MacMillan Pier Transportation Center
Feasibility Study

FINAL DRAFT REPORT

January 6, 2006

MACMILLAN PIER TRANSPORTATION CENTER FEASIBILITY STUDY

FINAL DRAFT REPORT

PREPARED BY:

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.

IN ASSOCIATION WITH:

DOMENECH HICKS & KROCKMALNIC, INC.

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MACMILLAN PIER TRANSPORTATION CENTER FEASIBILITY STUDY

INTRODUCTION

The vision for the MacMillan Pier Transportation Center is to serve as a gateway for Provincetown and the Outer Cape by providing tourist and resource information and to serve as a linkage between the expanding ferry service, local transit services, intercity bus services and shuttle services to the Provincetown Airport.

Project Purpose

The purpose of the MacMillan Pier Transportation Center project is to improve traveler amenities and information for the users of the various public transportation services in the MacMillan Pier area of Provincetown. The information services at the Transportation Center are to capitalize on the synergies offered through co-location of tourism information, public transportation information and interpretive information regarding the town's natural attractions.

Project Need

Recent expansion of public transportation services in and around Provincetown is increasing the demand for transit-based amenities in the town.

Ferry Service Expansion

There are currently three operators offering seasonal passenger service between Provincetown and other Massachusetts locations which include:

- One daily round trip between Plymouth and Provincetown operated by Capt. John Boats open only during the summer season (the end of June to the beginning of September). The travel time is 1 hour 35 minutes
- Four to six daily fast ferry roundtrips (1 hour, 30 minute travel time) operate between Provincetown and Boston. These are operated by Boston Harbor Cruises and Bay State Cruise Company from late spring to early fall (May to October).
- The fast-ferry service is augmented during the summer by a slower (3 hour) and less expensive ferry that makes one

round trip each Saturday and Sunday between Boston and Provincetown, operated by Bay State Cruise Company.

Ridership on these ferry services has been growing with last years ridership estimated at 120,000 trips principally over the 21 week period from Memorial Day weekend to Columbus Day weekend. It is anticipated that in the future this ridership will continue to grow climbing to around 300,000 annually.

Upon arrival at Provincetown for these passengers, there is limited space for them to gather travel and tourist information and to stay out of inclement weather. This function is currently being facilitated by the Provincetown Chamber of Commerce in Lopes Square. Although the Chamber has been doing an excellent job of providing tourism and travel information, their small space does not meet the needs of the traveling public and many basic amenities are only being provided on an ad-hoc basis. This lack of central space for the growing number of ferry passengers is likely to become an increasing problem limiting growth for the ferry services. There is a clear need for a transportation center in easy walking distance from the ferry dock to serve this growing travel market.

Bus Service Expansion

There are currently three local bus routes providing service to the MacMillan Pier area and connecting to locations in Provincetown and Truro providing approximately 90,000 to 110,000 trips during the 21-week summer session. There are plans to expand service offerings as soon as next spring by providing a service connecting to other Outer Cape locations. This service expansion will increase the need for passenger amenities in the MacMillan Pier area as transit ridership will continue to grow.

The Cape Cod Regional Transit Authority (CCRTA) bus routes currently providing service to the MacMillan Pier area during the 21-week summer season, as can be seen in Figure 1, include:

- Provincetown/No. Truro Shuttle – This service which operates in conjunction with the Herring Cove Beach Service makes trips between Horton's Camping Resort in North Truro and MacMillan Pier. The service generally starts at 7:15 am and ends around midnight. The headways vary by time of day and day of the week but range between 30 minutes and 60 minutes.
- Herring Cove Beach Service - This route, operating as an extension of the Provincetown/North Truro Shuttle provides service to Herring Cove Beach and First Pilgrims Park generally operating between 8 AM and 8 PM with the service to the beach stopping a half hour after sunset.

- Airport/Race Point Beach Service – This shuttle service that operates between the Race Point Beach/Airport area and MacMillan Pier runs every 30 minutes during the summer season.

Figure 1
Existing CCRTA Bus Routes
Serving MacMillan Pier

Source: www.capecodtransit.org

Expansion of transit service by the Cape Cod Regional Transit Authority (CCRTA) will include the following service:

- Outer Cape FlexRoute Service – The FlexRoute is a hybrid service that incorporates a traditional transit bus service (with a defined route, schedule, and bus stops) and a "route deviation" concept that allows the bus to serve areas up to a mile from the defined route. This "route deviation" allows the service to reach more people and more places they want to go. This service will operate between MacMillan Pier and Orleans with service also to Harwich and Brewster. During the non-summer months the service will operate on 60 minute headways. During the 21-week summer season the service will terminate in North Truro with coordinated transfers to the Provincetown/North Truro Shuttle. The service will oper operating on 30 minute headways during the summer and hourly during the winter. The service in Provincetown will operate solely on a fixed route but will provide connectivity that currently is not possible via bus to Outer Cape locations south of Provincetown and Truro.

Improved accommodate of existing tourist-focused amenities.

Tourism is an important part of the Provincetown economy. It is therefore important for the town to provide tourist-based amenities to ensure that Provincetown remains an attractive place to visit. Currently the configuration of tourist-focused amenities is principally centered on visitor arrivals via automobile or motor coach. This includes, but is not limited to, the Municipal Parking Lot (MPL), the restrooms located adjacent to the MPL, the motor coach and taxi parking spaces located between the MPL and the bathroom building. Also important is the nearby Chamber of Commerce that provides tourist information as well as ferry tickets. All of these tourist amenities are being provided in locations that are not necessarily obvious to visitors. There is an opportunity to enhance visitors experience by providing all of these services in central location that serves as a Gateway to town in a place that clearly "says" that you have arrived.

Interpretive Exhibits for Provincetown's Natural and Cultural Resources

The Provincetown area is rich in natural and cultural resources. In fact it has been listed as the town in Massachusetts with the greatest density of rare species by the Nature Conservancy and the Massachusetts Natural Heritage and Rare Species Program. Natural resources are Provincetown's greatest attraction evident through the existence of the Cape Cod National Seashore, the nearby (off shore) Gerry E. Studds Stellwagen Bank National Marine Sanctuary (Stellwagen Bank NMS) and the Provincetown Center for Coastal Studies.

The Cape Cod National Seashore stretching from Provincetown to Chatham comprises 43,608 acres of shoreline; salt marshes; clear, deep, freshwater kettle ponds; uplands; as well as a great diversity of species supported by these habitats. Lighthouses, a life-saving station, dune shacks, Moderne and Cape Cod-style houses, cultural landscapes, and wild cranberry bogs provide a glimpse into Cape Cod's past and continuing lifeways. The Seashore offers six swimming beaches, eleven self-guiding nature trails, and a variety of picnic areas and scenic overlooks

Stellwagen Bank NMS is located off shore in an 842 square mile area that is approximately 25 miles east of Boston; three miles north of Provincetown and three miles south of Gloucester. Stellwagen Bank is the centerpiece of the Sanctuary that also includes all of Tillies Bank (situated to the northeast of Stellwagen Bank) and southern portions of Jeffreys Ledge (situated to the north).

Stellwagen Bank is a shallow, glacially-deposited, primarily sandy feature, 18.75 miles long and roughly 6.25 miles across at its widest

point. Stellwagen Bank was designated as a sanctuary for its historical importance as a fishing ground and its more recent fame as a whale watching destination, many of which depart from Provincetown.

The Provincetown Center for Coastal Studies is dedicated to protecting marine mammals and coastal ecosystems through public education, scientific research, and conservation programs. Since its founding in 1976, the private, non-profit has become internationally renowned for its whale research and rescue programs, and is a leading authority for science-based resource management policies in Massachusetts.

In addition to these resources a major and important industry in the town is centered on whale watches that take advantage of the nearby marine resources. With the focus of the town on regional natural resources there are limited convenient opportunities for visitors to learn about these resources. Although the Cape Cod National Seashore has exhibits at Salt Pond, there is no indication or presence of the Seashore in the downtown area where many visitors first arrive.

Similarly the newly established Stellwagen Bank NMS has only a small visitor exhibit in Provincetown. In fact, even though Provincetown is the closest town to the sanctuary, exhibits and offices are located in Gloucester, Boston and Scituate.

There is a need for exhibit space in downtown Provincetown for these two parks to reach more people in a location where people are. In addition to the park exhibits additional cultural exhibits are lacking in a convenient location that tells visitors about the rich and varied history of Provincetown.

Summary

A transportation center in the MacMillan Pier area that provides a range of tourist and traveler information can meet the needs listed above. By integrating interpretive exhibit space into the building the Transportation Center can be enhanced to provide a vibrant focal point or gateway to Provincetown, its harbor and its downtown. Such a center will maintain and increase the focus and importance of transit and non-automobile options on the town's development, growth and economy.

DEFINITION OF FACILITY REQUIREMENTS

The requirements for the MacMillan Pier Transportation Center (The Transportation Center) were identified through discussions with anticipated and potential users of The Transportation Center. During these discussions, which consisted of both in-person and phone conversions, stakeholders identified facility requirements and desired attibutes. It was acknowledged by all parties that due to both space and operating fund limitations there may be some compromises required between attributes of The Transportation Center that are desired and those that are feasible. Both required and desired parameters will be noted in the following sections.

Public Transit Service

There are currently three CCRTA bus routes providing service to the MacMillan Pier area as previously discussed. In addition to these transit services the Plymouth and Brockton (P&B) operates two round trip bus trips out of Provincetown during the off-season, and five round trips during the summer. Additionally tourist motor coaches currently load and unload at the designated bus spaces near Lopes Square. Currently there are 5 spaces capable of accommodating motor coaches, 2 spaces for the P&B motor coaches and 2 smaller spaces for the 30 foot CCRTA buses.

At a minimum The Transportation Center will need to accommodate the same 9 spaces. However, with the increased transit services anticipated in Provincetown additional spaces will be planned for a total of 12 spaces as allocated below:

- 5 for CCRTA buses (30 foot buses),
- 5 for tourist motor coaches (45 foot), plus
- 2 for P&B buses (45 foot)

Transit Passenger Amenities

Currently there are limited transit passenger amenities in the Lopes Square/MacMillan Pier area. There is a 900 square foot restroom building which contains approximately 10 stalls (five men and five women). The nearby Chamber of Commerce provides information regarding bus services and schedules. One of the ferry companies also sells tickets from the Chamber of Commerce office. This office can provide shelter for bus passengers when weather is inclement, however this space is limited and not open all the time.

The Transportation Center will provide restrooms and a waiting area. The waiting area may also include ticket vending machines, automated bus/ferry arrival information, schedule information and other passenger amenities. Additionally bike lockers or bike racks will also be provided.

Vehicular Access

Vehicular access to The Transportaiton Center will be required to accommodate the drop-off/pick-up of passengers and taxi/jitney service. It would be preferable to have dedicated taxi spaces and a dedicated parking or curb space to accommodate drop-off/pick-up access.

Automobile Parking

There are currently 300 spaces in the Municipal Parking Lot (MPL). This lot is a major revenue generator on which the town relies, therefore there should be no net loss of automobile parking spaces in the MPL as a result of The Transportation Center even if a revised circulation pattern results in a change in lot configuration. There will not be any automobile parking spaces planned specifically for The Transportation Center.

Municipal Parking Lot

Potential Patrons

The principal potential patrons of The Transportation Center include the following:

- Ferry service passengers arriving or departing at MacMillan Pier (120,000 last year, projected to grow to 300,000),
- CCRTA Transit Service passengers (80,000 last year),
- P&B Intercity Bus passengers,
- Tourists groups arriving by motor coach,
- Visitors to the Stellwagen Bank NMS exhibits, and
- Whale watch patrons before and after their excursion.

The "waiting area" for the transportation center should be sized to accommodate the number and variety of uses for The Transportation Center that will occur primarily during the 21 week summer season.

Pedestrian Access

Pedestrian access to The Transportation Center is an important aspect of design. Patrons of The Transportation Center will arrive in two primary ways, either from a bus parked at one of the designated spaces, or by foot principally walking from the ferry dock farther down MacMillan Pier. As the volumes of patrons arriving by foot is projected to be equal or greater than those arriving by bus it is essential that the pedestrian access to The Transportation Center is well marked, clear from obstructions and clear from obvious conflicts with vehicles.

Bicycle Access/Accommodations

Since bicycle transportation is an important transportation mode during the summer season in Provincetown it is equally important to include bicycle amenities at The Transportation Center. Such amenities may include outdoor bicycle racks (under cover if possible), bicycle lockers, and information regarding area bicycle paths, traveling with bicycles, and local repair shops.

Pedestrian Environment

Potential Users

The users (operators) of the facility include the following:

- Cape Cod Regional Transit Authority
- Stellwagen Bank NMS
- Provincetown Chamber of Commerce
- Cape Cod National Seashore
- Provincetown Center for Coastal Studies
- Provincetown Business Guild
- Ferry Service Operators

Meetings and discussions were conducted with many of the above listed organizations to gain insight into their projected interest and involvement in The Transportation Center. These discussions were conducted primarily to gain a better understanding of space needs each potential user may require. These discussions were exploratory in nature and no functional or financial commitments were made. However, the results of these discussions allowed estimates of space functionality and allocations to be made.

During these discussions it was suggested that a business (potentially year-round) may be required in The Transportation Center in order to provide extra presence and/or security in the building. The early suggestion was a retail fish market that could work with the commercial fisherman anchored on MacMillan Pier. Whether a retail fish market is an appropriate and financially viable option can be assessed during a later stage, however space for some retail type operation has been included in the space program for The Transportation Center.

The following table provides the functions and space requirements to be planned for The Transportation Center.

Table 1
MacMillan Pier Transportation Center Facility Requirements

Primary User	*Space Function*	*Minimum (Sq. Feet)*	*Maximum (Sq. Feet)*	*Notes*
Transportation Center	waiting area	1,000	1,000	
	bathrooms	400	1,000	
	transportation supervisor office	150	150	
	ticket vending area	0	150	Could be combined with bookstore function
		1,550	**2,300**	
Stellwagen Bank NMS	exhibit space	1,000	2,000	
	office	150	150	
		1,150	**2,150**	
Chamber of Commerce	Visitor/Tourist Info.	**150**	**150**	
Cape Cod National Seashore	park orientation/ information	**150**	**150**	
Unallocated and/or Shared Space (Stellwagen, Provincetown Center for Coastal Studies, or contracted book store operator)	bookstore/shop/sales area	200	700	
	Meeting/classroom space	300	700	
	storage	150	150	
	office	150	150	
		800	**1,700**	Optional space - dependant upon business plan for The Transportation Center
Retail Space (i.e. fish market or other commercial function)		**1,000**	**2,000**	Optional space - dependant upon business plan for The Transportation Center
TOTAL		**4,800**	**8,150**	

Hours and Staffing

It is projected that The Transportation Center will need to be open, at a minimum, during the operating hours of the transit and ferry services. Since transit services generally operate during the 18 hour period between about 6 AM and Midnight, the Transportation Center ought to be open during the same period. Although it is preferred that the building be open to transit passengers during that period, the

entire facility would not need to be open and staffed the entire period. The hours of operation for the retail and exhibit functions could be less.

In any event, for passenger safety and information purposes, it is advisable that at least one staff person be on duty to oversee transportation center functions during all operating hours of the Transportation Center. It is likely that staff requirements will be greater for the retail and exhibit space during the day in the height of the summer season and can be flexible depending upon usage and the final mix of uses/tenants in the Transportation Center.

ALTERNATIVES IDENTIFICATION

Alternative Site Location Criteria

Sites for the Transportation Center were identified and considered for preliminary assessment and evaluation. The primary criterion for the site is to be within easy walking distance of the ferry docking location. It is generally considered that the maximum walking distance from a transit (ferry) stop is ¼ of a mile. This would limit possible sites to MacMillan Pier and the block bound by Ryder Street Extension, Commercial Street, and Lopes Square. A site any farther than that would not serve the ferry passengers.

In addition to the need to be close to the ferry dock, the site needs to be located where there is sufficient space and access for transit buses, motor coaches and taxis to stop nearby for passengers to load and unload.

Alternative Sites

The combination of the two critical transportation criteria limits the possible location for the Transportation Center. Two sites were identified, one land-side location (just north of the MPL) and one water-side location (just south of the MPL). The following sections will provide detail regarding the sketch plans developed for each of these sites.

The purpose of developing these sketch plans is to identify the feasibility of each alternative, including functionality, permitting and costs. However, it is possible, and likely, that many of these details will change as planning and design for the Transportation Center progresses.

Land-Side Alternative

The Land-Side Alternative is on the existing town-owned parcel where the existing restroom building is located just north of the MPL. Graphics showing the Site Plan, Building Sketch Plan and the Circulation Plan are shown on following pages in Figures 2, 3, and 4 respectively.

Land-Side Alternative Site

Site Plan

The parcel is the existing site of the restrooms and sewer vacuum station and is bound by a right-of-way to the north and east that provides access to retail buildings on Commercial Street, Ryder Street

extension on the west, and existing bus parking on the south. This site is just over a ¼ mile from the ferry dock on MacMillan Pier.

The Transportation Center would be sited on the same, although expanded, footprint of the existing 900 square foot restroom building immediately adjacent to the existing sewer vacuum station. The foot print of the two-story building would maintain the existing curb with the front door in the general location of the existing restroom building.

The site would allow for parking of six motor coaches and three 30-foot transit buses at the curb in front of the building in diagonal spaces. Pedestrian access from the ferry dock and Lopes Square would be along the harbor side of the existing Chamber of Commerce building. Due to the size requirement of the building there would be limited opportunity for outdoor benches and/or landscaping.

Sketch Plan

Two sketch plans have been developed for the layout of the Transportation Center building. One alternative for the interior layout of the building is provided. As design on The Transportation Center progresses and space requirements become more defined alternative interior configurations may be developed. However it is unlikely that the footprint of the building can change substantially.

The two building sketch plans differ in that they accommodate the maximum and minimum space requirement previously identified to accommodate the planned functions. The larger of the two layouts assumes that the building will be designed and built in a manner that makes it immediately adjacent to the existing sewer vacuum station. This would require modifications to the access of that building, however at this time, it is unclear whether such modifications are possible or feasible.

The minimum alternative results in a 6,000 square foot building, which accommodates the functions previously identified in the minimum requirements. It would accommodate a first floor waiting lobby for passengers with limited room for displays and/or visitor information. A ticket sales facility could be located in a portion of the area designated for the waiting room. The first floor would also include small bathrooms, a supervisor's office and a storage room. Upstairs the building could be configured in a multitude of ways to facilitate exhibit space, retail space and a classroom/meeting room. This alternative would maintain an access way between the Transportation Center and the sewer vacuum station and a small overhang over the sideway in front of the buses berths.

The maximum alternative results in a 9,500 square foot building, which accommodates the functions previously identified as maximum requirements. It would accommodate a larger first floor waiting area, larger bathrooms and a supervisor's office. Upstairs would include a 3,170 square foot exhibit/bookstore space, 280 square feet of display space and 1,890 square feet of retail space. This layout would include a 30 foot overhang over the front of the bus berths and the elimination of an existing access to the sewer vacuum station.

Circulation Plan

The land-side alternative would require modifications to vehicular circulation in the project area. This alternative proposes establishing the roadway between the MPL and the Transportation Center as a one way facility restricting movements to the easterly direction (toward Lopes Square). This would minimize conflicting movements between buses, cars, and pedestrians in the area. The entrance to the MPL would be relocated to the western side of the lot with both an entrance and exit. These traffic changes would eliminate conflicts between vehicles operating and different direction on streets with limited width. The result would be that all vehicles (buses and autos) access the MPL, Fisherman's Pier, and the Transportation Center via Ryder Street Extension.

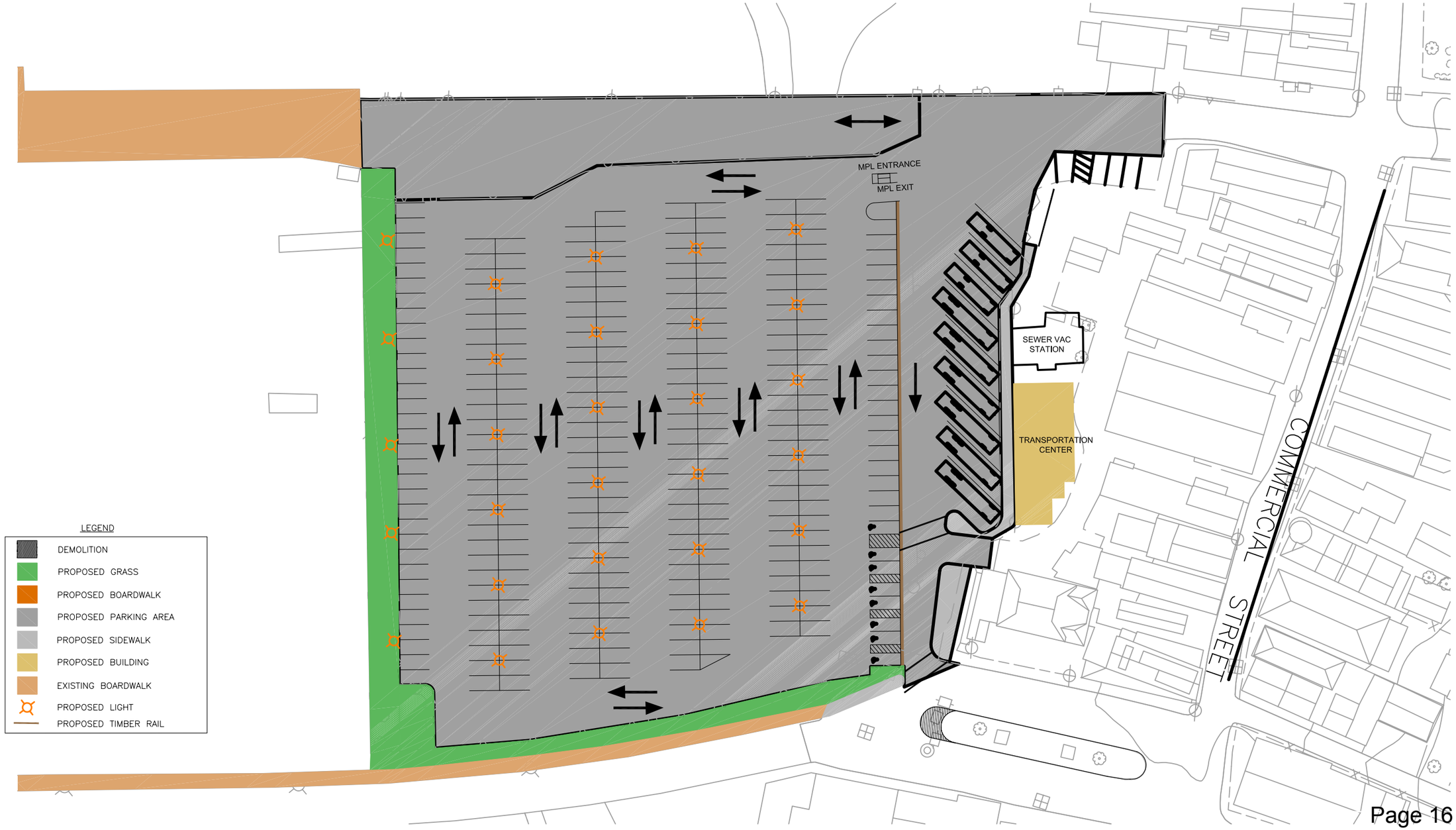
An altnernative that examined keeping circulation in the existing direction (toward Ryder Street) was examined. Due to the parking space requirements (15' wide) and turning attributes of motor coaches this circulation pattern resulted in a reduction of bus parking spaces than what is currently provided. Due to this loss in bus parking, keeping the existing circulation pattern was not considered feasible.

The MPL would need to be re-paved and striped so that the loss of parking spaces would be limited. In addition new lighting could be provided that would limit the impact of MPL lighting to the neighboring community. This alternative would result in the loss of approximately 8 spaces. Pedestrian access to the Transportation Center would be along an extension of the existing boardwalk leading from MacMillan Pier. The walkway would pass in front of the door to the existing Chamber of Commerce visitor information center before leading to the front door of the Transportation Center.

Ancillary Improvements

In addition to The Transportation Center building and the bus/transit accommodations improvements in the project area will be necessary. They include the following:

- **Lighting** – Lighting improvements would be made both surrounding The Transportation Center and the MPL. This can be done in a way that will maintain security lighting in the area but eliminate some of the existing light pollution. It is presumed that 15-foot ornamental light poles would be installed throughout the MPL and the Transportation Center area.
- **Sidewalks** – Sidewalks and walkways in the area could be improved incorporating some of the same paver treatments as was recently done at Lopes Square through out the area.
- **Bicycle Accommodations** – Bike racks/lockers would be installed where possible near The Transportation Center. There is limited space near the building so the specific location of these accommodations will need to be determined during the design process.
- **Landscaping** – Additional landscaping would be added to the green space between the MPL and the water. Due to the limited space around The Transportation Center, opportunities for additional landscaping are limited.
- **Guardrail** – The existing metal guardrail surrounding the MPL would be replaced with a newer timber guardrail or bollard system that would be more consistent with design treatments of MacMillan Pier.
- **Lopes Square** – In order to accommodate cars and buses turning movements modifications to the island in Lopes Square would be necessary. These modifications would be limited to shortening the island on the southern side.
- **Accessibility** – General accessibility in the MPL/Transportation Center area would be improved by ensuring that all improvements are made in compliance with the Americans with Disabilities Act. Such improvements would include, but not be limited to curb cuts, building elevators,



LAND - SIDE ALTERNATIVE

292 PARKING SPACES
8 HANDICAP SPACES
3 30' BUS SPACES
6 45' BUS SPACES

Figure 1

NOTE: MINIMUM ALTERNATIVE BUILDING FOOTPRINT SHOWN

0 30 60 150 FEET

VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER
MACMILLAN PIER TRANSPORTATION CENTER FEASIBILITY STUDY
CAPE COD COMMISSION
OMNI CONTRACT NO. DTRS57-01-D-30004

ISSUE	DATE	DESCRIPTION	BY	CHK	APP

PB [illegible]
PROJECT MANAGER DATE:

VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER
APPROVED BY:
PROJECT MANAGER: DATE:

HORIZ. SCALE: | DESIGN BY: | DRAWN BY: | CHKD. BY:
VERT. SCALE:
DATE: DEC. 23, 2005

PLAN NO.
SHEET
ISSUE

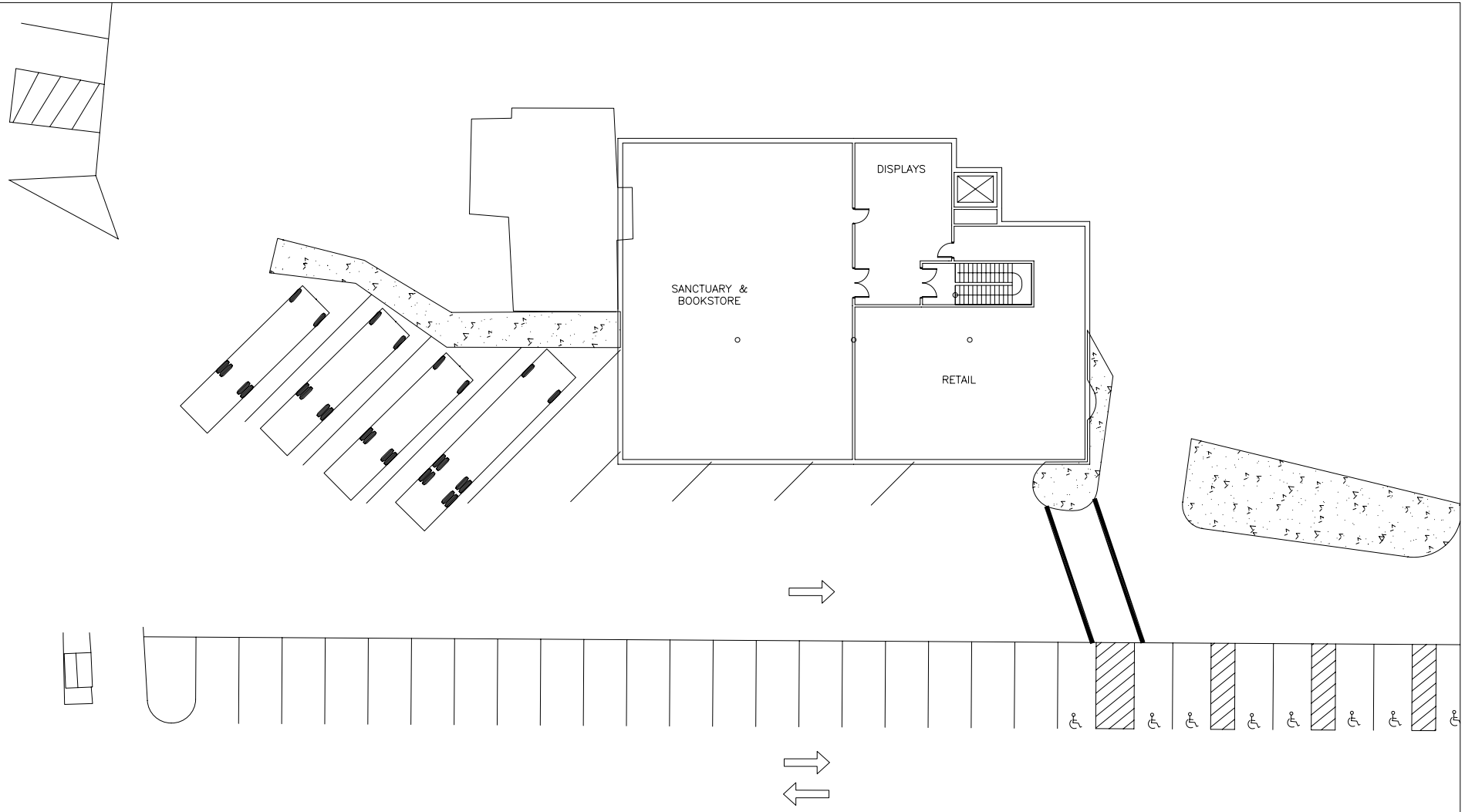


Figure 2

DOMENECH HICKS & KROCKMALNIC ARCHITECTS

McMILLAN PIER TRANSPORTATION CENTER

LANDSIDE MAXIMUM ALTERNATIVE

0 10' 20' 40'

NOT TO SCALE 12/22/2005

SECOND FLOOR - 6,350 SF

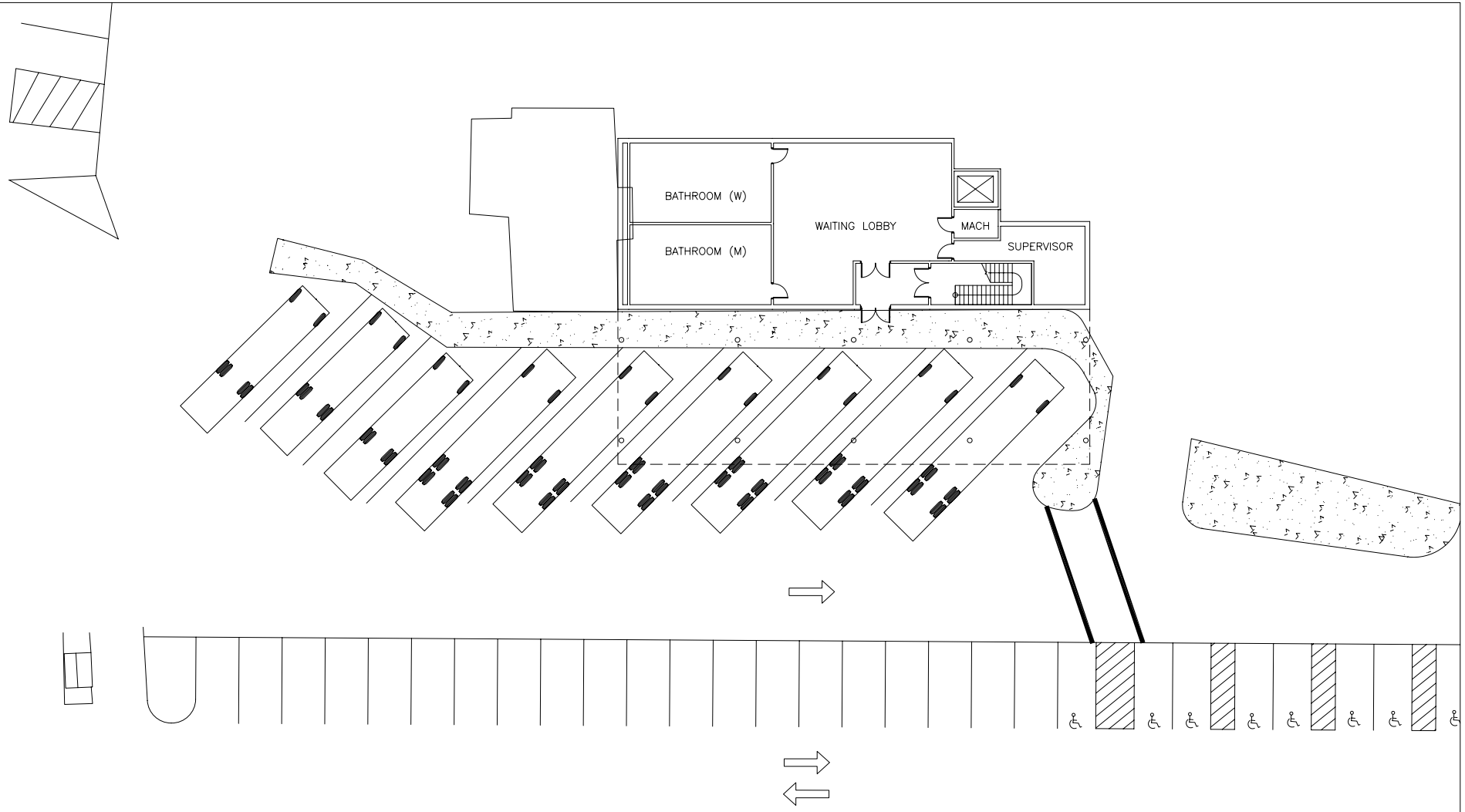


Figure 3

DOMENECH HICKS & KROCKMALNIC ARCHITECTS

McMILLAN PIER TRANSPORTATION CENTER

LANDSIDE MAXIMUM ALTERNATIVE

0 10' 20' 40'

NOT TO SCALE 12/22/2005

FIRST FLOOR - 3,150 SF

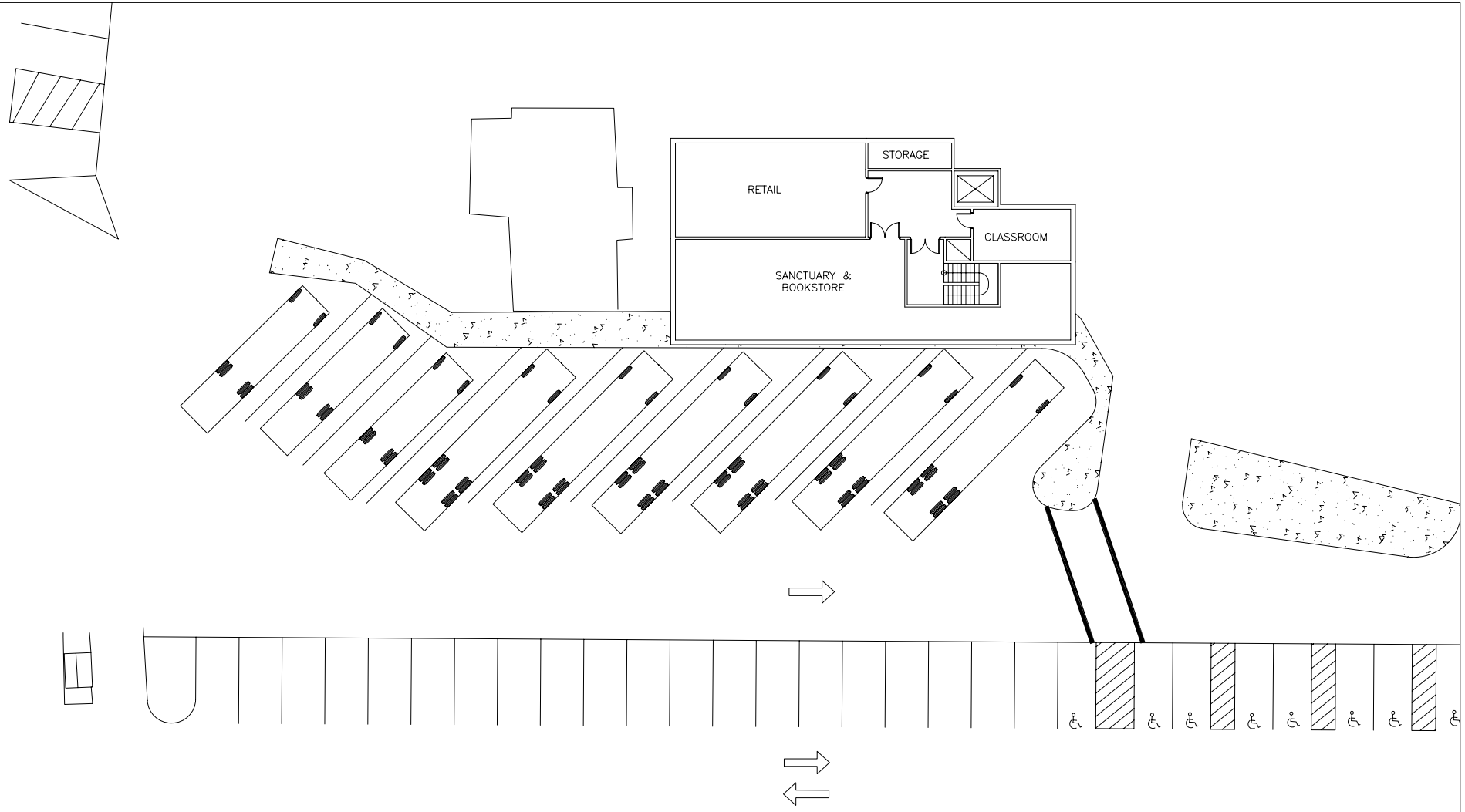


Figure 4

DOMENECH HICKS & KROCKMALNIC ARCHITECTS

McMILLAN PIER TRANSPORTATION CENTER

LANDSIDE MINIMUM ALTERNATIVE

0 10' 20' 40'

NOT TO SCALE 12/22/2005

SECOND FLOOR - 3,250 SF

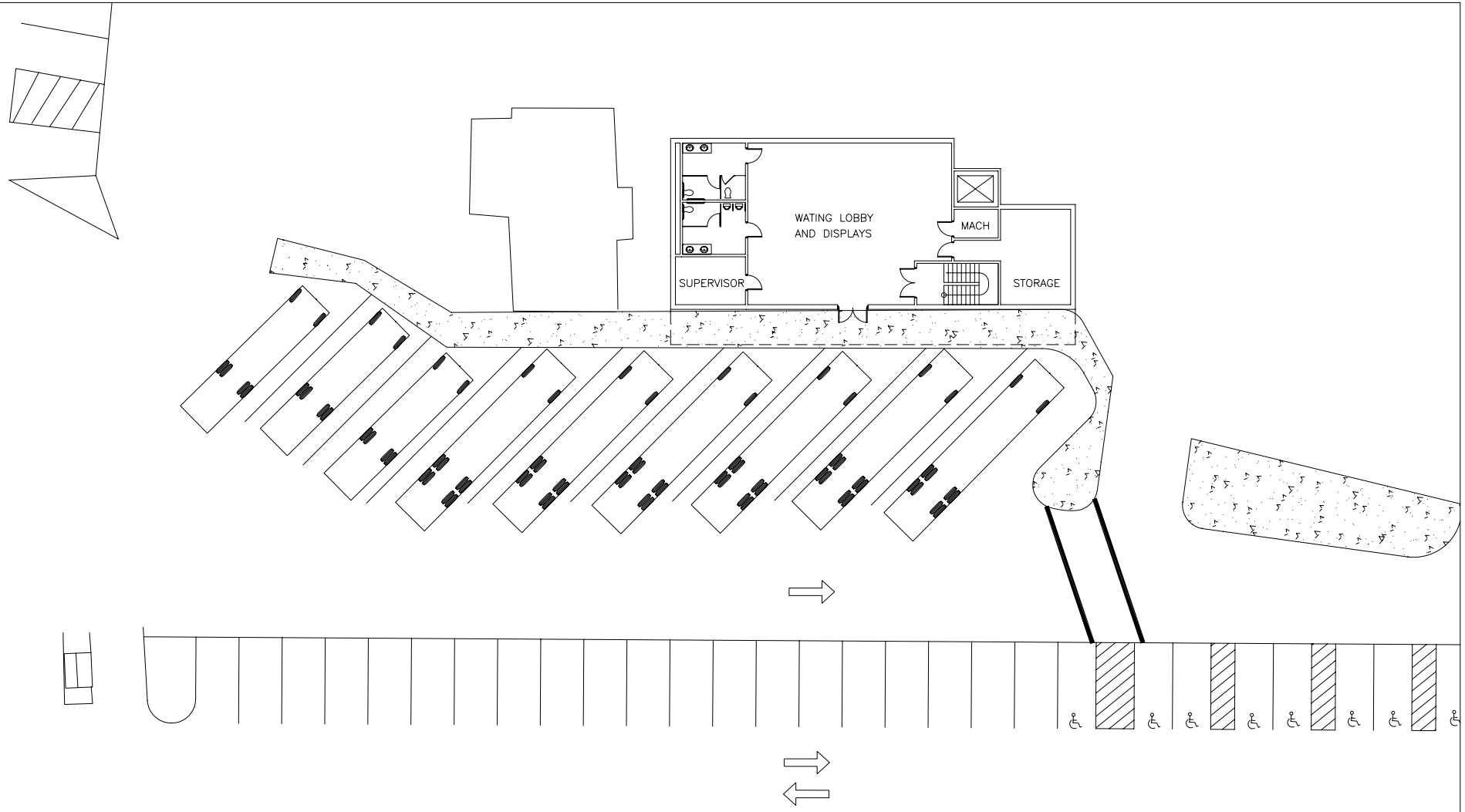


Figure 5

DOMENECH HICKS & KROCKMALNIC ARCHITECTS

McMILLAN PIER TRANSPORTATION CENTER

LANDSIDE MINIMUM ALTERNATIVE

0 10' 20' 40'

NOT TO SCALE 12/22/2005

FIRST FLOOR - 2,750 SF

LANDSIDE MAXIMUM ALTERNATIVE
FRONT ELEVATION

LANDSIDE MINIMUM ALTERNATIVE
FRONT ELEVATION

Figure 6

McMILLAN PIER TRANSPORTATION CENTER
LANDSIDE ALTERNATIVE

0 10' 20' 40'

12/22/2005

Figure 7: Land-side Alternative Circulation Plan

Water-Side Alternative

The Water-Side Alternative is located on a pier over the water in the area between the southeastern corner of the MPL and the northwestern side of MacMillan Pier. Graphics showing the Site Plan, Building Sketch Plan and the Circulation Plan are shown on following pages in Figures 5, 6, and 7 respectively.

Water-Side Alternative Site

Site Plan

The building site is located over what is said to be a tidal area of Provincetown Harbor adjacent to MacMillan Pier and the MPL. The site is approximately 1/8 mile from the ferry dock.

The Transportation Center would be sited on a newly constructed pier over water at the corner of the MacMillan Pier and the MPL. The size of the pier would be limited to the footprint of the Transportation Center and the adjacent boardwalks. The one story building would be situated to allow parking of eight (8) 45-foot motor coaches and three 30-foot transit buses at the curb in front of the building in diagonal spaces. The buses would remain on the existing bulkhead and would not travel onto the new pier. Pedestrian access from the ferry dock and Lopes Square would be along the existing MacMillan Pier boardwalk, while bus passengers would be able to access the Transportation Center directly from the bus berths. Outdoor waiting space including benches could be included on the deck surrounding the building, the covered area near the bus berths and/or on the site of the existing green space located adjacent to the MPL along the water. In addition, the existing restroom building could be demolished and in place a small pocket park could be established.

Sketch Plan

Two sketch plans have been developed for the layout of the Transportation Center building. They were developed to accommodate the minimum and maximum planned functions.

The minimum alternative results in a 5,050 square foot building, which accommodates the functions previously identified in the minimum requirements. All functions would be accommodated on a single floor with separate entrances for the waiting area, exhibit space and retail space. In addition to these areas, the building would include a transportation supervisor's room, and meeting room/class room space. The building would be surrounded by an observation

deck on the water side and a covered boardwalk running the length of the bus berths.

The maximum alternative results in an 8,500 square foot one-story building, which accommodates the functions previously identified as maximum requirements. It would accommodate all the spaces included in the minimum alternative but in a size that is preferred by The Transportation Center's potential users.

The arrangement of the spaces within the building could be refined and configured during future design phases to match with the needs identified by the ultimate users of the facility.

Elevation drawings have been developed for both the minimum and maximum alternatives. Since there is little difference in the look of the building between the two alternatives beside the length of the building, two different perspectives have been developed since the building will be equally visible from both sides.

Water-Side Alternative Site (from MacMillan Pier)

Circulation Plan

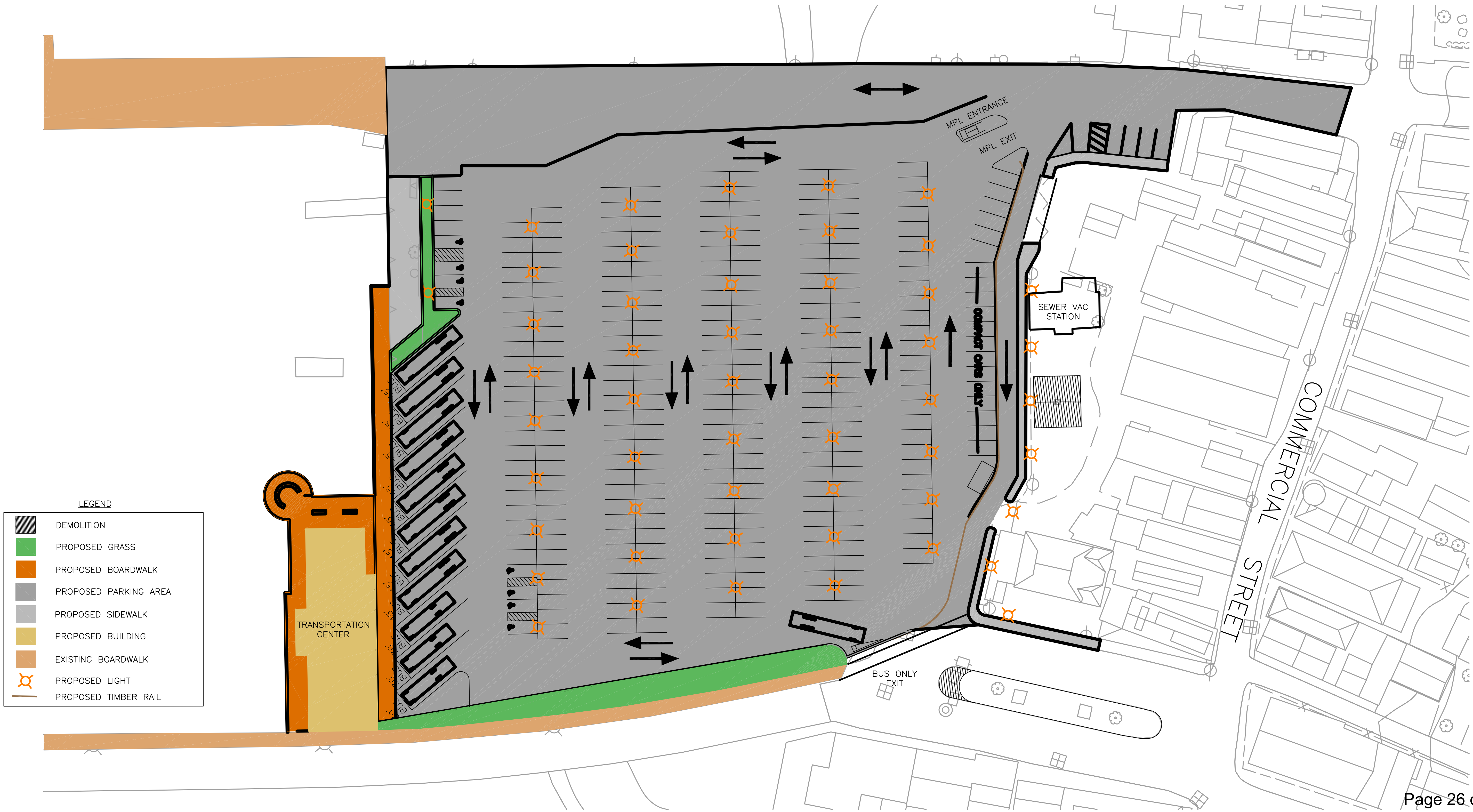
The water-side alternative would require modifications to vehicular circulation in the project area. This alternative proposes establishing a one way road along the existing curb line in front of the existing restroom building. This roadway would allow cars that are not entering the MPL a place to exit the area if no space is available in the MPL. Buses and cars would enter the MPL and access The Transportation Center via the end of Ryder Street Extension through a relocated entrance gate. All auto traffic would exit at this same location. Bus traffic could exit at one of two locations, either onto MacMillan Pier through a bus only gate immediately adjacent to the Transportation Center, or through a bus-only gate located at the existing MPL entrance gate.

If this revised circulation plan (coming from Ryder Street) is not acceptable due to off-site issues, the parking lot layout could be reconfigured to allow access from Lopes Square to remain. The result of this change would be that the bus berths would need to be shifted away from MacMillan Pier resulting in fewer bus berths directly in front of The Transportation Center. This design detail can be decided during the project's design phase as either circulation pattern does not impact the overall cost or feasibility of The Transportation Center.

This circulation plan would minimize conflicting movements between buses, cars, and pedestrians in the Lopes Square area. Pedestrian access to The Transportation Center would be primarily

from the MacMillan Pier and much of the vehicular traffic would be able to enter and exit via Ryder Street Extension, thereby minimizing conflicts.

The MPL would need to be re-striped so that parking space loss would be limited. This layout and circulation plan would result in the loss of 23 out of the original 300 MPL spaces.



VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER

MACMILLAN PIER TRANSPORTATION CENTER FEASIBILITY STUDY
CAPE COD COMMISSION
OMNI CONTRACT NO. DTRS57-01-D-30004

WATER - SIDE ALTERNATIVE A

Figure 8

277 PARKING SPACES
8 HANDICAP SPACES
3 30' BUS SPACES
8 45' BUS SPACES

0 30 60 150 FEET

NOTE: MINIMIUM ALTERNATIVE BUILDING FOOTPRINT SHOWN

ISSUE	DATE	DESCRIPTION	BY	CHK	APP

PARSONS BRINCKERHOFF

PROJECT MANAGER DATE:

VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER

APPROVED BY:

PROJECT MANAGER: DATE:

HORIZ. SCALE:
VERT. SCALE:
DATE: DEC. 23, 2005

DESIGN BY: DRAWN BY: CHKD. BY:

PLAN NO.
SHEET
ISSUE

WATER - SIDE ALTERNATIVE B

Figure 9

277 PARKING SPACES
8 HANDICAP SPACES
3 30' BUS SPACES
8 45' BUS SPACES

NOTE: MINIMUM ALTERNATIVE BUILDING FOOTPRINT SHOWN

VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER
MACMILLAN PIER TRANSPORTATION CENTER FEASIBILITY STUDY
CAPE COD COMMISSION
OMNI CONTRACT NO. DTRS57-01-D-30004

ISSUE	DATE	DESCRIPTION	BY	CHK	APP

PB PARSONS BRINCKERHOFF
PROJECT MANAGER DATE:
HORIZ. SCALE: DESIGN BY: DRAWN BY: CHKD. BY:
VERT. SCALE:
DATE: DEC. 23, 2005

VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER
APPROVED BY:
PROJECT MANAGER: DATE:
PLAN NO. ISSUE
SHEET

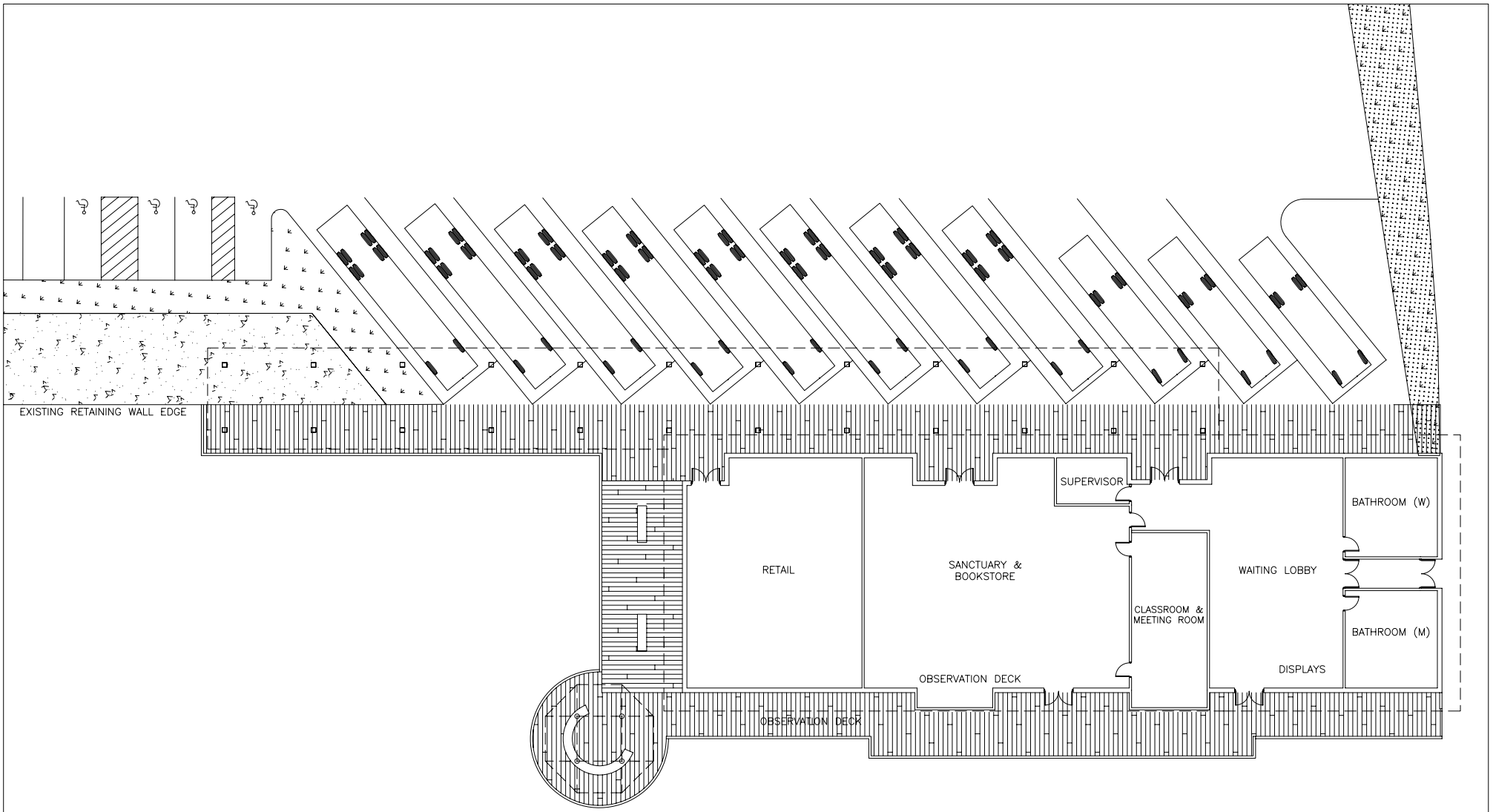


Figure 10

DOMENECH HICKS & KROCKMALNIC ARCHITECTS

McMILLAN PIER TRANSPORTATION CENTER

WATERFRONT MAXIMUM ALTERNATIVE

0 10' 20' 40'

NOT TO SCALE 12/22/2005

FIRST FLOOR - 8,500 SF

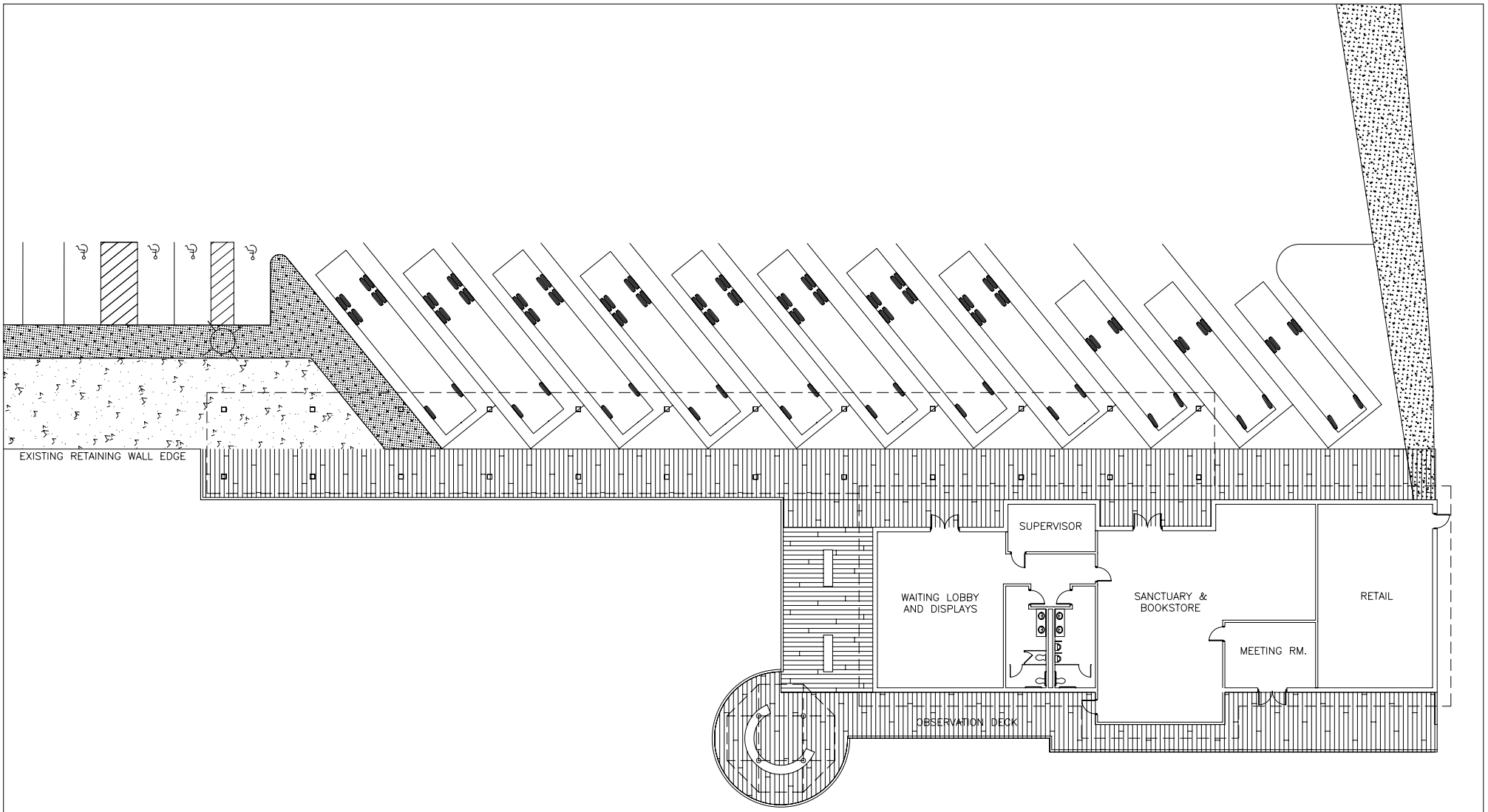


Figure 11

DOMENECH HICKS & KROCKMALNIC ARCHITECTS

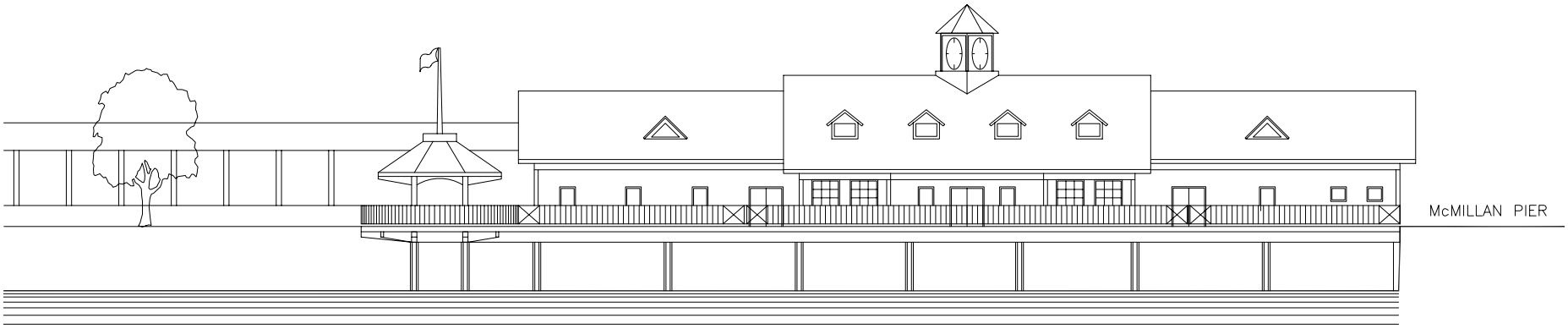
McMILLAN PIER TRANSPORTATION CENTER

WATERFRONT MINIMUM ALTERNATIVE

0 10' 20' 40'

NOT TO SCALE 12/22/2005

FIRST FLOOR - 5,050 SF



WATERFRONT MAXIMUM ALTERNATIVE
WATERSIDE ELEVATION

WATERFRONT MINIMUM ALTERNATIVE
LANDSIDE ELEVATION

Figure 12

McMILLAN PIER TRANSPORTATION CENTER
WATERSIDE ALTERNATIVE

0 10' 20' 40'

12/22/2005

Figure 13: Water-side Alternative Circulation Plan

ALTERNATIVES EVALUATION

The identified alternatives have different attributes that would result in a different set of impacts and benefits depending on which site is selected. The following section provides a summary of the issues to be addressed regarding the selection of a preferred site for The Transportation Center.

Transportation System Attributes

Attributes of the Transportation Center related to the functionality and connectivity to transit services and the local transportation network are of primary importance.

Transit

Both sites allow for the nearby parking of buses (motor coaches an transit buses). The land-side alternative only accommodates 9 bus berths, while the water-side alternative accommodates 11 to 12 bus berths, the amount identified as would be needed in the future. Both alternatives are within the preferred ¼ mile of the ferry dock although the water-side alternative is located about twice as close. Neither alternative was able to accommodate taxi/jitney waiting areas adjacent to The Transportation Center without sacrificing parking spaces within the MPL. However, as the design is refined for both The Transportation Center and the accompanying parking and circulation changes it may be possible to make some provisions for taxi/jitneys waiting spaces

Traffic and Parking

The goal of the sketch plan for the parking and circulation is to accommodate the desired bus parking, maintain the existing number of parking spaces within the MPL and to minimize potential bus/auto conflicts and vehicle/pedestrian conflicts.

The Land-Side Alternative *would result in the loss of approximately eight (8) parking spaces within the MPL* and would minimize traffic conflicts in the area by the shifting the MPL entrance to the west side of the lot and keeping all traffic entering the MPL and Transportation Center along Ryder Street Extension. There is little potential for providing mitigation for any transportation-related adverse affect of the project since there is limited space in the area with which to improve parking capacity or circulation.

Potential conflicts between vehicles and pedestrians would be improved slightly by keeping the predominant pedestrian flow away from the area where buses back up and narrowing the crosswalk area in front of the Chamber of Commerce building. As mentioned previously, there is little space near the building to accommodate bike racks/lockers. Although it is considered an essential attribute of the design the bike facilities may need to be located away from the building, such as on the other side of the sewer vacuum station.

The Water-Side Alternative *would result in the loss of approximately 23 parking spaces within the MPL* and would minimize traffic conflicts in the area by the shifting the MPL entrance to the west side of the lot and keeping all traffic entering the MPL and Transportation Center along Ryder Street Extension. The opportunities to mitigate the loss of parking spaces are limited although some options exist for consideration. These mitigation measures could include installation of metered parking on the site of the existing bathroom building, obtaining rights to incorporate MPL/Transportation Center access from a portion of the Fisherman's Pier parcel either through purchase or an access agreement, construction of a parking deck in a future project phase.

Potential conflicts between vehicles and pedestrians would be improved by keeping the predominant pedestrian flow away from any traffic destined to the MPL or Transportation Center. There is adequate space near the building to accommodate bike racks/lockers.

Access to the site for drop/offs and pick/ups would likely require a change to parking lot management. Short-term spaces could be provided near the building to accommodate both taxis and drop-off/pick-up traffic, though this would result in a loss of parking spaces. To further enhance automobile and taxi access to the transportation center an automated parking system could be installed and configured to allow for short-term (i.e. 10 minute) entrance to the MPL free of charge.

As noted previously there are multiple configurations for circulation in and around the MPL (i.e. separate MPL exit for buses at Lopes Square). The circulation plan developed for this feasibility study appears to be the most beneficial, however it will be possible to make changes as design for the project progresses if the impacts related to circulation changes are not acceptable.

Table 2
Summary of Transportation System Attribute Differences

Attribute	*Criteria*	*Land-Side Alternative*	*Water-Side Alternative*
Transit	Bus Accessibility	9 spaces	11 to 12 spaces
	Ferry Accessibility	¼ mile from ferry dock	1/8 mile from ferry dock
Traffic and Parking	Parking Impacts	Loss of 8 parking spaces	Loss of 25 parking spaces
	Traffic Impacts	New One-way roadway Minimizes traffic conflicts	New One-way roadway Minimizes traffic conflicts
	Pedestrian Impacts	Little impact on pedestrian conflicts	Minimizes pedestrian conflicts
Transportation Center Access	Automobile	via Ryder Street Ext.	Via Municipal Parking Lot
	Taxi/Jitney	Limited Space for Taxi/Jitney Stand	Taxi/Jitney Stand would require loss of additional MPL parking
	Bicycle	Limited ability for bike racks near building	Ability to install bike racks near building (under canopy)

Development Attributes

The needs of the potential users of the Transportation Center are also of critical importance. The differences in the ability of each alternative to meet these needs are summarized in Table 3.

Table 3
Summary of Development Attribute Differences

Primary Criteria	*Secondary Criteria*	*Land-Side Alternative*	*Water-Side Alternative*
Potential Users	Meets potential user needs	May meet needs	Will meet needs
	Potential for additional development	No potential for additional related development	No potential for additional related development
	Ability to encourage public/private partnerships	Public/Private partnerships may be constrained	Public/Private partnerships can be maximized

Potential Users

The building sketch plans have been developed in order to meet the needs of the potential users identified previously. The following table provides the square footage amounts included in each sketch plan.

Table 3
Size of Transportation Center Functions

Alternative	*Function*	*Size (square feet)*
Landside Maximum	Waiting lobby/ticket vending	1,040
	Supervisor	180
	Bathrooms	1,020
	Chamber of Commerce display	140
	National Park display	140
	Sanctuary & Bookstore	3,170
	Retail	1,890
	General Circulation	1,920
	Total Building	**9,500**
Landside Minimum	Waiting lobby/ticket vending/displays *	1,260
	Supervisor	150
	Bathrooms	340
	Sanctuary & Bookstore	1,900
	Retail	950
	General Circulation	1,410
	Total Building	**6,010**
Waterside Maximum	Waiting lobby/ticket vending/displays *	1,500
	Supervisor	170
	Bathrooms	850
	Sanctuary & Bookstore	3,410
	Retail	1,840
	General Circulation	7,30
	Total Building	**8,500**
Waterside Minimum	Waiting lobby/ticket vending	920
	Supervisor	170
	Bathrooms	440
	Sanctuary & Bookstore/displays *	1,880

Retail	1,000
General Circulation	640
Total Building	**5,050**

Each alternative provides enough space to meet the minimum space needs previously identified. Due to space constraints in the entire study area, there is no potential for additional development related to the Transportation Center.

However, the functionality of those spaces certainly differs between the two alternatives.

The Landside Alternative would require that all exhibit and retail space be located on a second floor. This requirement is less than ideal for the retail function and is likely not a viable location for the fish market function that was previously envisioned. The second floor retail location may limit the attractiveness of the space to other potential partners thereby limiting the opportunities for public/private partnerships.

As mentioned previously the specific functions of The Transportation Center could be reorganized within the interior of the building. A first floor location for most of the functions of the Transportation Center would be preferable, if not necessary. However, first floor space is limited in the land-side alternative, therefore some function (i.e. retail, bathrooms or exhibits) will need to be upstairs. This is a major constraint to the attractiveness/feasibility of this alternative.

Another concern noted with the land-side building space configuration is related to bathroom size. It was noted that the minimum space requirements for the bathrooms are probably not adequate. Expansion of the bathroom space would be an issues for the land-side alternatives since the possible building footprint is limited.

Visitor Information

Another important function that the Transportation Center will provide is a central location for visitor information, whether it be transportation information, tourist information, recreational information or other information of interest to Provincetown visitors. The goal of this function of the Transportation Center is to provide a location where information is more centralized and visible to visitors. Both sites will be able to provide a central location for visitor information. The location and visibility of the waterside alternative may make that alternative slightly more attractive in this

regard since it is closer to the ferry docks and will provide a central place for information before visitors reach the town center area.

LEED Attributes

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System® uses information from all segments of the building industry to provide a complete framework for assessing building performance and meeting sustainability goals. By using well-founded scientific standards, LEED promotes strategies for water conservation, energy efficiency, the selection of building materials, as well as providing strategies to create a quality indoor environment. LEED offers certification of development projects, although applying for certification is voluntary.

LEED-NC Version 2.2 Rating System would be used to certify this project, since it is new construction. The certification is based on a checklist where each attribute of the building is analyzed. The characteristics are covered under six categories in the checklist which each contain multiple sub-characteristics. Of those sub-characteristics only seven are absolutely required for certification. Points for the other sub-characteristics are assessed and added together to evaluate the certifiably of the project. The certification comes in four levels, with the minimum of points needed for certification being 26 out of 69 points.

Since we are only looking at the two alternative sites for the project at this time, we can only look at the first of six categories in the LEED-NC checklist, "Sustainable Sites". At minimum, both alternative sites would be acceptable according to the checklist. The fewest points these site would receive in this category is three for the land-side alternative and two for the water-side alternative. The Water-side alternative has one fewer point because it is an undeveloped site within a flood plain according to FEMA, while the Land-side alternative is a previously developed site. The deficit of one point for the Water-side alternative could be offset by other characteristics that would be included during the design, planning, or construction phases of the project. Many of the characteristics in the "Sustainable Sites" category, as well as all of the other characteristics in the other categories, must be looked at during the other phases of the project.

The cost of certifying this project would be determined by the cost of materials and labor needed to comply with the minimum certification, as well as the cost of applying for certification.

Community Attributes

The development of the MacMillan Pier Transportation Center would promote many local and regional goals by promoting tourism and limiting automobile dependency. Specific goals and policies established in the Provincetown Local Comprehensive Plan, Provincetown Harbor Plan, Cape Cod Regional Policy Plan, and the Cape Cod Five-Year Public Transportation Plan, are listed below.

Support of Local Comprehensive Plan Goals

The vision from the Town of Provincetown **Local Comprehensive Plan** (LCP), approved April 3, 2000, encourages keeping the general characteristics of the town intact. The focus is on managing development and keeping strict controls on future developments and projects that will affect the town. The Transportation Center project fits into the vision since it will assist in keeping Provincetown a pleasant environment for tourists and residents. The goals of the LCP that the Transportation Center will support include:

- **Land Use and Growth Management Goal 2:** To maintain and reinforce the compact pattern of development established by the historic village development pattern.
- **Land Use and Growth Management Goal 4**: To protect the harbor and waterfront while continuing to provide public access to the waterfront for traditional Town uses such as commercial fishing and whale watching, and for public use and tourist-related activities.
- **Coastal Resources Goal 1:** To protect public interests in the coast and rights for fishing, fowling and navigation; to preserve and manage coastal areas so as to safeguard and perpetuate their biological, economic, historic, maritime, and aesthetic values; and to preserve, enhance and where appropriate, expand public access to the shoreline.
- **Air Quality Goal 1:** To maintain and improve Provincetown's air quality so as to ensure a safe, healthful, and attractive environment for present and future residents and visitors.
- **Economic Development Goal 1:** To promote businesses that are compatible with Provincetown's environmental, cultural and economic strengths in order to ensure balanced economic development.

- **Economic Development Goal 9:** To develop commuter access to and from Boston, Providence and Cape Cod Community College.
- **Community Facilities and Services Goal 1:** To foster and maintain a multimodal transportation system for present and future year-round and seasonal needs which is safe, convenient, accessible, efficient, economical, and consistent with the Town's historic, scenic, and natural resources, and land use development and growth management policy.
- **Community Facilities and Services Goal 2:** To decrease dependence on private automobiles, address demonstrated public needs for convenient, accessible, economical alternatives to private automobiles, and promote energy efficiency and reduced pollution. Develop and integrate alternate modes (e.g., rail, bus, ferry, air, bicycle, and pedestrian) into the transportation system and promote telecommunications and other substitutes for transportation.
- **Community Facilities and Services Goal 3:** To support transportation solutions that preserve and enhance Cape Cod's character by considering the interrelationship between land use and transportation.

However, the waterside alternative does conflict with one goal and one policy in the Plan regarding development along the coast:

- **Coastal Resources Goal 2:** To limit development in areas subject to coastal storm flowage, particularly high hazard areas, in order to minimize the loss of life and structures and environmental damage resulting from storms, flooding, erosion, and relative sea level rise.
- **Policy M:** Existing views to the shore from surrounding areas should be maintained wherever possible

The **Provincetown Harbor Plan** examines the present and future state of Provincetown Harbor. It considers five key issues, three of which relate directly to the Transportation Center. These include: Providing for Diverse Vessel Use and Needs; Assuring Public Access to the Shoreline for Recreation; and Planning for Future Harbor Uses. The Plan sets forth several goals that the project will support:

- Decisions concerning use of the harbor and its edges should seek to achieve a balance, allowing for multiple uses and seeking compatible relationships among them.

- Provincetown Harbor is a scenic resource and activity center for tourism and recreation; this role should be protected and enhanced.
- Public access to and along the water's edge should be consistently protected and enhanced.
- Provincetown should strive to improve existing deficiencies in the harbor for all existing uses, without seeking to significantly shift the balance of uses in the short term.

One objective that is mentioned that also coincides with this project is:

- MacMillan Pier should be managed to continue to serve as the multiple-use hub for public access to the water.

Support of Regional Goals

The **Cape Cod Regional Policy Plan** is set up to guide the future of Barnstable County. The vision of the Plan is to "define the essence of Cape Cod, to assure its distinctiveness, and to discover a way for us to inhabit and enjoy the Cape without turning it into merely another place." The project fits into this vision because of the proposed sites for the Center, and because it will encourage the use of alternative transportation to and within Cape Cod, which will help achieve many of the goals established in the Plan. The primary goals that the project will support include:

- **4.1.2 Goal**: To reduce and/or offset the expected increase in motor vehicle trips on public roadways and to reduce dependency on automobiles.
- **4.4.1 Goal**: To identify and provide state-of-the-art community and regional facilities that meet community and regional needs consistent with the goals and policies established in Local Comprehensive Plans, the Regional Policy Plan, and the Capewide Regional Infrastructure and Facilities Plan.
- **1.1 Goal**: To encourage growth and development consistent with the carrying capacity of Cape Cod's natural environment in order to maintain the Cape's economic health and quality of life through the enhancement of existing village and regional centers that provide a pedestrian-oriented and transit-accessible environment for living, working, and shopping for residents and visitors.

The vision of the **Cape Cod Five-Year Public Transportation Plan** is to have "A comprehensive, accessible, and integrated public transportation system that allows the traveler to say 'I can get there from here…when I want to go!'" This project will help advance the Plan and help improve the quality of life on Cape Cod through improved accessibility and attractiveness of public transportation, which is the Plan's ultimate goal. The specific goals outlined in the Plan that this MacMillan Pier Transportation Center supports, includes:

- **Goal 1:** Reduce auto dependency
- **Goal 2:** Mitigate seasonal traffic
- **Goal 3:** Meet the needs of the year-round population
- **Goal 5:** Incorporate smart growth and land use planning

DEVELOPMENT RESEARCH

Review of Regulations

The following sections provide an assessment of the permitting and regulatory process that would be required for each alternative. These include

- Massachusetts General Law Chapter 91 Waterways Licensing Program
- Regulations specific to construction over the water
- Environmental Regulation (National Environmental Policy Act & Massachusetts Environmental Policy Act)
- Cape Cod Commission Review
- Provincetown Zoning Review

Permitting Requirements

Permitting requirements for the alternatives under consideration for the Transportation Center are driven by the type of use and location in terms of proximity to water resources protected under federal and state regulatory programs. The proposed facility would be considered a water dependent use given its proposed interface with patrons of the ferry service at MacMillan Pier and their ultimate destinations in the Provincetown area.

Massachusetts General Law Chapter 91 Waterways Licensing Program

Massachusetts' principal means for protecting and promoting water-dependent uses of its tideland and other waterways is M.G.L. Chapter 91 (Public Waterways Act, 1866). The Chapter 91 Waterways Regulations are administered by the Massachusetts Department of Environmental Protection (MDEP). Listed among the water-dependent uses is Section 9.12(2) of the regulations is:

- Aquariums and other education, research or training facilities dedicated primarily to marine purposes;
- Facilities associated with commercial passenger vessel operation; and
- Marine terminals and related facilities for the transfer between ship and shore.

The potential uses being considered for this Transportation Center such as the Stellwagen Bank NMS and Cape Cod National Seashore information displays are consistent with these types of uses.

The Provincetown Amended Harbor Plan (Proposed Amendments and Updates for Town Meeting on March 2, 2005, p. 23 and 24) states the following:

"The Chapter 91 regulations stipulate that where a State-approved harbor plan exists, projects requiring a DEP license or permit and subject to the current regulations must conform to the plan (310 CMR 9.34(2)). The municipal harbor plan is used by DEP for guidance which amplifies upon discretionary requirements of the waterways regulations.

There currently exist several areas devoted primarily to water-dependent use. It is important that we support the protection of these water dependent uses and promote new water dependent projects as need arises, while enduring compatibility within their environ. This Harbor Plan honors and retains the unique historical and cultural features, which make this seaside village so attractive a tourist destination; even after time has changed the way the town uses the foreshore and the harbor. This Plan seeks to be consistent with the goals and aspirations the Provincetown community expressed in its Local Comprehensive Plan and its historic bylaws".

The Chapter 91 license #8621 for reconstruction of MacMillan Pier was issued as a 5 year license in March 2000 so the time has lapsed under the existing license to request a modification to that license. That license specifically noted that terminal facilities shall include restrooms, which are an integral part of the proposed Transportation Center. Justification for an amendment versus a new license will require the same processing time as a new license. The new license application might smooth the entire permit process.

Both waterside site and the landside site would be under Chapter 91 review. Review of the **waterside site** would be required due to the site location over water. The **landside site** for the Transportation Center, while not over the water, is located on historic filled tidelands and will therefore require review pursuant to the State's Chapter 91 Public Waterfront Act, as well as review by the local Conservation Commission for work within the buffer zone to wetland resource areas. Approval by the Conservation Commission is likely to be obtained in approximately 2-3 months.

Regulations specific to construction over the water

For the **waterside** option, the pile-supported Transportation Center built over the water is subject to Section 10 Rivers and Harbors Act

of 1899 and the Clean Water Act Section 404, administered by the U.S. Army Corps of Engineers. The Corps issued a Programmatic General Permit for Massachusetts which provides three levels of review for work subject to Corps permitting. The Transportation Center could fall in the Category 2 level as a modification to existing boating facilities; Coastal Zone Management (CZM) coordination will be handled via the Army Corps Category 2 review process, during which Massachusetts CZM could determine that separate consistency certification is necessary; Water Quality Certification under Section 401 of the Clean Water Act administered by the Massachusetts Department of Environmental Protection; Massachusetts General Law Chapter 91 and the Waterways Regulations (310 CMR 9.00) administered by the Massachusetts Department of Environmental Protection Waterways Regulation Program (likely new Chapter 91 license); and the Massachusetts Wetlands Protection Act (310 CMR 10.00) administered by the Provincetown Conservation Commission.

It is anticipated that the above listed permits can be obtained in a three to six month time frame. It is assumed that for the Corps Category 2 review National Marine Fisheries, U.S. Fish & Wildlife Service and US. Environmental Protection Agency will be notified to address any fisheries concerns. Assuming the Conservation Commission agrees that functions and values of the resource areas, including marine fisheries, will not be compromised by the project then State and Federal agencies should not pose permitting problems. Recent neighboring private pier (Fisherman's) expansion resulted in a Corps finding that the site specific adverse effect of retention and maintenance of a pier and change of use thereon would not be substantial in an Essential Fish Habitat. Included with the Category 2 application submitted to the Corps should be copies of the cover letters for information packages sent to the State's Historic Preservation Officer at the Massachusetts Historical Commission and the Wampanoag and Narragansett Tribal Historic Preservation officers along with a copy of these officers' responses when applicable. Early coordination with DEP Waterways and MCZM staff will expedite review process.

Environmental Regulations

- ❑ 1. Massachusetts Environmental Policy Act (MEPA) requirements

  Neither Transportation Center site alternative would require a filing under MEPA (301 CMR 11.00) because of the water dependent nature of the proposed facility.

- ❑ 2. National Environmental Policy Act (NEPA) requirements

Assuming that the Transportation Center is federally funded, the project would be required to comply with NEPA. It is possible that the landside alternative would be considered as a Categorical Exclusion with federal approval based on the following criterion:

> *Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic. 23 CFR* §771.117 (d) (10).

However, since there will be a building being built, FTA or the appropriate federal agency, may be inclined to require an Environmental Assessment (EA). For the waterside alternative it is anticipated that it will require an EA. Although development of an EA is likely to be required, it does not appear that any significant natural resources will be impacted that would either require extensive mitigation or development of an EIS. However, if there are community/cultural concerns (i.e. visual impacts) then the EA may be a more extensive effort resulting in mitigation or other project modifications.

Cape Cod Commission Review

The Cape Cod Commission (CCC) is a regional land use planning and regulatory agency that reviews projects that present regional issues including water quality, traffic flow, historic values, affordable housing, open space, natural resources, and economic development.

The Transportation Center would be designated as a Development of Regional Impact (DRI) since it will meet the following review threshold:

> *3 (h) Any development providing facilities for transportation to or from Barnstable County, including but not limited to ferry, bus, rail, trucking terminals, transfer stations, air transportation and/or auxiliary uses and accessory parking or storage facilities, so long as such auxiliary and/or accessory uses are greater than 10,000 square feet of Gross Floor Area or 40,000 square feet of outdoor area.*

Although it meets the review threshold of CCC review it is anticipated that an exemption request would be filed. The exemption process allows for projects that literally qualify as a DRI, but the location, character and environmental effects of the development will

prevent its having any significant impacts on the resources, values and purposes considered by the CCC outside of the community where the development is located.

It is assumed that an exemption would be warranted by the CCC since the primary purpose of the project is to advance some of the goals of the Cape Cod Regional Policy Plan through both making improvements to public transportation amenities for the visitors and residents of Cape Cod and by provide a higher visibility and understanding of the region's natural resources, specifically the Stellwagen Bank NMS. Furthermore it is not anticipated to result in any significant impacts, either limited to Provincetown or of a regional nature.

Provincetown Zoning Regulations

The Town of Provincetown Zoning By-Laws dated September 1, 1978 and revised May 4, 2005 and the accompanying Zoning Map indicate that both sites are within the Town Center Commercial (TCC) zoning district. In addition, the waterside site is within the Harbor front Area (HA) Overlay District.

The TCC district allows for all three uses anticipated for the Transportation Center: Transportation Terminal (C9), Museum (D5) and Other Retail (B4f). The HA overlay district also allows for all three uses through Special Permit from the Zoning Board of Appeals.

The Transportation Terminal (C9) and Museum uses have the following standards to meet in order to obtain the Special Permit:

> *Such Special Permit shall be granted only if the Board of Appeals determines that operating costs of the proposed use would be substantially greater for any but a waterfront location, and after considering the degree to which the proposal would:*
>
> *a. Interrelate productively with other waterfront activities;*
>
> *b. Make efficient use of harbor frontage in relation to jobs supported or taxes contributed;*
>
> *c. Improve opportunities of visual and pedestrian access to the waterfront;*
>
> *d. Affect the ability of the town's utilities, roads and public service to service others;*
>
> *e. Improve or maintain harbor water quality*

The Other Retail (B4f) use has the following standard to meet in order to obtain the Special Permit:

Such use shall be authorized with a Special Permit for the Zoning Board of Appeals as provided for in Section 5300 and after considering the degree to which the proposal would:

a. Interrelate productively with, and help promote, other waterfront activities;

b. Make efficient use of harbor frontage in relation to jobs supported or taxes contributed;

c. Improve opportunities of visual and pedestrian access to the waterfront;

d. Does not adversely impact harbor water quality

It appears that the Transportation Center located at the waterside alternative site will meet all of the above listed criteria. However, it is also likely that item c. "Improve opportunities of visual and pedestrian access to the waterfront", may end up being controversial in the town as the waterside alternative will certainly improve pedestrian access to the waterfront with the proposed boardwalk improvements, but it will also result in a visual barrier to the water and harbor from many locations in the Town Center area.

With regard to Dimensional Requirements, the zoning by-laws identify the following setback requirements for the TCC district which would apply to both alternative sites

- Minimum Front Yard setback 10 feet
- Minimum Side Yard setback 5 feet[1]
- Minimum Rear Yard setback 10 feet
- Maximum Lot coverage 40%

1: May be reduced to zero wit a party wall (jointly owned by owner or abutting properties) meeting the requirements of the State Building Code, provided that access to the rear of the property is maintained for emergency vehicles.

The landside alternative will need to request a variance for each of the above listed dimensional requirements as it will result in a minimal setbacks and a lot coverage greatly exceeding the 40% maximum. It is not clear how the dimensional standards would be applied to the waterside alternative as the site is not in a specific parcel and where the lot lines would be established.

Utility Relocations/Property Ownership

Both alternative sites appear to be on parcels owned by the Town of Provincetown. Additionally it does not appear that there are any easements located on the parcels which would be of concern to the development of the Transportation Center.

Although utility plans were not available at the time of this study, a field visit of the site and discussions with town representatives suggest that there are no utilities in the area that could not easily be relocated as part of the project. Since the landside alternative is immediately adjacent to the sewer vacuum station there are undoubtedly sewer vacuum lines that run through project site that will need to be relocated. Although there will be a cost associated with the relocation of these lines, it is not thought to represent additional difficulties. Additionally the project will be required to make some minor modifications to the storm water system in the Lopes Square area as curb lines and other storm flow impediments will be modified as a result of the project. There are no additional major utility relocations that are anticipated for the either alternative site based on the existing information available.

FEASIBILITY STUDY SUMMARY

The following section provides a brief summary of the issues and concerns to consider in the selection of a site for the Transportation Center. From a review of information obtained to date it appears that development of The MacMillan Pier Transportation Center is feasible on either site. However, the degree to which the each alternative site is able to meet the potential users needs and the impacts that result from each alternative site differ, with neither alternative clearly more advantageous than the other.

The building sketch plans, site plans and circulation plans are preliminary in nature and are subject to change as the plans for use, funding and operation of the Transportation Center progress. One concern expressed repeatedly by all parties was the need to preserve the parking spaces in the MPL since this is a major source of revenue for the town. Neither of the alternatives were able to preserve the existing parking space count as a result of the increased space dedicated to bus circulation and parking. However, the small parcel located directly to the west of the MPL represents a possible opportunity to mitigate the loss of parking spaces. If the town were to purchase, or obtain an access easement, to enable it to be incorporated into the circulation plan of the MPL than the original number of spaces, or possibly even additional spaces, could be maintained in the MPL. Other options to mitigate the loss of parking spaces could be explored such as installation of metered parking on the existing site of the bathroom building (if the water-side alternative is selected) or future construction of a parking deck on the MPL site.

Other potential developments in the area that may impact or be affected by the size, shape or use of The Transportation Center include redevelopment of both Fisherman's (Cabral) Pier and the Widah Museum. As planning and design of the Transportation Center progresses an assessment of the redevelopment of these properties should be considered.

One issue that needs to be more fully explored in future planning and design phases is the operating costs and management of The Transportation Center. The annual costs to maintain and staff a facility with the various functions anticipated for The Transportation Center is something that needs to be carefully considered and accounted for in the planning process. Although there does not appear that any substantial difference in operating costs between the two alternatives, a business plan for management of the building will be necessary. Such a business plan will require resolution and definition of the building owner, commitments for leasing, staff requirements and maintenance requirements.

Land-Side Alternative

Benefits

The Land-Side Alternative has the following benefits

- Minimizes loss of parking spaces within the MPL
- Minimizes changes to circulation in the MPL/MacMillan Pier area
- Would be complementary to the existing urban form of the Town Center area
- Is a permitted use in the TCC zoning district without Special Permit

Constraints

The Land-Side Alternative has the following constraints

- Limited ability to meet facility requirement for all potential users.
- Would not provide expansion of bus berth capacity from existing condition.
- Maximum option may require revision depending on clearance requirement of the adjacent sewer vacuum station.
- Will require a variance for the setback requirement of zoning code
- Results in a less desirable second floor retail space

Costs

Total project costs for the Land-Side Alternative are estimated at approximately $3 million to $4 million depending upon the size of the building (detailed cost estimates included in Appendix). These costs include making improvements to the MPL (repaving, striping, and lighting), landscaping, and the Transportation Center itself. Also included is an allowance for utility relocation anticipated for the sewer vacuum station, relocation of the collection booth and the necessary modifications to the island in Lopes Square. A 25% contingency has been included as appropriate for the current level of design, as well as design and project management costs. It should be noted that the costs are given in today's dollar (2005) and with 5% escalation to the anticipated project construction year of 2008 the total project costs would range from **$3.5 million** to **$5 million**.

Water-Side Alternative

Benefits

The Water-Side Alternative has the following benefits

- Located in a prime location to intercept ferry passengers prior to reaching the town center (only 1/8 mile from ferry dock)
- Provides maximum ability to meet facility requirements for all potential users.
- Provides flexibility in bus berth area to meet the future needs of transit/motor coach services.
- Provides opportunity to enhance green space/waterfront access.
- Possibility of establishing a pocket park (or other public use) on the site of the existing restroom building.

Constraints

The Water-Side Alternative has the following constraints

- Results in the loss of more parking spaces within the MPL
- Would result in a visual impact to the Town Center area that may not be acceptable to the community.
- May require installation of automated parking lot management system to accommodate drop-off/pick-up at The Transportation Center.

Costs

Total project costs for the Water-Side Alternative are estimated at approximately $4.5 million to $6.3 million depending upon the size of the building (detailed cost estimates included in Appendix). These costs include making improvements to the MPL (repaving, striping, and lighting), landscaping, and the Transportation Center itself including construction of a pier over water. The cost estimate does not include any allowance for improvements to the existing restroom building site (the land-side alternative site). Also included is an estimated cost for the relocation of the collection booth and the necessary modifications to the island in Lopes Square. A 25% contingency has been included as appropriate for the current level of design, as well as design and project management costs. It should be noted that the costs are given in today's dollar (2005) and with 5% escalation to the anticipated project construction year of 2008 the total project costs would range from **$5.25 million** to **$7.25 million**.

APPENDIX

MACMILLAN PIER TRANSPORTATION CENTER FEASIBILITY STUDY

COST ESTIMATES

Subject MacMillan Wharf Transportation Center
Feasibility Study

Conceptual Costs
Land Side Alternative

Item		Quantity	Unit	Unit Cost	Total
Site Work					
Survey and Stakeout		1	LS	$ 10,000.00	$ 10,000
Mobilization (3% of Site Total)		1	LS	$ 12,600.00	$ 12,600
Building Demolition		1	LS	$ 12,600.00	$ 12,600
New Concrete Sidewalk		230	SY	$ 35.00	$ 8,050
Pavement Scarification		15000	SY	$ 3.00	$ 45,000
Bit. Pavement Overlay (1 1/2" Depth)		1260	TON	$ 60.00	$ 75,600
Parking Lighting Installed		50	POLES	$ 5,000.00	$ 250,000
Striping (Thermoplastic)		7500	LF	$ 1.00	$ 7,500
Signage		1	LS	$ 3,000.00	$ 3,000
Granite Curb		1700	LF	$ 35.00	$ 59,500
Modification Lopes Square Island		1	LS	$ 10,000.00	$ 10,000
Seed and Loam		1500	SY	$ 25.00	$ 37,500
Timber railing		650	LF	$ 26.00	$ 16,900
Trees		20	EA	$ 900.00	$ 18,000
Collection Booth Relocation (power and tel		1	LS	$ 10,000.00	$ 10,000
Catch Basin, Cover, and Pipe		2	EA	$ 3,500.00	$ 7,000
Utility Relocation Allowance		1	LS	$ 50,000.00	$ 50,000
Benches		3	EA	$ 900.00	$ 2,700
Waste Receptacles		3	EA	$ 450.00	$ 1,350
Bike Rack		1	EA	$ 350.00	$ 350
Site Work Total				Sub-total:	$ 637,650
				SAY:	$ 638,000
Transportation Center Building					
Building Structure and Interior	MIN	6000	SF	$ 225.00	$ 1,350,000
	MAX	9500	SF	$ 225.00	$ 2,137,500
Building Total			Sub-total:	MIN SAY:	$ 1,350,000
				MAX SAY:	$ 2,137,500

	MINIMUM	MAXIMUM
Sub Total	$ 1,988,000	$ 2,775,500
~25% Contingency	$ 497,000	$ 694,000
Design (~10%)	$ 199,000	$ 278,000
Project Management (~8.5%)	$ 169,000	$ 236,000
TOTAL	$ 2,850,000	$ 3,980,000

Conceptual Costs
Water Side Alternative

Item		Quantity	Unit		Unit Cost		Total
Site Work							
Survey and Stakeout		1	LS	$	10,000.00	$	10,000
Mobilization (3% of Site Total)		1	LS	$	10,200.00	$	10,200
New Concrete Sidewalk		450	SY	$	35.00	$	15,750
Pavement Scarification		15,000	SY	$	3.00	$	45,000
Bit. Pavement Overlay (1 1/2" Depth)		1,260	TON	$	60.00	$	75,600
Parking Lighting Installed		50	POLES	$	5,000.00	$	250,000
Striping (Thermoplastic)		7,500	LF	$	1.00	$	7,500
Signage		1	LS	$	3,000.00	$	3,000
Granite Curb		1,700	LF	$	35.00	$	59,500
Modification Lopes Square Island		1	LS	$	10,000.00	$	10,000
Seed and Loam		540	SY	$	25.00	$	13,500
Timber railing		670	LF	$	26.00	$	17,420
Trees		15	EA	$	900.00	$	13,500
Collection Booth Relocation (power and tel.)		1	LS	$	10,000.00	$	10,000
Parking Exit Gate		1	EA	$	5,000.00	$	5,000
Catch Basin, Cover, and Pipe		2	EA	$	3,500.00	$	7,000
Benches		3	EA	$	900.00	$	2,700
Waste Receptacles		3	EA	$	450.00	$	1,350
Bike Rack		1	EA	$	350.00	$	350
Site Work Total					Sub-total:	$	557,370
					SAY:	$	558,000
Transportation Center Building							
Building Structure and Interior	MIN	5,050	SF	$	225.00	$	1,136,250
	MAX	8,500	SF	$	225.00	$	1,912,500
Boardwalk		1,400	SF	$	75.00	$	105,000
Deck		4,600	SF	$	5.50	$	25,300
Canopy		260	LF	$	1,000.00	$	260,000
Canopy Lighting and Signage		260	LF	$	100.00	$	26,000
Pier	MIN	7,000	SF	$	150.00	$	1,050,000
	MAX	10,000	SF	$	150.00	$	1,500,000
Wood Pile for Boardwalk		26	EA	$	700.00	$	18,200
Building Total			Sub-total:		MIN SAY:	$	2,596,000
					MAX SAY:	$	3,822,000

	MINIMUM	MAXIMUM
Sub Total	$ 3,154,000	$ 4,380,000
~25% Contingency	$ 789,000	$ 1,095,000
Design (~10%)	$ 315,000	$ 438,000
Project Management (~8.5%)	$ 268,000	$ 372,000
TOTAL	$ 4,530,000	$ 6,290,000

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REPORT DOCUMENTATION PAGE

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1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
06-01-2006	Preliminary Feasibility Study	November 2005-January 2006

4. TITLE AND SUBTITLE

MacMillan Pier Transportation Center Feasibility Study

5a. CONTRACT NUMBER

DTRS57-04-D-30005

5b. GRANT NUMBER

NA

5c. PROGRAM ELEMENT NUMBER

NA

6. AUTHOR(S)

Weston, John C., Parsons Brinckerhoff Quade & Douglas, Inc.
Paul, Jeffrey M., Parsons Brinckerhoff Quade & Douglas, Inc.

5d. PROJECT NUMBER

PMIS 89966

5e. TASK NUMBER

NPS TIC No. D-365

5f. WORK UNIT NUMBER

NA

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Parsons Brinckerhoff Quade & Douglas, Inc.
75 Arlington Street, 9th Floor
Boston, MA 02116
under contract to the Volpe National Transportation Systems Center

8. PERFORMING ORGANIZATION REPORT NUMBER

VNTSC-NPS-06-01

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

National Park Service
Cape Cod National Seashore
99 Marconi Station
Site Road
Wellfleet, MA 02667

10. SPONSOR/MONITOR'S ACRONYM(S)

WASO/ATP

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

(see 5d. and 5e. above)

12. DISTRIBUTION/AVAILABILITY STATEMENT

Public distribution/availability.

13. SUPPLEMENTARY NOTES

This report addresses alternative transportation decision factors as indicated below (Y/N/NA):
(N) Non-construction options; (N) park carrying capacity; (Y) life-cycle/ops. & maintenance costs; (N) cost-effectiveness.

14. ABSTRACT

The MacMillan Pier Transportation Center Feasibility Study examines two potential sites (landside and waterside) for a transportation center that provides a range of tourist and traveler information. It would serve as a gateway for Provincetown and the Outer Cape by providing tourist resource information and to serve as a linkage between the expanding ferry service, local transit services, intercity bus services and shuttle services to the Provincetown Airport. It would also offer the potential for interpretive exhibit space for the Stellwagen Bank National Marine Sanctuary, Cape Cod National Seashore and Provincetown Center for Coastal Studies as well as other ancillary uses.

15. SUBJECT TERMS

Transportation Center, Provincetown, MacMillan Pier, Flex Route, National Park Service, Alternative Transportation

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Gary T. Ritter
None	None	None	NA		19b. TELEPHONE NUMBER *(Include area code)*: 617-494-2716, ritter@volpe.dot.gov

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NPS D-365 / January 2006