

TC Program

Program for the TC

Mission Statement: *The goal of the Chittenden County Transportation Authority (CCTA) Transit Center (TC) is to replace the inadequate Cherry Street transit station with a modern passenger facility that provides an improved customer and employee experience, meets both the short and long-term needs of CCTA and accomplishes these goals within budget and a short timeframe in order to address the immediate facility needs.*

CCTA is the public transit service provider in Chittenden, Washington, Franklin, Grand Isle, and Lamoille counties. Outside of Chittenden County, CCTA operates as the Green Mountain Transit Agency (GMTA). CCTA operates regular fixed-route bus service in the communities of Burlington, Essex, South Burlington, Shelburne, Williston, Winooski, and a portion of Colchester. LINK Express routes operate on corridors between Burlington and Montpelier, Middlebury, and St. Albans, and a commuter route connects Milton and Burlington.

CCTA's service operates on a "pulse" system. Pulse transit systems are common in smaller communities and typically operate out of a central area with vehicles meeting at fixed intervals. Routes are located and designed so that the cycle time for each route (the amount of time it takes to travel from the beginning of the route to the end and back, including any layover time) is the same or equal to some multiple of the pulse interval. Pulse transit minimizes transfer time between routes.

CCTA's pulse operation at the Cherry Street transit station currently comprises seven local routes (Essex Junction, North Avenue, Pine Street, City Loop, Riverside/Winooski, Shelburne Road, and Williston), five commuter routes (three LINK routes to Montpelier, Middlebury and St. Albans, plus Milton and Williston), and limited trips on three other routes (Neighborhood Specials, Lakeside Commuter, and the South Burlington Circulator).

Local routes generally provide service every half-hour throughout the day with three routes operating every fifteen minutes during the peaks. The LINK regional services operate two to four trips during each peak period, with two providing mid-day service and one providing evening service.



Because routes at the Cherry Street transit station operate on a pulse schedule, a separate berth is needed for each route. In addition to the space needed at the downtown hub for these operations, one spare berth is required for a “breakdown” bus. Expansion plans for the future indicate a need for five additional berths compared to present service.

The CCTA Transit Center (TC) must also provide room for future service expansion. CCTA ridership has grown by 63 percent over the ten year period from 1999 to 2009 and continues to grow. To ensure that the facility meets current and future needs, the facility should attempt to accommodate 21 bus berths, with the following breakdown: 15 active berths to accommodate current services [ten (10) local routes and five (5) regional routes]; five (5) berths for future expansion of services; and one (1) berth for an emergency back-up bus.

In order to provide for optimal operations and flexibility at the facility, the following design features are also desired:

- All berths must be long enough to accommodate a 40-foot bus with a bike rack deployed;
- Designated paths of travel between all berths, excluding the emergency backup berth, allowing passengers to access all berths and waiting area using an efficient path of travel; and
- Separating buses and private automobiles to the extent possible and reducing potential for conflicts between buses and other vehicles.

The proposed transit center should include the following amenities and design considerations:

- Passenger amenities:
 - Heating and Air Conditioning
 - Passenger Lounge with appropriate seating options
 - Ticket and information counter
 - Passenger Restrooms (Men’s & Women’s)
 - Coffee/Magazine/Snacks Vendor Kiosk (where possible)
 - Information kiosk panels
 - Nearby bicycle amenities
- Employee amenities and facilities:
 - Operations Manager’s Office (secure limited-access room where cash and tickets can be stored safely)
 - Work areas for employees that are separate and secured from public areas
 - Driver’s break room



- Driver's break room kitchenette
- Security desk with closed-circuit TV monitors
- Restroom facilities for male and female employees
- Mechanical room
- Electrical/Telephone/Data Closet
- Custodial closet
- General Storage

- Intelligent Transportation Systems (ITS):
 - CCTV system with digital recorders
 - Real-time dynamic monitors displaying bus schedules and status
 - Wi-Fi service

- Design Considerations:
 - Personal security with lighting, visibility, etc.
 - Vandal resistant and heavy-duty materials
 - High-durability industrial grade public restrooms
 - Passenger areas capable of being easily maintained

In addition to these amenities and design considerations, the program requires all future plans and land procurement to be compliant with all applicable local zoning requirements.

The following page details the approximate area needed for each of the amenities and facilities noted above. The estimated gross area likely required to accommodate this program is approximately 4,000 gross square feet.

**CCTA Transit Center
General Space Program**

	Qty.	Area (SF)	Ext. (SF)	Notes:
CUSTOMER/PASSENGER AMENITIES:				
1.01	1	1250	1250	[50 x 25 SF/Passenger]
1.02	1	100	100	Two (2) staff
1.03	2	200	400	[M=2T/2U/2S; W=4T/2S]
1.04	1	225	225	Coffee/Magazine Counter/Kiosk
Subtotal Net Area:			1,975	
	Qty.	Area (SF)	Ext. (SF)	Notes:
CCTA OPERATIONS SUPPORT SPACE:				
2.01	1	120	120	10' x 12' office
2.02	1	100	100	10' x 10' office
2.03	1	350	350	12 person; three (3) tables; 17'-6" x 20'
2.04	1	75	75	Sink, base & upper cabinets, micro.
2.05	1	85	85	One (1) staff and multiple monitors
2.06	2	145	290	[W=2T/2S ; M=1T/1U/2S]
2.07	1	80	80	
2.08	1	40	40	
2.09	1	25	25	
2.10	1	75	75	
Subtotal Net Area:			1,240	
Total Net Areas:			3215	
Grossing Factor:			1.25	Corridors, walls, shafts
Estimated Building Gross Area Program Requirement:			4,020	
Operations Area (Off Street):			60,000	

In addition to indoor space requirements outlined above, a generic off-street operations area has been developed that would suit bus berthing, bus circulation and employee vehicle operations. This generic footprint would consume roughly 60,000 SF (1.4 Acres), if off-street. Although the footprint could be configured in numerous layouts, a generic parallel berthing layout is provided in Figure 1 below. Depending on site specific configuration of ingress and egress, it should be noted that the off-street operational requirements of the site may be greater than 60,000 SF. Conversely, an on-street operations area, with shared right-of-way with vehicular traffic, would likely require less than 60,000 SF.

- Operations Area:
 - Four employee parking spaces for:
 - a facility service van,
 - two driver relief vehicles and
 - one supervisor vehicle
 - Two-way roadway lanes
 - Dynamic parallel berthing (21 spaces)
 - Island areas and curbside

Figure 1: Generic Dynamic Parallel Berthing Layout

