing process.

Project Cost Control

Establish a construction budget and include cost control as part of the project from day one of the design process. By doing this, a cost control baseline can be established that will guide the project team as they do their work. This baseline will help establish the type, quantity and quality of materials that the project can expect to afford, including the engineering systems. This can then be compared to the TAC's budget and expectations, and if necessary, refinements can be made to either the project budget or scope in the early phases of the project. This will help avoid costly time

UCTC City of Kingston Intermodal Facility Facility Site Location & Conceptual Design Analysis

Final Report

delays later due to design revisions, as well as avoid raising false hopes and expectations by showing designs that cannot be constructed for the available budget.

Project Kick-Off Meeting

The project kick-off meeting will be attended by representatives from the TAC concerned with the management and design of this project, as well as the design team. The agenda will include:

- Identify project team members and decision making structure
- Establish lines of communication and reporting format
- Identify pertinent project information
- Identify sustainable design parameters to be included in the project
- Establish project schedule, milestones and deliverables
- Establish project funding and construction budget
- Identify required existing studies to be used

Site and Project Evaluation

Perform field investigations of the preferred site and existing buildings. Additional field investigation will be necessary during the design phases. Photographing the existing conditions so that we can use these as a resource in the preparation of our documents is also part of our field investigation plan.

This investigation will produce first-hand knowledge of such critical items as existing grades and contours, existing operational patterns, prevailing wind and weather direction, design context of the surrounding environment, and unique site elements.

Existing Documentation Review

The data collection effort and existing document review would include obtaining and reviewing the following information if available:

- Planimetric base mapping of the area
- Local master plans
- Previous development plans and studies
- Record plans of relevant existing onsite facilities
- Digital photographs of existing conditions
- Right-of-way and property information
- Zoning data
- Land use plans
- Historical and archaeological records
- All environmental site assessments and investigations
- Utility Information – identify where reliable existing utility survey drawings can be obtained. If reliable existing information is determined not to be available, establish criteria and procedure for obtaining this information.

UCTC City of Kingston Intermodal Facility Facility Site Location & Conceptual Design Analysis

Final Report

Public Outreach and Participation

Develop a public involvement plan for the project. The plan will outline the public involvement program and will identify key contacts with agencies, the news media, public officials, citizens' groups, neighborhood associations, and the general public. The plan will identify the methods to be used for informing the public about the project and for soliciting public input to the process.

The design team would assist the TAC with preparation of presentation materials for use in presentations to the involved agencies, community groups and traveling public that will be affected by the project. These meetings and presentations are the forum for the exchange of information and ideas and serve as a catalyst for generating continued community, involved agency and stakeholder support and enthusiasm. The approach should be very collaborative in nature and rely heavily on graphics, physical models and written information as presentation aids.

Topographic, Planimetric and Property Line Survey

If a current, detailed topographic, planimetric and property line survey of the existing site does not exist, the design team will work with the TAC to produce an ALTA survey. The following information will need to be obtained and shown:

- Limits of survey will extend out to approximate center of pavement adjacent to each site and include, but not be limited to:
 - entranceways and roadways along opposite side of road adjacent to the proposed site
 - spot elevations at the appropriate interval to show a 50 foot grid covering the parcel
 - locations of structures, paved areas, sidewalks, landscaped areas, perimeters of thickly wooded areas, trees greater than six inches in diameter, curbs and curb cuts
 - other visible above ground improvements, floor and basement of existing buildings (if applicable)
 - approximate overhead and underground utilities based on field evidence and record information (inverts and pipe sizes will be included in this task)
- Survey property lines, set property corners where required and reference existing monumentation to property corners
- Establish right-of-way boundaries and easements
- Note ownership and zoning of subject and adjacent parcels
- Forward base map to public and private utility owners for confirmation and mark-up of utility locations
- Update base map with utility information
- Provide a legal description of the proposed subject parcel
- Show all easements with their legal description

UCTC City of Kingston Intermodal Facility Facility Site Location & Conceptual Design Analysis

Final Report

Geotechnical Information

If a current geotechnical engineering report for the existing site does not exist, the design team will work with the TAC to obtain one. The geotechnical investigation program that will produce a report containing the following:

- Brief description of proposed project
- Description of field investigation program.
- Description of site subsurface and geologic conditions
- Test boring logs, boring location plan
- Recommendations for foundation types, bearing pressure, groundwater control, and construction considerations
- Recommendations regarding fill and backfill materials
- Recommendations for retaining wall engineering and construction, if such are required

Project Definition/Concept Design & Alternatives Analysis (Approx. 10%)

In this phase, the preliminary work of the previous study will be evaluated for compliance with current city planning standards (change in scope and furlough) since the original study. If needed, the design team will:

1. Develop design standards for:
 - Turning radii, road dimensions, and pavement construction for all vehicles using facility.
 - Parking areas.
 - Bus circulation zones.
 - Pedestrian requirements.
 - Universal accessibility requirements.
 - Minimizing environmental impact of noise, lights, and drainage.
2. Develop a written Space Program that will identify:
 - Sizes and areas required (interior & exterior)
 - Applicable design criteria
 - Vehicle requirements
 - Juxtaposition of key spaces
 - Functional requirements
 - Philosophy of shared operations
 - Plans for future growth
3. Using existing surveys, analyze multiple "big picture" conceptual functional layouts for the new facility, to include orientation on the site, transit vehicle circulation, automobile traffic, and pedestrian travel.

UCTC City of Kingston Intermodal Facility Facility Site Location & Conceptual Design Analysis

Final Report

4. Discuss the conceptual building systems (e.g. structural, façade, roofing, mechanical, electrical, maintenance equipment) including their impact on construction cost and preliminary life cycle costs.
5. Prepare site and building renderings to illustrate the design.
6. Identify applicable codes for the project and the agencies that enforce them. Prepare a preliminary written code review that defines the basic code requirements as they specifically relate to this project.
7. Prepare a conceptual construction cost estimate based on unit costs. Participate in discussions with the TAC to reconcile the conceptual cost estimate with the available construction budget.
8. Participate in regular project and public meetings with the TAC to review the progress of design and solicit additional feedback.

At the completion of this phase, a Concept Design Report will be issued containing narrative and graphic documentation explaining the design. It will contain all the items described in numbers 1 through 8 above.

Environmental Compliance

Upon completion of the Concept Plan for the facility, prepare and submit an Environmental Assessment (EA) conforming to the environmental regulations of the Federal Transit Administration. The EA will evaluate and address all potential effects on the surrounding community and environment. This report will address and encompass at least the following major elements:

1. Data Collection and Evaluation Survey
 - Preview of all the existing reports, information and data pertinent to the site. Studies of those areas for which no data is available according to standard environmental investigative procedures will be collected as required. Initiate contact with all affected parties.
 - Evaluate data as collected to identify and pinpoint those issues and impacts which are significant and non-significant. Begin process of focusing on significant impacts.

2. Environmental Assessment Process

Evaluate and assess the impacts of the proposed work upon the surrounding community and area both during and after construction. Determine requirements of appropriate governmental regulations upon the work. The elements to be reviewed include but are not limited to:

UCTC City of Kingston Intermodal Facility Facility Site Location & Conceptual Design Analysis

Final Report

- Right-of-way (acquisition/displacement)
- Zoning and land use
- Air quality
- Noise levels
- Traffic and transportation
- Neighborhood impacts/social effects/socioeconomics
- Water resources and quality
- Flood hazard potential
- Aesthetics
- Utilities, public facilities and services
- Cultural resources
- Farmlands
- Threatened and endangered species
- Security and safety

The goal of the Environmental Assessment will be to determine the overall environmental impact of construction and operation. This includes conformance to the requirements of the National Environmental Policy Act (NEPA) as well as NYS SEQRR environmental regulations. As appropriate, we will prepare all documents for preparation of a Finding of No Significant Impact (FONSI) or development of the environmental document necessary to proceed to construction.

Joint Development Concerns

Retail users support the FTA's Livable Communities Initiatives, as well as SAFETEA-LU. Possible functions that are transportation supportive, which might develop in adjacent areas, include:

- Newspaper / bookstore / retail
- Welcome center / travelers aid
- Chamber of Commerce / convention and tourism
- Community service rooms / childcare
- Satellite police sub-station
- Restaurants / fast food

For optimum benefit to the community, incorporation of supportive development is essential. Making this strategic capital investment will also insure a continuous revenue stream to offset the cost of operations and maintenance, which can be significant. This is an area of importance to the project and warrants additional study.

Design Development / Engineering (Approx. 30%)

This task will fully describe the materials and character of the building and site by advancing the design drawings to approximately 30% complete. One of the reasons we are recommending this as a major milestone is it is recognized by the FTA as the maximum amount of design development allowed before receiving their formal

UCTC City of Kingston Intermodal Facility Facility Site Location & Conceptual Design Analysis

Final Report

Environmental Determination. The other reason we recommend this as a milestone is it is recognized in the industry as the appropriate level of completeness for "design-build" drawings, should that delivery model be considered for this project.

During this effort, the transportation mode requirements, design features, passenger and driver amenities, and the accessibility features will become more defined.

1. Prepare 30% complete design documents that will describe the size and character of facility systems and materials, including site development and demolition, landscaping, architectural, structural, mechanical, electrical, and utility services.
2. Prepare a code review drawing, showing exiting requirements, fire separations, etc. Arrange a meeting with the TAC and the code enforcement authority for a preliminary code review and general discussion of the project.
3. Prepare preliminary specifications that describe the materials and systems that will be used. Provide a notebook of manufacturers' information on the materials that will be included in the project. If the project utilizes a "design-build" approach, the specifications would need to be taken to 100% completion, including all "front end" project requirements.
4. Prepare a 30% construction cost estimate. Participate in discussions with the TAC to reconcile the conceptual cost estimate with the available construction budget. Any agreed-upon measures will be incorporated into the final construction documents. Identify potential items for bidding as alternates.
5. Participate in regular project and public meetings with the TAC to review the progress of design and solicit additional feedback.

Final Construction Documents

If the project utilizes the traditional "design-bid-build" approach, then this phase will be implemented. This phase will fully describe the materials and character of the building and site by advancing the design drawings to 100% complete. During this effort, the transportation mode requirements, design features, maintenance equipment, passenger and driver amenities, accessibility features, and sustainable design measures will become completely defined. These contract documents will be suitable and appropriate for competitive bidding and construction of the project.

1. Prepare a 100% construction cost estimate. Participate in discussions with the TAC to reconcile this cost estimate with the available construction budget. Finalize all items to be bid as alternates. Any agreed-upon refinements will be incorporated into the final construction documents before they go to bid.

UCTC City of Kingston Intermodal Facility
Facility Site Location & Conceptual Design Analysis

Final Report

2. Participate in regular project and public meetings with the TAC to review and complete the final design and solicit additional feedback.

Bid and Construction Phase Services will then bring the project through construction, occupancy, and final completion.