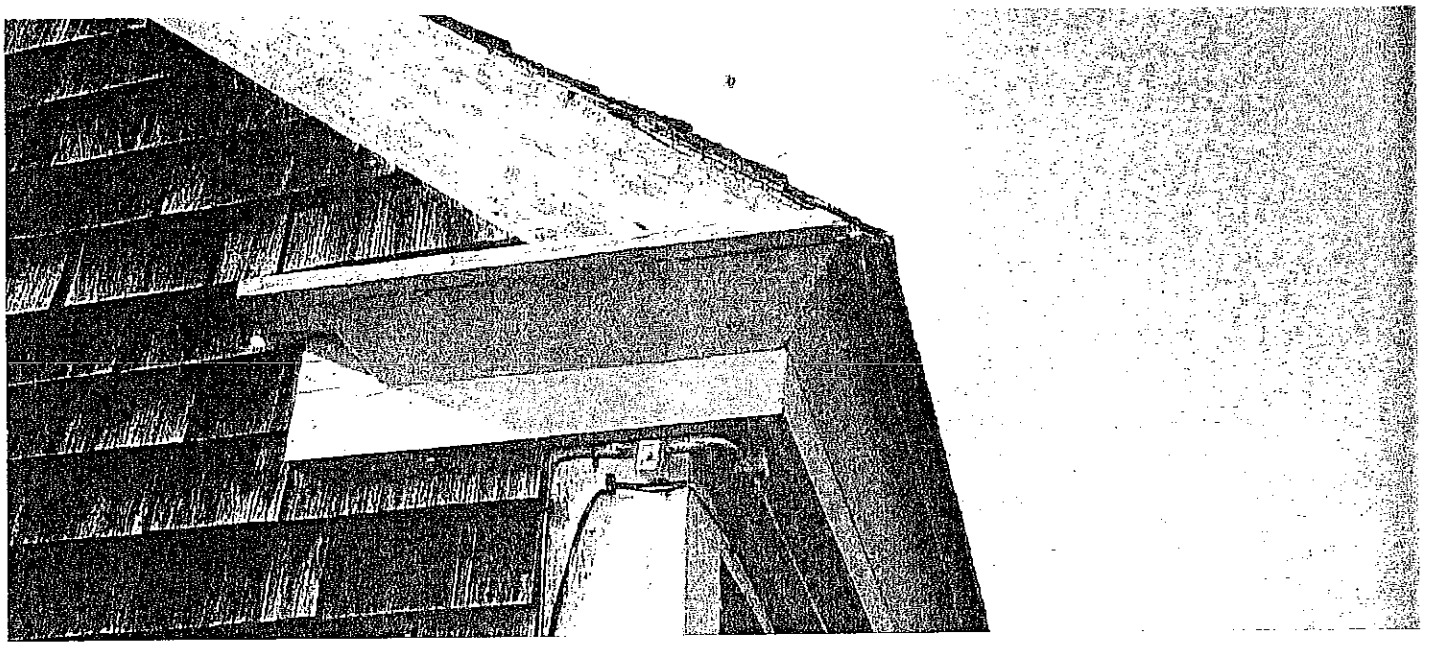
Town of Wellfleet
Health & Conservation
220 West Main Street
Wellfleet, MA 02667

FILE COPY

Mayo Beach Bathhouse Study



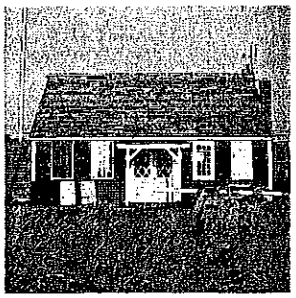
100% Conceptual Set - April 24, 2003

mstudio inc.

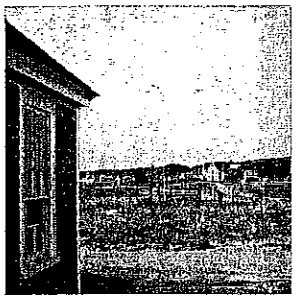
Architecture and Industrial Design
319 A Street Rear Boston, MA 02210
ph 617.482.2500 fax 617.482.9520

BCE Bourne Consulting Engineering
184 West Central Street
Franklin, MA 02038
(508) 528-8133 FAX (508) 520-8871 E-mail: bce@bournece.com

Table of Contents

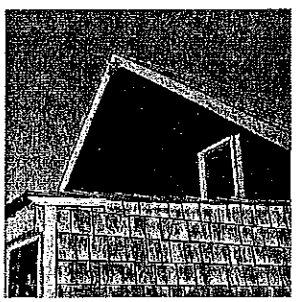


1. Overview 3

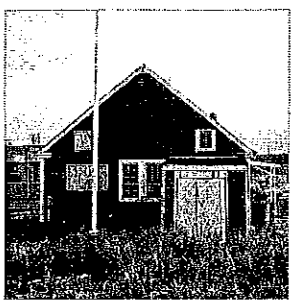


2. Site 3

3. Existing Conditions 4

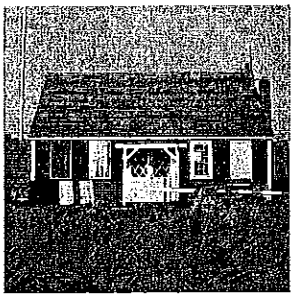


4. Conceptual Design 5



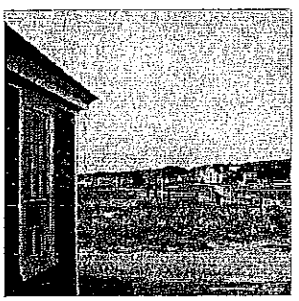
5. Conclusions/Recommendations 8

1. Overview

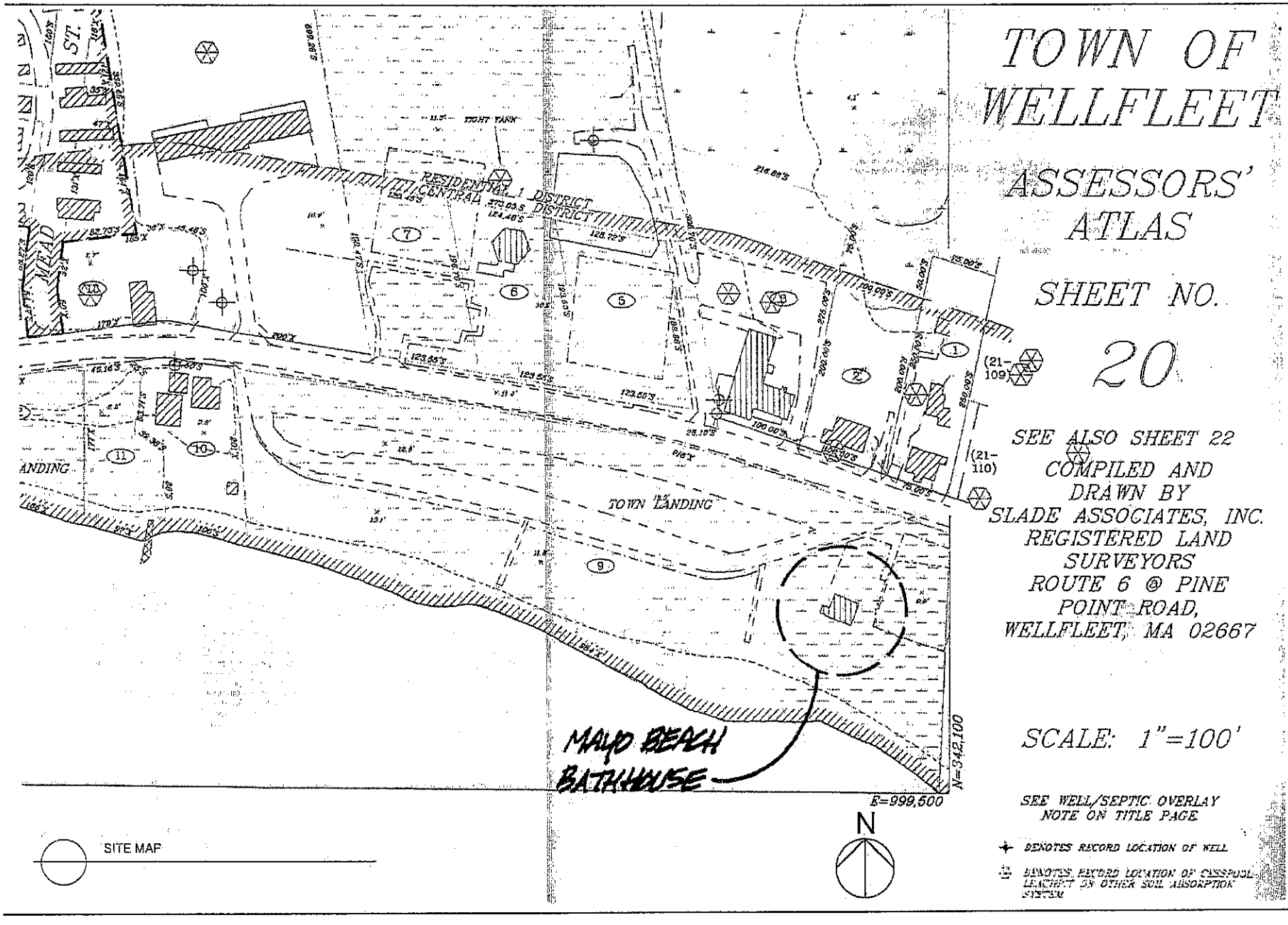


The following conceptual study documents options and feasibility to renovate the existing one and a half story wood framed clapboard building structure located at 39 Kendrick Avenue, Wellfleet, MA 02667 (Mayo Beach) into a bathhouse for the Mayo Beach site on which it stands.

2. Site



The site is located at what is more commonly known locally as "Mayo Beach" and as defined on the Town of Wellfleet Massachusetts Assessor's Atlas sheets 20 and 21 dated January 1, 1993 (see attached) as Lot 9 of the Central Zoning District. The site lies south (across Kendrick Road) of the Town of Wellfleet's Baker's Field recreational facilities. Baker's Field incorporates lots 5,6, and 7 of the Central District and Lot 4 of the Residential 1 district.



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Project
Wellfleet Bathhouse
Mayo Beach Bathhouse
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Site Map

Project North
Project Number m0234.01
Date April 21, 2003
Scale 1/4" = 1'0"
Sheet S-101

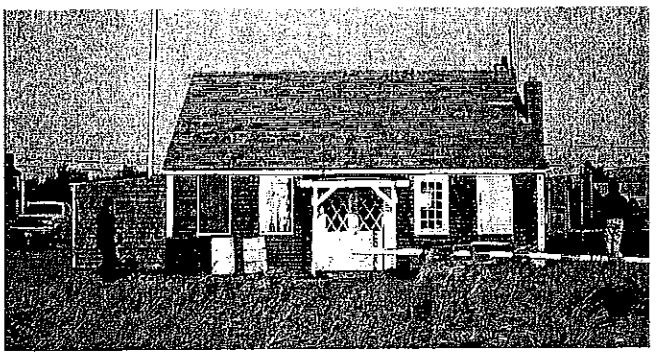
3. Existing Conditions

1. Building structure (see attached):

1. The existing one and a half story wood framed clap board building has approximately 730 square feet on the first floor with 8' foot ceilings. There is an unfinished attic space spanning the entire ground floor above, but it's height is impeded by the roof line. The ground floor is concrete slab on grade. The foundation is CMU. There is an exterior storage shed and a fixed awning attached to the main building. No central heat exists, but a temporary heating unit is present.

2. Site:

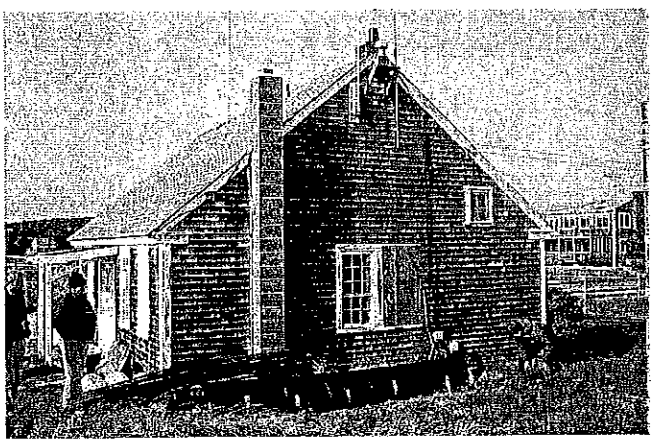
1. **The site** incorporates public beachfront, beach grass and dune areas, paved town parking and a regulation sized outdoor recreational basketball court. The entire North side of the site abuts Kendrick Ave, while the entire South side of the site abuts Wellfleet Harbor. The West side borders a Residence at 115 Kendrick Ave and the East side borders The Playhouse, Wharf Building, Pier Store, and a Town access road. The existing Mayo Beach structure to be renovated occupies a small portion of the site on the East side.
2. This site lies within an area subject to 100 year floods.
3. **Soil conditions** While no soil evaluations have been performed, a review of recent testing on the adjacent lot at 115 Kendrick Ave, conversations with Emily Beebe of the Board of Health and general knowledge of the area, indicate that the soils underlying the site are medium sand and will be suitable for support of the building foundation and construction of a septic system.
4. **Utilities:**
   1. Water is presently provided to the building on a seasonal basis (turned off for winter) via a pumped well. However, the town proposes to deliver potable water to the site by December 2003 as part of the new town water project. Wellfleet is presently allotted 20,000 gal/day of water
   2. The existing building has limited toilet facilities and they are currently are not up to the requirements of the DEP Title 5 Regulations.



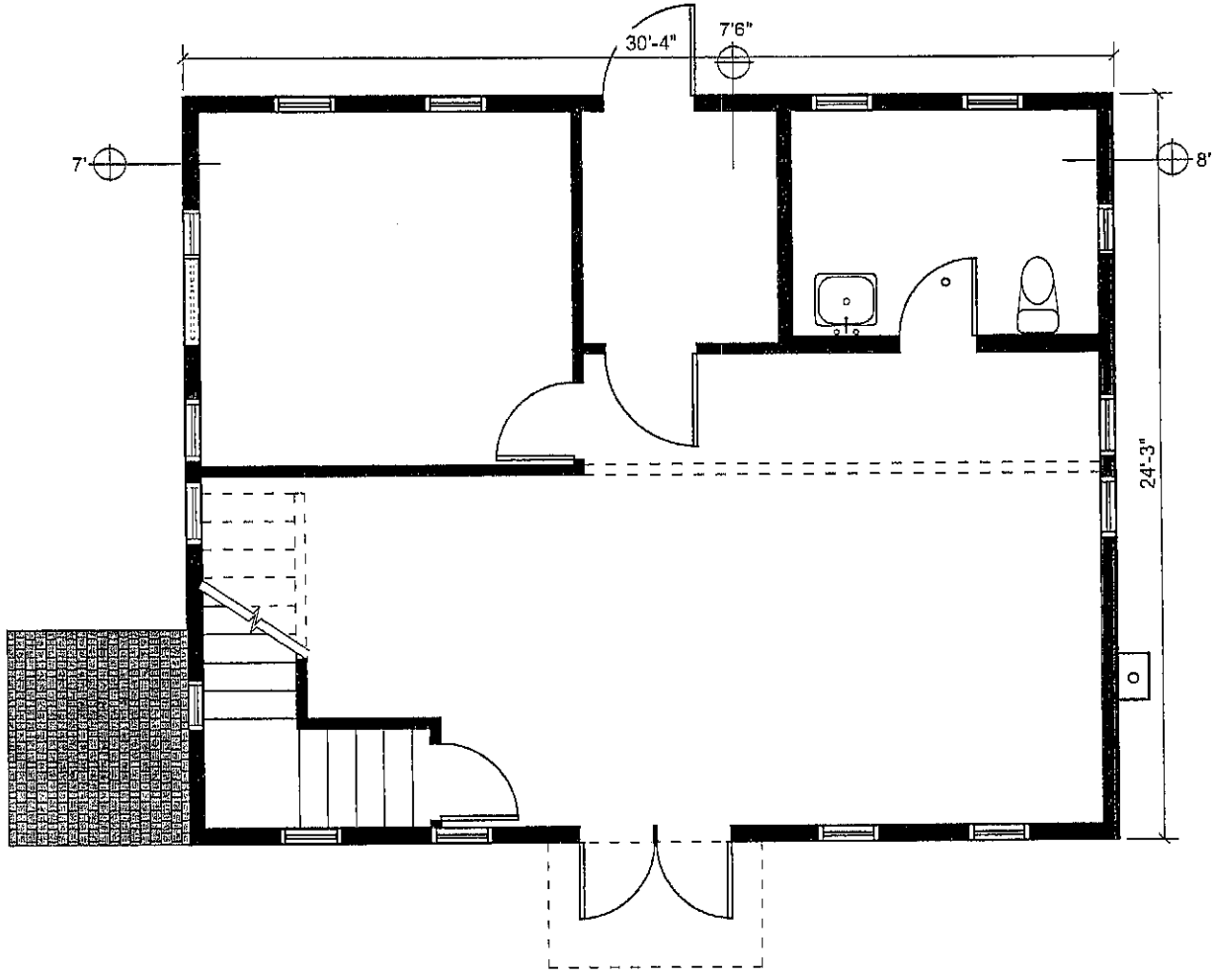
South Elevation
39 Kendrick Ave. Wellfleet, MA

North Elevation
39 Kendrick Ave. Wellfleet, MA

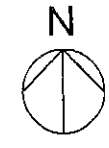
West Elevation
39 Kendrick Ave. Wellfleet, MA



East Elevation
39 Kendrick Ave. Wellfleet, MA



MAYO BEACH 1ST FLOOR PLAN
EXISTING CONDITIONS



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tel. 617-482-2500 fax 617-482-9570
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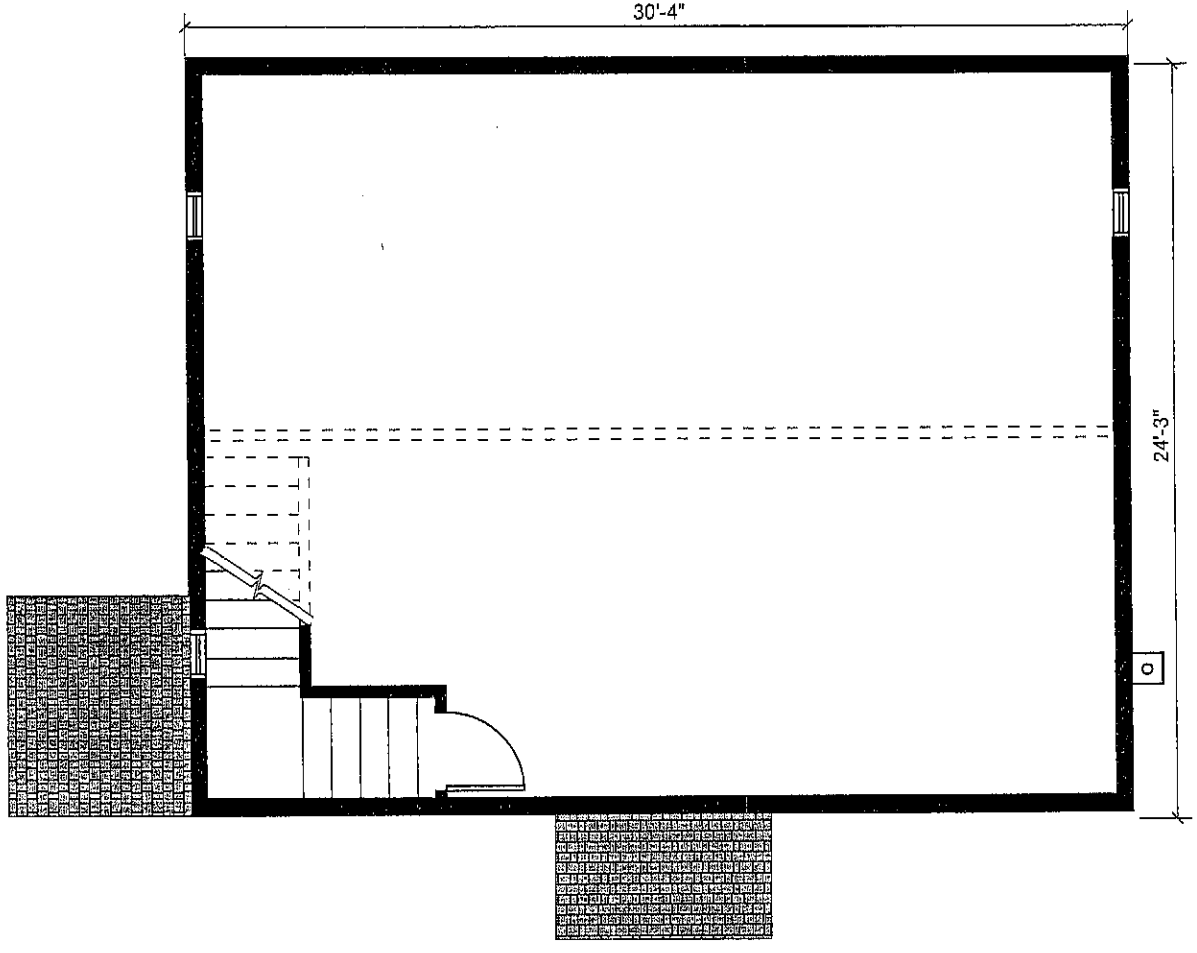
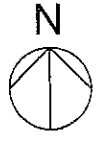
Project
Wellfleet Bathhouse
Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse
Existing Conditions
1st Floor Plan

Project North
Project Number m0234.01
Date March 24, 2003
Scale 1/4" = 1'0"
Sheet E-101



MAYO BEACH 2ND FLOOR PLAN
EXISTING CONDITIONS



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Project
Wellfleet Bathhouse

Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse

Existing Conditions 2nd Floor Plan

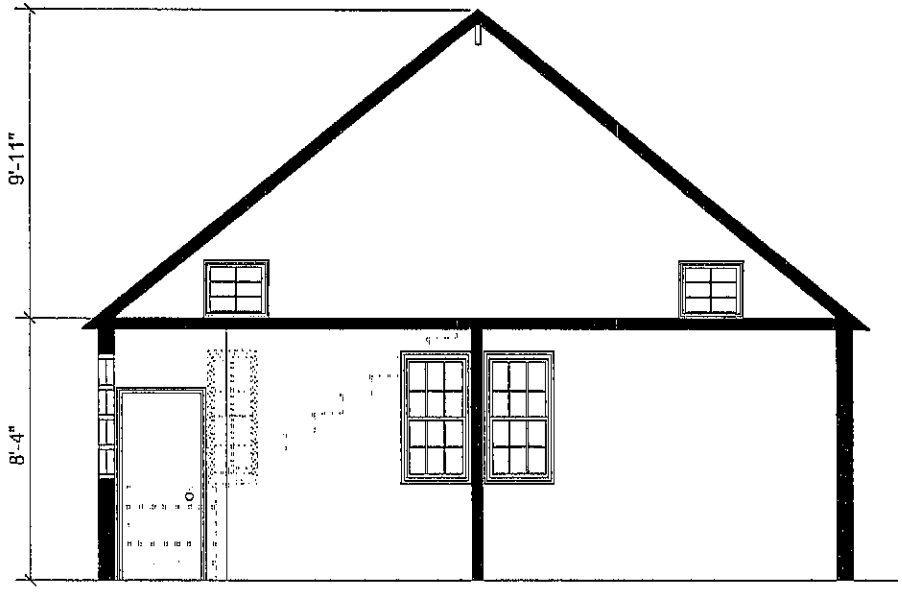
Project North

Project Number m0234.01

Date March 24, 2003

Scale 1/4" = 1'0"

Sheet
E-102



MAYO BEACH SECTION
EXISTING CONDITIONS

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Project
Wellfleet Bathhouse
Mayo Beach Bathhouse Study
30 Kendrick Ave.
Wellfleet, MA
O

Drawing
Design Proposal
Mayo Beach Bathhouse
Existing Conditions Section

Project North

Project Number m0234.01

Date March 24, 2003

Scale 1/4" = 1'0"

Sheet
E-103

MAYO BEACH WEST ELEVATION
EXISTING CONDITIONS

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Project
Wellfleet
Bathhouse

Mayo Beach Bathhouse
Study
39 Kendrick Ave.
Wellfleet, MA
0

Drawing
Design Proposal
Mayo Beach Bathhouse
Existing
Conditions
West Elevation

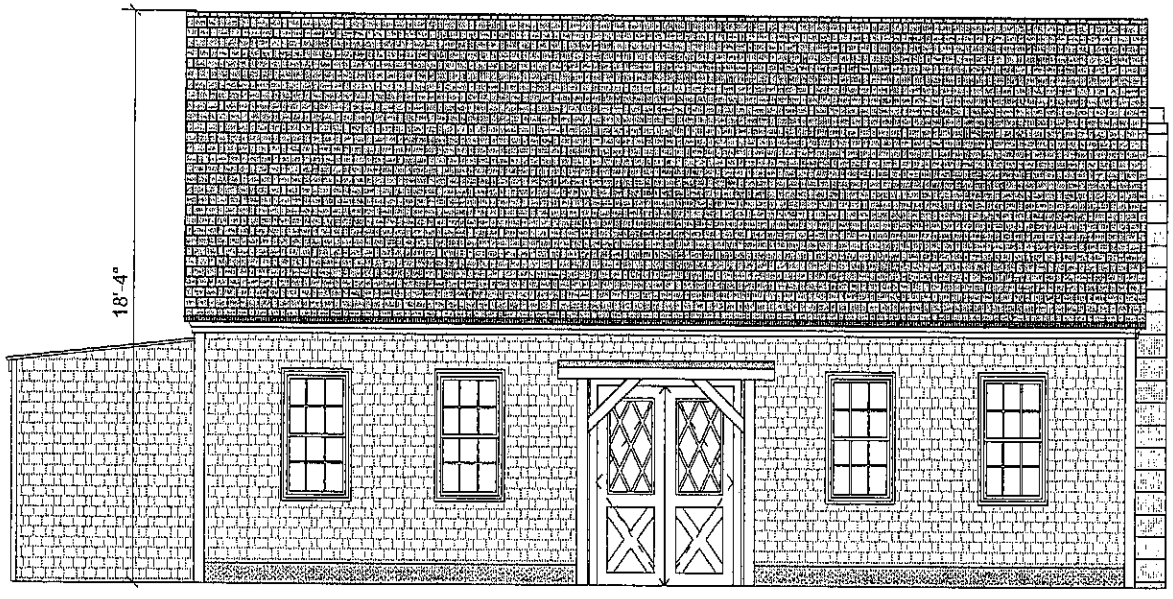
Project North

Project Number m0234.01

Date March 24, 2003

Scale 1/4" = 1'0"

Sheet
E-104



MAYO BEACH SOUTH ELEVATION
EXISTING CONDITIONS

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Project
Wellfleet
Bathhouse

Mayo Beach Bathhouse
Study
39 Kendrick Ave.
Wellfleet, MA
0

Drawing
Design Proposal
Mayo Beach Bathhouse

Existing
Conditions
South Elevation

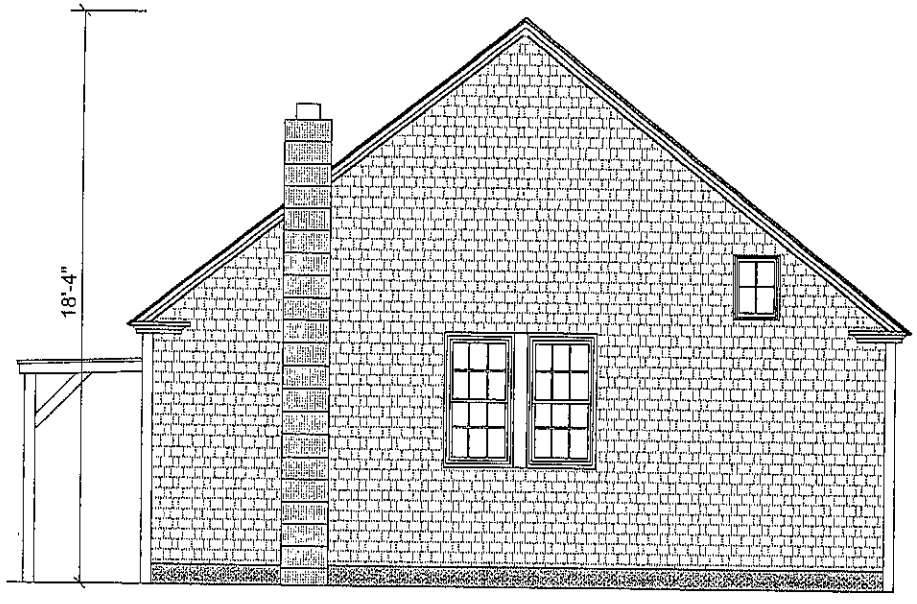
Project North

Project Number m0234.01

Date March 24, 2003

Scale 1/4" = 1'0"

Sheet
E-105



MAYO BEACH EAST ELEVATION
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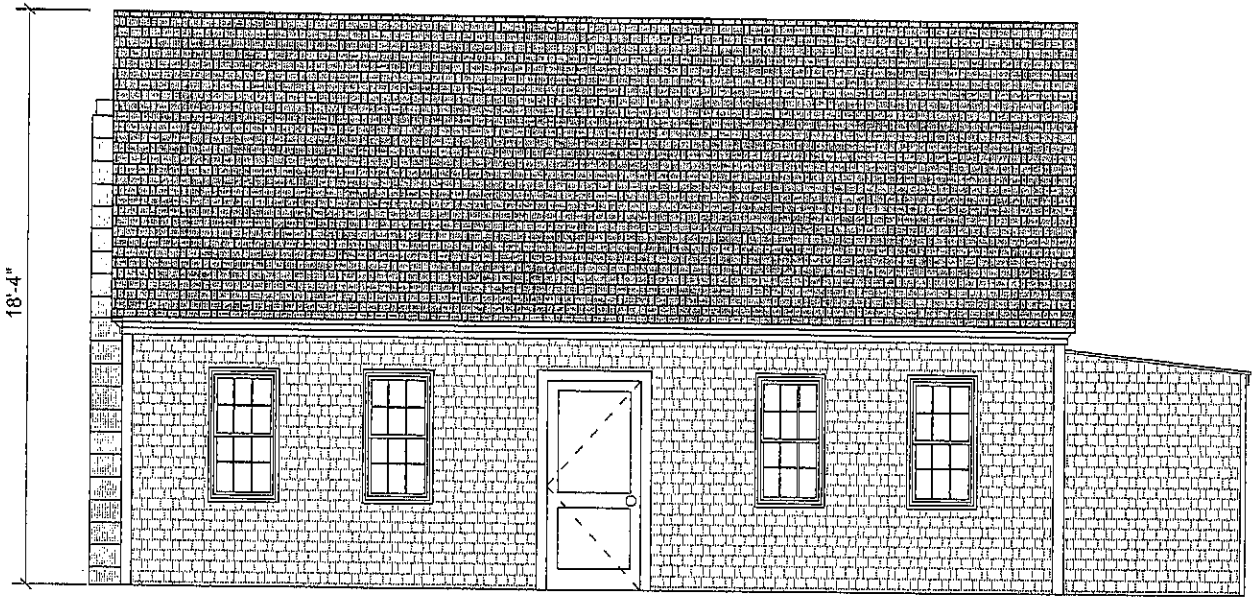
Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse
Existing Conditions East Elevation

Project North
Project Number m0234.01
Date March 24, 2003
Scale 1/4" = 1'0"
Sheet
E-106



MAYO BEACH NORTH ELEVATION
EXISTING CONDITIONS

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Project
Wellfleet Bathhouse

Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA
0

Drawing
Design Proposal
Mayo Beach Bathhouse
Existing Conditions North Elevation

Project North

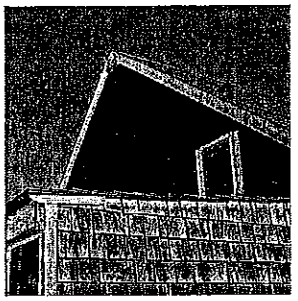
Project Number m0934.01

Date March 24, 2003

Scale 1/4" = 1'0"

Sheet
E-107

4. Conceptual Design



1. Considerations

1. Utilize the existing footprint.
2. Peak beach usage occurs during summer from the hour before to the hour after high tide. Because there are no specific beach population numbers on record according to Susan Thomas, the Wellfleet Beach Manager, we have estimated 75 beach users per day during peak.
3. In addition to the beach users, the renovated facility and system should be able to accommodate the recreational users of baker's Field and Playground. Becky Rosenbaum, the Wellfleet Recreation Director, estimates 400-500 recreational users per day of the Baker's Field and playground.
4. Helen Purcell of the Wellfleet Historical Society indicates there does not appear to be any historical restrictions on the Mayo Beach structure limiting or affecting it to be used as a bathhouse.
5. We anticipate the septic field will be located in the parking lot where the soil is sandy. The design flow for this facility (under Title 5) based on the estimated type and population of users and is not a function of building fixtures. The design of the septic system to support a bath house will be the same for either of the options proposed. Design Criteria:

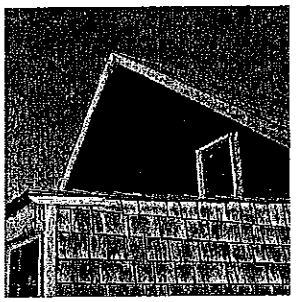
Persons/ bathers
75 @10 gpd/person (bathers)
Persons/ playground patrons
500 @ 5 gpd/person (playground patrons)

Total Flow75 x 10 + 500 x 5=
3250 gallons per day

Estimated system cost:
$40,000 to $50,000

6. Utilize the existing well for wash down and water closets, if possible.
7. Provide exterior cold showers, somewhat similar in concept to those at Marconi Beach.
8. Prepare two simple conceptual design renovation scenarios (one exclusively as a bath house and one to additionally accommodate the Town of Wellfleet's Shellfish Department) as per the attached.
9. Scheduling:
    1. Anticipates a spring 2004 construction, assuming The Department of Housing and Community Development (DHCD) Removal of Barriers grant award occurs by Dec 2003/Jan 2004.
    2. Anticipate 4-6 weeks minimum for approval of both Conservation Commission (including DEP) and Board of Health hearings and approvals after receiving (DHCD) grant approval.

4. Conceptual Design (cont.)



2. OPTION A:

1. Description – Option A (see attached sketch A) proposes to renovate the building structure exclusively as a bathhouse, maximizing the quantity of fixtures within the existing building footprint, for use by the beach and Baker's Field recreational users. Areas are designated for male/female changing areas and cold water showers. Clearances, layouts, and fixtures are addressed for compliance with the Massachusetts Architectural Access Board. The bathhouse will be summer seasonal only, with no heat provided, and will be shut down during the off-season. The restroom entries are oriented towards the parking and beach access path, while the shower entries are oriented towards the beach.

2. Square Footage

1. Women's: Approximately 311 SF
2. Men's: Approximately 311 SF

3. Plumbing Fixtures (according to Massachusetts Plumbing Code 248 CMR, Public Beach Bathing minimum requirements are one water closet per 200 females and one water closet/urinal per 500 males):

1. Women's Restroom:
6 water closets
4 lavs
1 floor drain
1 hose bib

2. Men's Restroom:
3 water closets
2 urinals
4 lavs
1 service sink
1 floor drain
1 hose bib

3. Women's Shower:
3 cold water showers
1 floor drain

4. Men's Shower:
3 cold water showers
1 floor drain

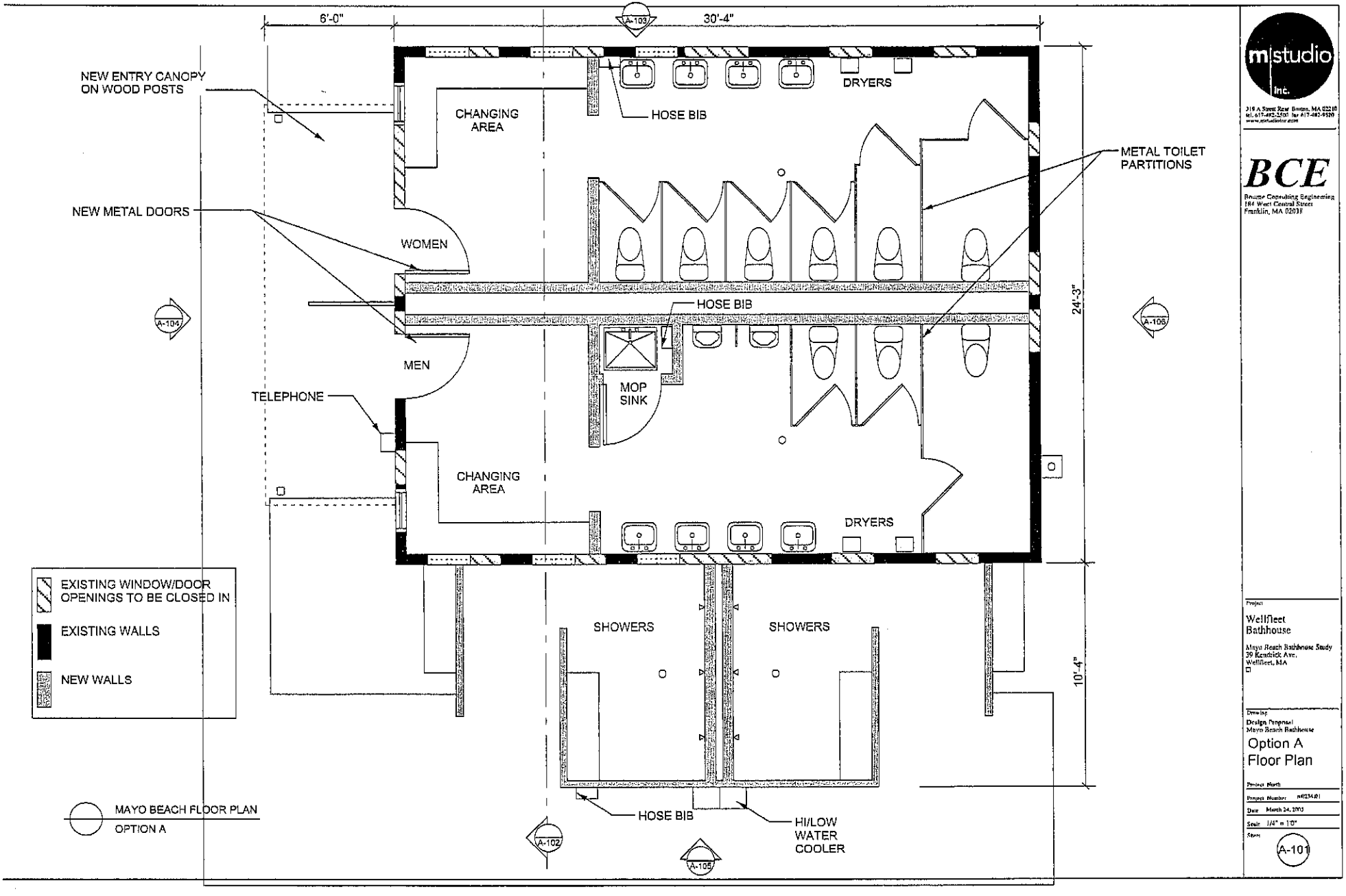
5. Misc:
1 hose bib
1 high/low water cooler

4. Preliminary Construction cost estimate:

1. Based on industry standard square foot estimates of $90/sf for a renovation, the estimated preliminary construction cost estimate for Option A would be approximately $65,700 for 730 gross square feet.

5. Codes:

1. Massachusetts State Building Code 780 CMR use group - B.
2. Massachusetts Plumbing Code 248 CMR buildingclarification–Bathing(PublicBeaches).
3. Massachusetts Architectural Access Board 521 CMR.



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Project
Wellfleet Bathhouse

Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse

Option A
Floor Plan

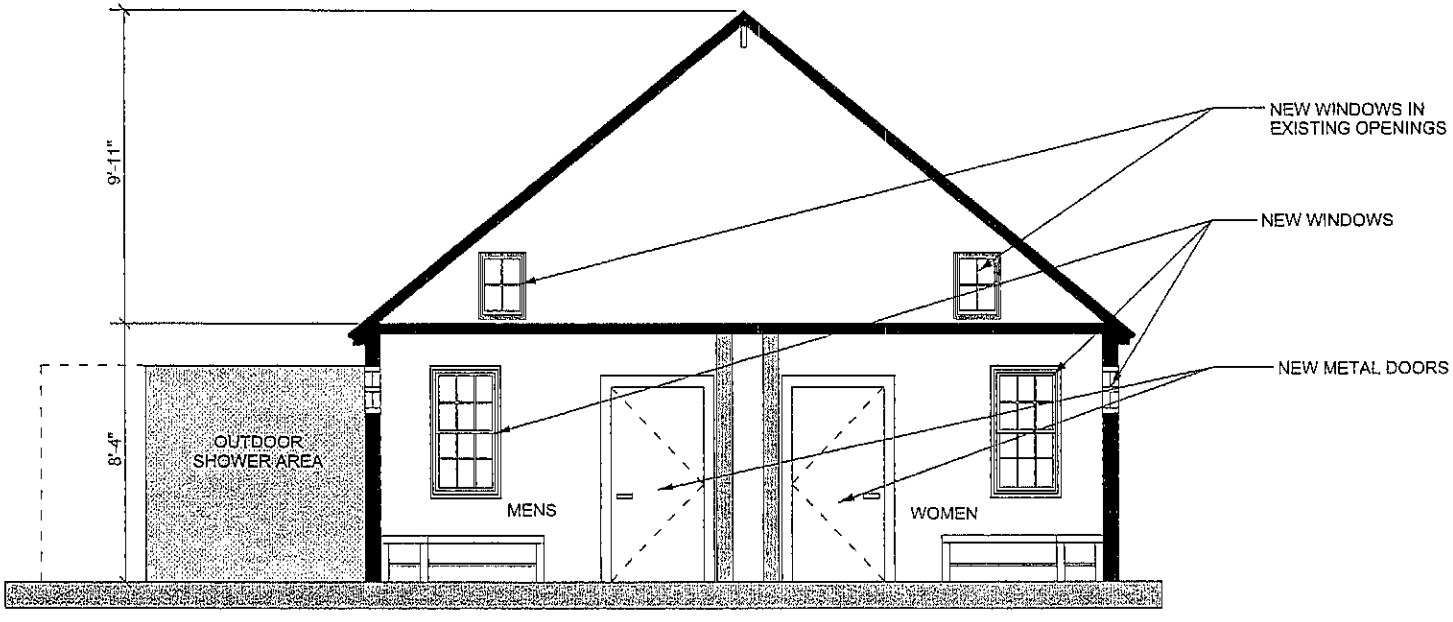
Project North

Project Number n4234.01

Date March 24, 2005

Scale 1/4" = 1'0"

Sheet A-101



MAYO BEACH SECTION
OPTION A

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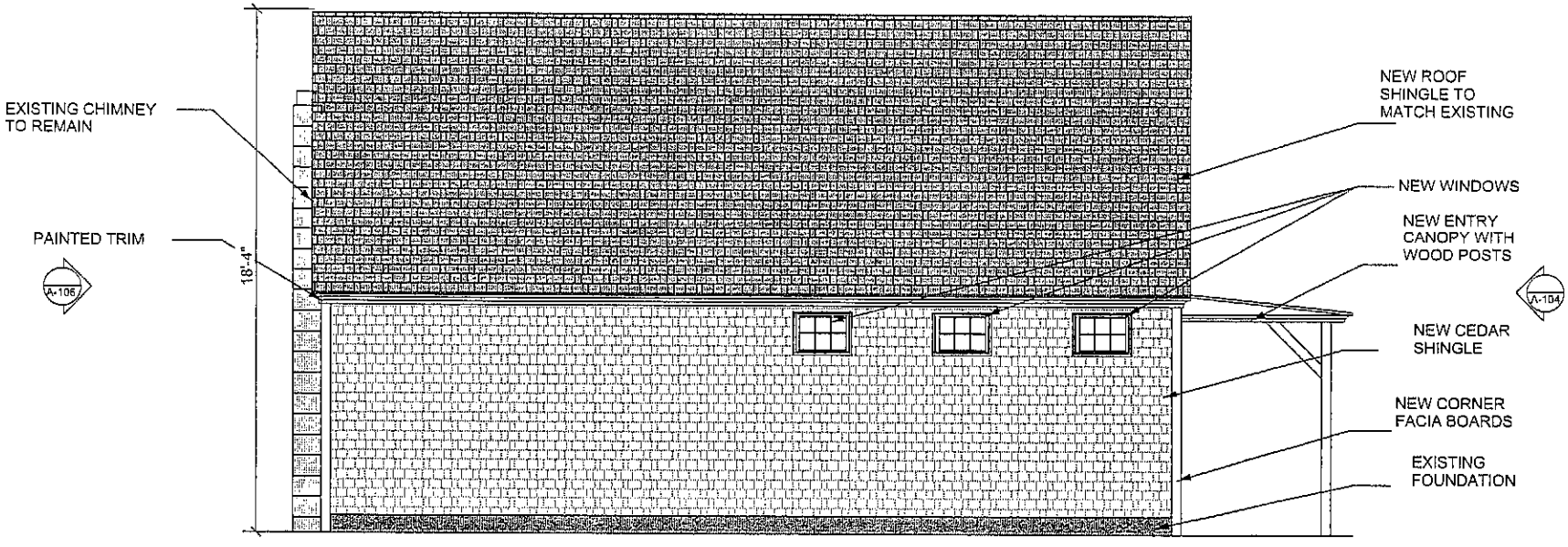
Project
Wellfleet Bathhouse
Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse
Option A
Section

Project Name
Project Number m0254.01
Date March 24, 2003
Scale 1/4" = 1'0"
Sheet
A-102



MAYO BEACH OPTION A
NORTH ELEVATION

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tel. 617-482-2500 fax 617-482-9570
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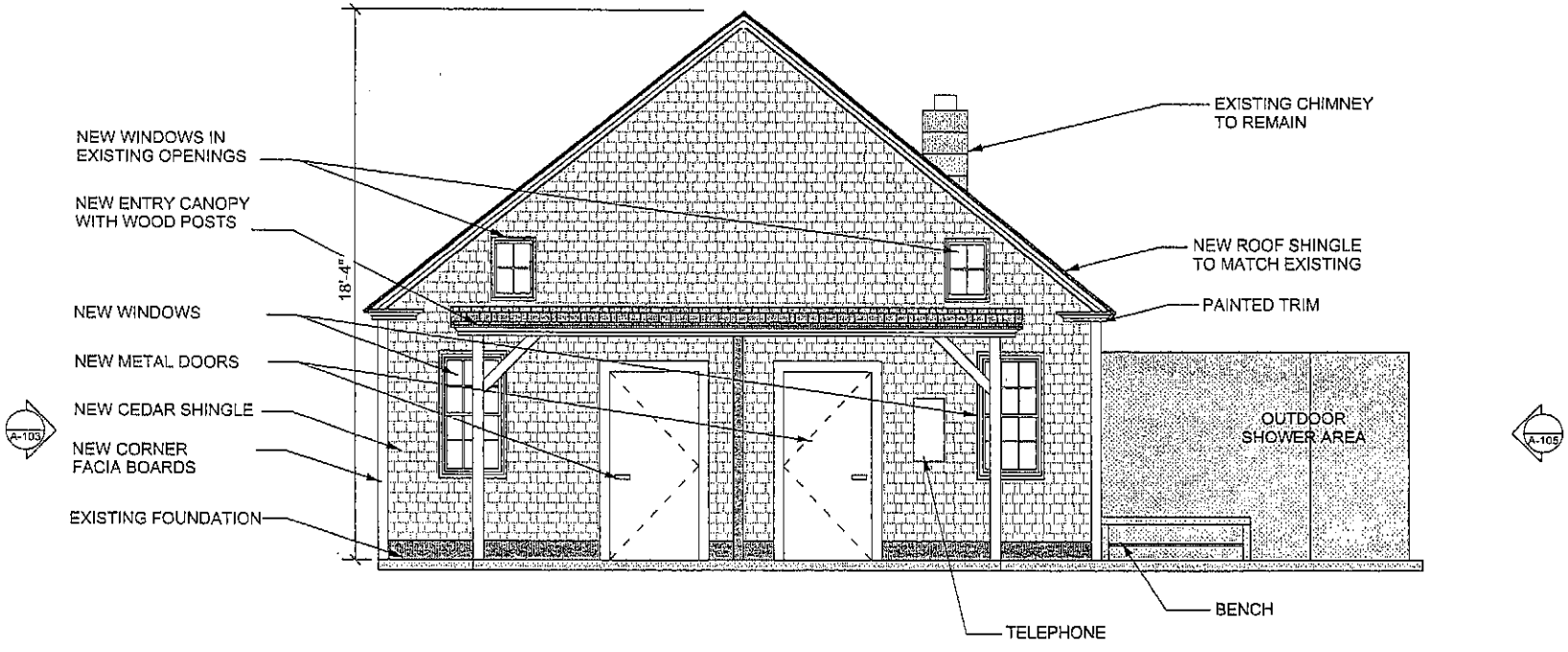
Project
Wellfleet Bathhouse
Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse
Option A
North Elevation

Project North
Project Number m02341
Date March 24, 2010
Scale 1/4" = 1'0"
Sheet A-103



MAYO BEACH OPTION A

WEST ELEVATION

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Project
Wellfleet
Bathhouse

Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse

Option A
West Elevation

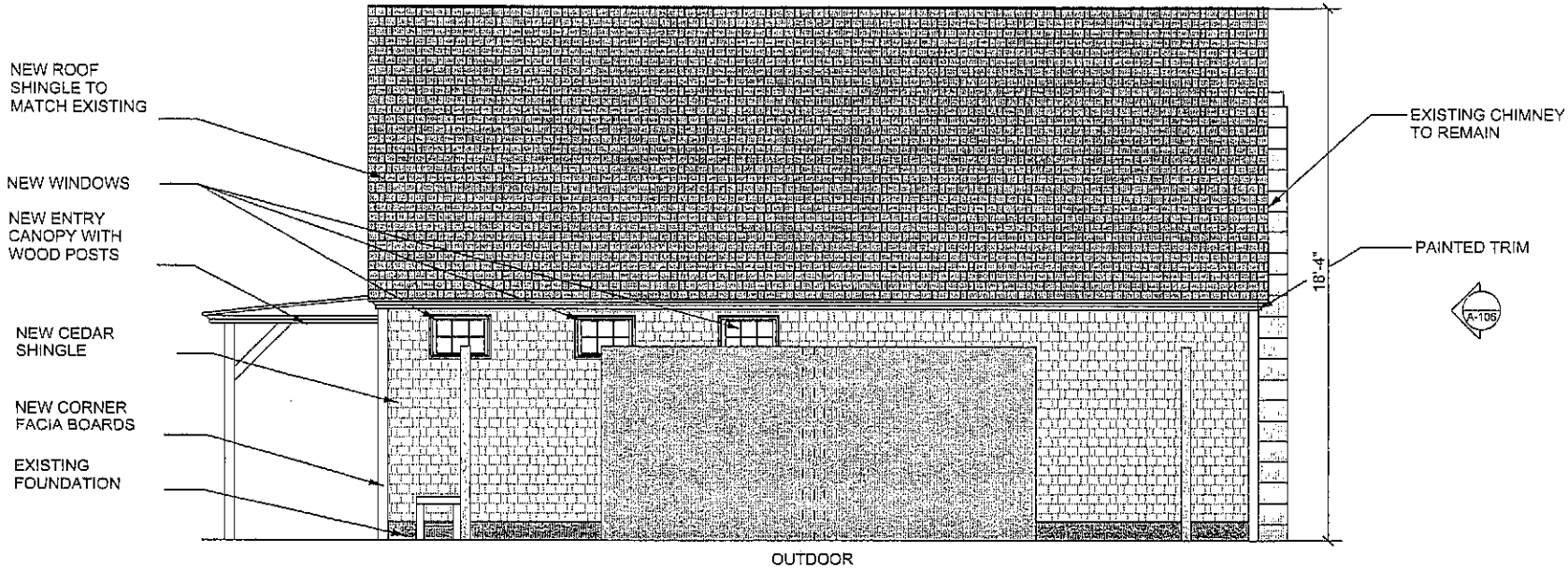
Project North

Project Number m0234.01

Date March 24, 2003

Scale 1/4" = 1'0"

Sheet
A-104



MAYO BEACH OPTION A
SOUTH ELEVATION

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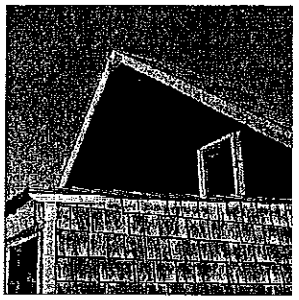
Project
Wellfleet Bathhouse
Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse
Option A
South Elevation

Project North
Project Number m0234.01
Date March 24, 2003
Scale 1/4" = 1'0"
Sheet
A-105

4. Conceptual Design (cont.)



3. OPTION B:

1. Description - Option B (see attached sketches B-1) proposes to renovate the building structure for a bathhouse and for use by the Town of Wellfleet's Shellfish Department. The bathhouse portion will be summer seasonal only, with no heat provided, and will be shut down during the off-season. Yet, this scenario proposes one public accessible unisex handicap toilet room for year round public use as part of the heated Shellfish Department area. The program includes Shellfish Department storage and work space on the ground floor. Dormers are to be added to the second floor to accommodate use of the existing unfinished attic space as an office for the Shellfish Department. An Outdoor storage shed is proposed on the east side to replace the existing west side shed. This is mainly to provide three season storage for the Shellfish Department's All Terrain Vehicle.

The bathhouse area and fixture counts have been reduced compared to Option A. However, given the estimated number of users, the fixture counts still exceed the one water closet per 200 females and one water closet per 500 males minimum required for Public Beach Bathing according to Massachusetts Plumbing Code 248 CMR.

Being a public facility, the second floor would need to be ADA accessible. A limited use vertical lift seems most practical in this situation. However, given the potential that this renovation project may not be financially feasible due to the addition of a lift, there is a possibility it's requirement could be appealed.

Attached are three scenarios for Option B. The first (B-1) is for full ADA compliance for access to the second floor using a vertical lift.

2. Square Footage

1. B-1 (ADA compliant):

1. Women's:	175 SF
2. Men's:	152 SF
3. Unisex	45 SF
4. Shellfish entry/storage	195 SF
5. Shellfish office	591 SF
6. Total Net SF	1158 SF

3. Plumbing Fixtures (according to Massachusetts Plumbing Code 248 CMR, Public Beach Bathing minimum requirements are one water closet per 200 females and one water closet/urinal per 500 males):

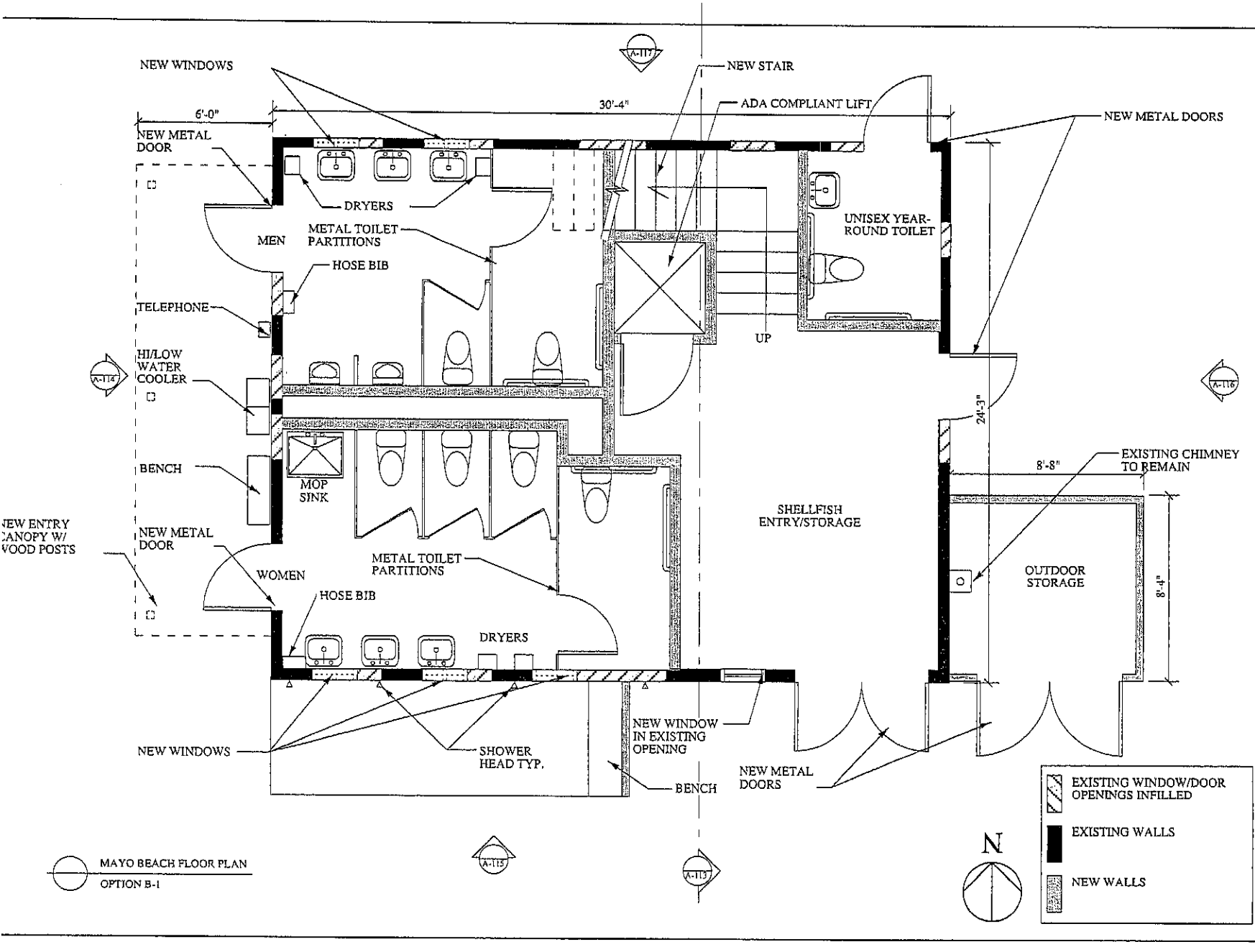
1. Women's Restroom:
   - 4 water closets
   - 3 lavs
   - 1 service sink
   - 1 floor drain
   - 1 hose bib
2. Men's Restroom:
   - 2 water closets
   - 2 urinals
   - 3 lavs
   - 1 floor drain
   - 1 hose bib
3. Showers:
   - 3 cold water showers
   - 1 floor drain
4. Unisex restroom:
   - 1 water closet
   - 1 lavs
5. Misc:
   - 2 hose bibs
   - 1 high/low water cooler

4. Preliminary Construction cost estimate

1. The following are estimated preliminary construction cost estimates based on industry standard square foot estimates (excludes septic):
   1. B-1 (ADA compliant) – approximately $160,000 ($90/sf +$25,000 lift) for 1492 gross SF.

5. Code:

1. Massachusetts State Building Code 780 CMR use group - B.
2. Massachusetts Plumbing Code 248 CMR building clarification – Bathing (Public Beaches).
3. Massachusetts Architectural Access Board 521 CMR.



NEW ENTRY CANOPY W/ WOOD POSTS

MAYO BEACH FLOOR PLAN

OPTION B-1

m|studio inc.

BCE

Bourne Consulting Engineering
184 West Central Street
Franklin, MA 02038

Project
Wellfleet Bathhouse

Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse
Option B-1
1st Floor Plan

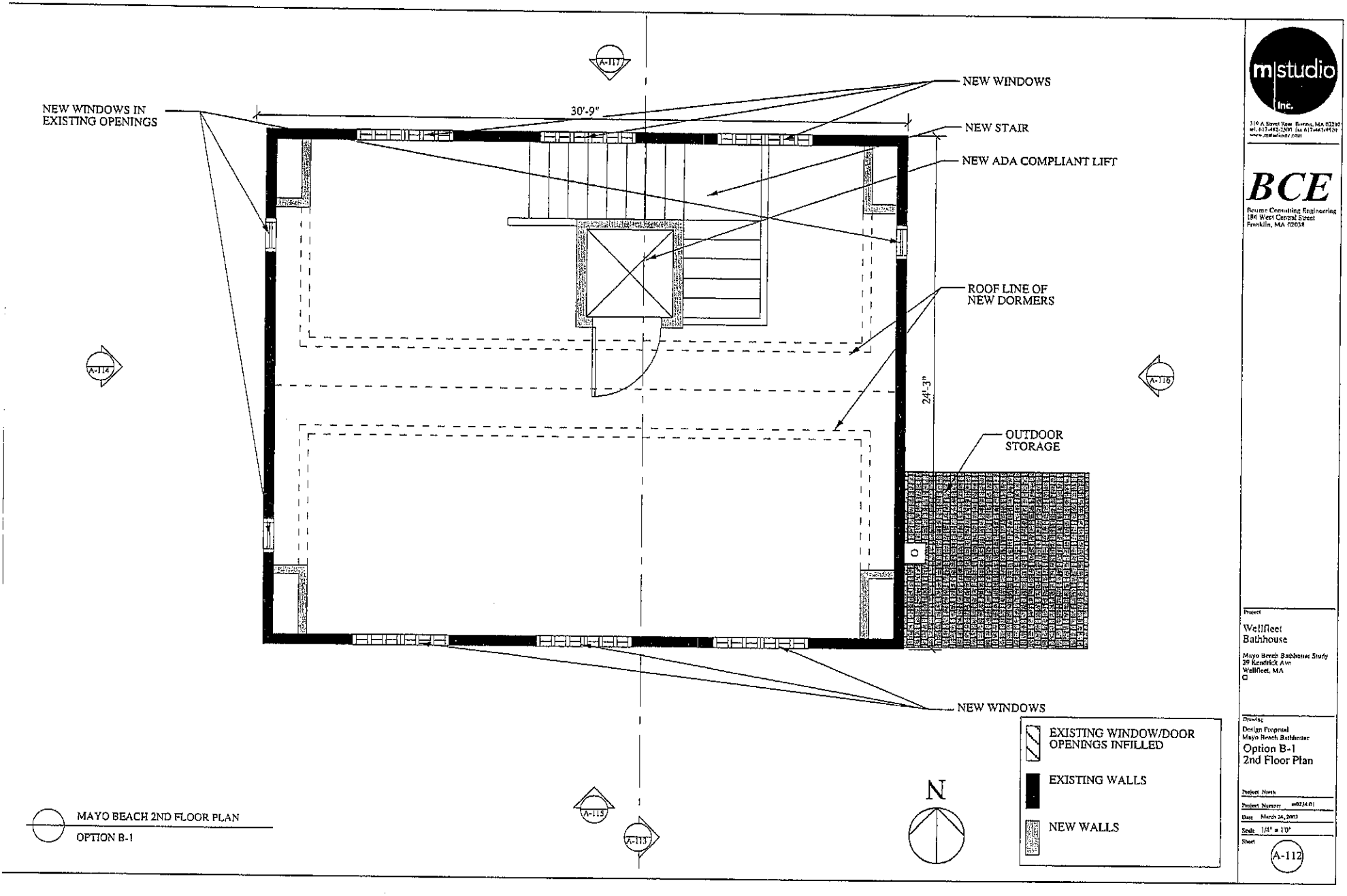
Project North

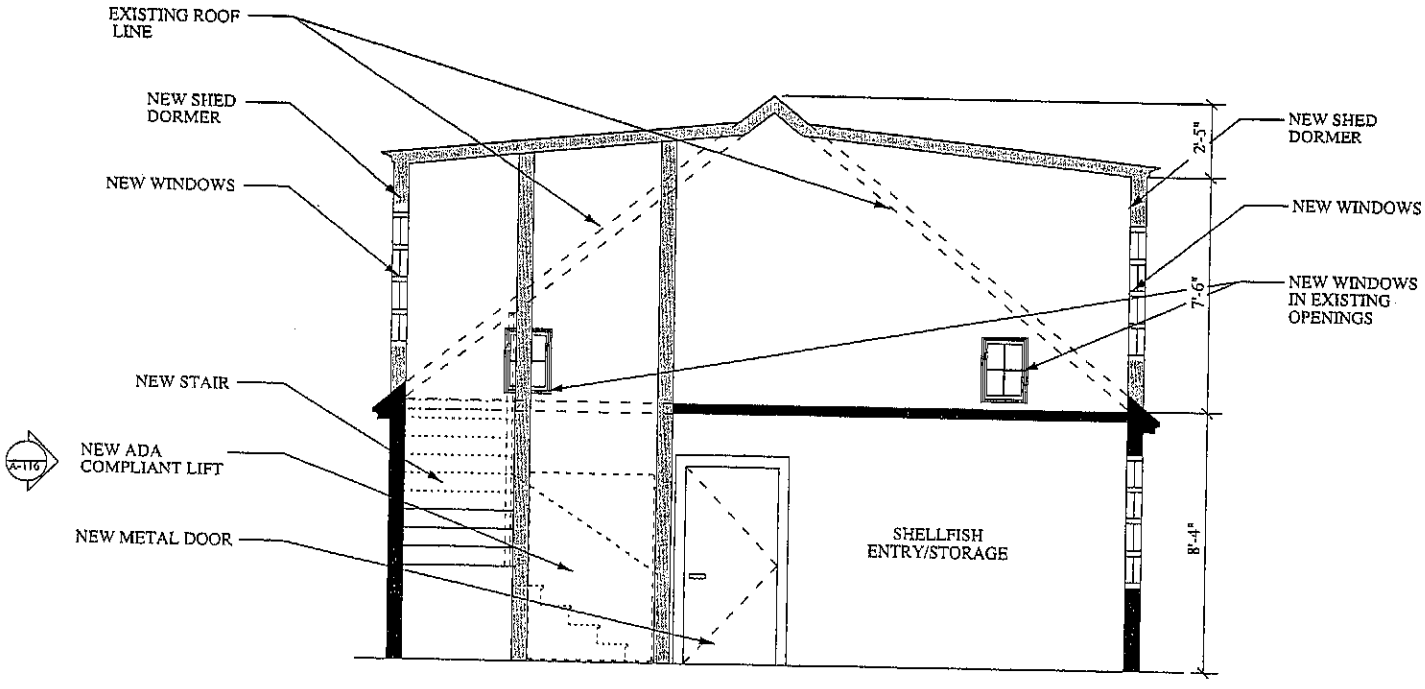
Project Number m02.34.01

Date March 24, 2003

Scale 1/4" = 1'0"

Sheet A-111


NEW WINDOWS IN EXISTING OPENINGS
30'-9"
NEW WINDOWS
NEW STAIR
NEW ADA COMPLIANT LIFT
ROOF LINE OF NEW DORMERS
24'-3"
OUTDOOR STORAGE
NEW WINDOWS
A-117
A-114
A-116
A-115
A-113
N
EXISTING WINDOW/DOOR OPENINGS INFILLED
EXISTING WALLS
NEW WALLS
MAYO BEACH 2ND FLOOR PLAN
OPTION B-1
m studio inc.
BCE
Bourne Consulting Engineering
184 West Central Street
Franklin, MA 02038
Project
Wellfleet Bathhouse
Mayo Beach Bathhouse Study
39 Kendrick Ave
Wellfleet, MA
Drawing
Design Proposal
Mayo Beach Bathhouse
Option B-1
2nd Floor Plan
Project North
Project Number
Date March 24, 2003
Scale 1/4" = 1'0"
Sheet
A-112



MAYO BEACH SECTION
OPTION B-1

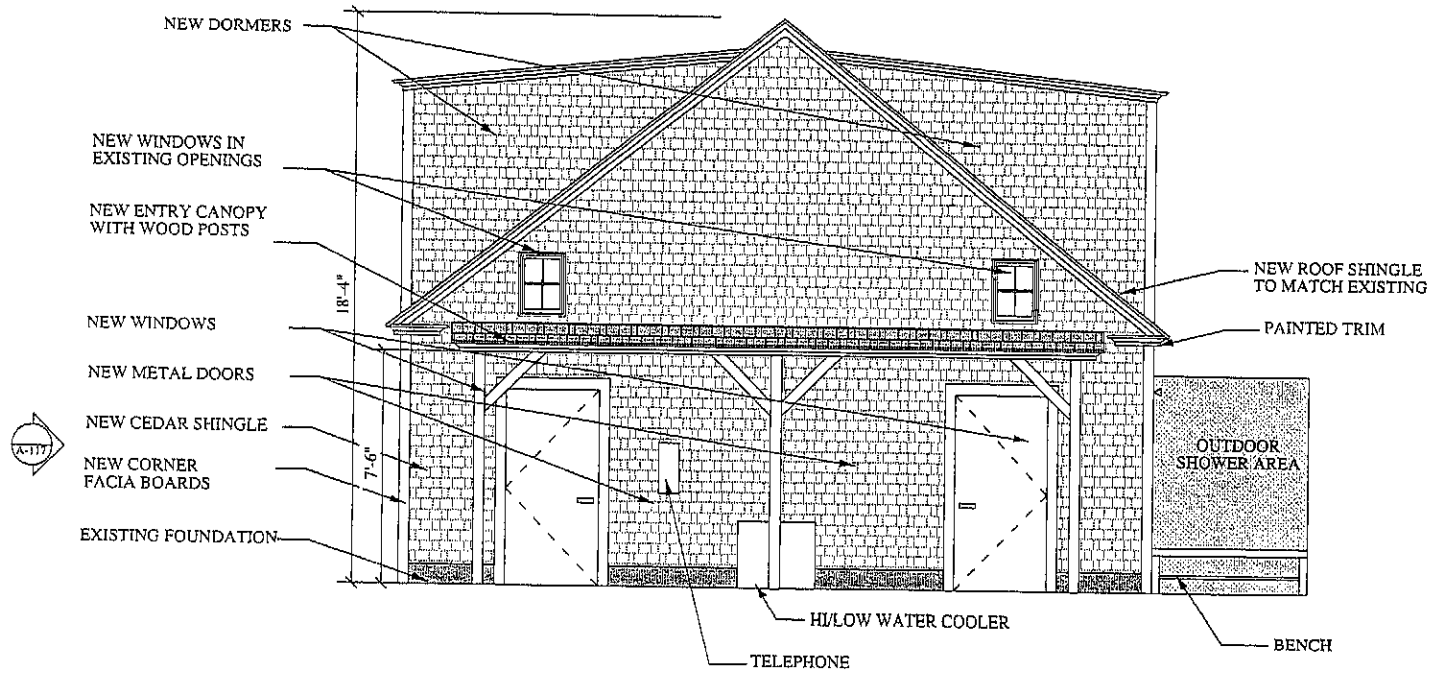
m studio inc.
219 A Street Rear Boston, MA 02210
tel. 617-482-2500 fax 617-482-9520
www.mstudioinc.com

BCE
Bourne Consulting Engineering
184 West Central Street
Franklin, MA 02038

Project
Wellfleet Bathhouse
Mayo Beach Bathhouse Study
39 Kendrick Ave
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse
Option B-1
Section

Project North
Project Number m0234.01
Date March 24, 2003
Scale 1/8" = 1'0"
Sheet
A-113



MAYO BEACH OPTION B-1

WEST ELEVATION

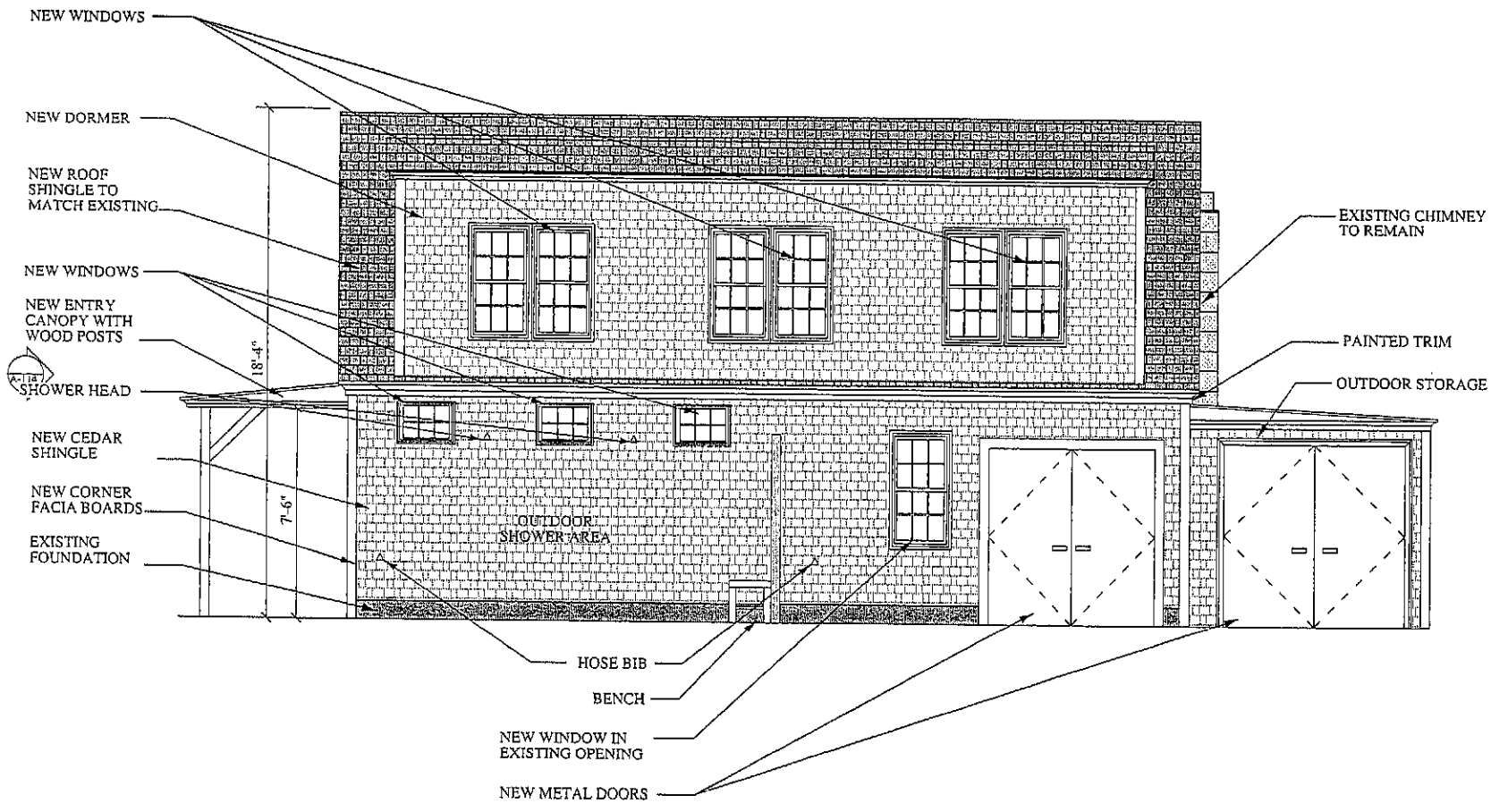
m studio inc.
319 A Street East Boston, MA 02210
tel. 617-482-2500 fax 617-482-9520
www.mstudioinc.com

BCE
Bourne Consulting Engineering
184 West Central Street
Franklin, MA 02038

Project
Wellfleet Bathhouse
Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse
Option B-1
West Elevation

Project North
Project Number m0234.01
Date March 24, 2003
Scale 1/4" = 1'0"
Sheet A-114



MAYO BEACH OPTION B-1
SOUTH ELEVATION

m|studio inc.

319 A Street Rear Boston, MA 02210
tel. 617-482-2500 fax 617-482-9520
www.mstudioinc.com

BCE

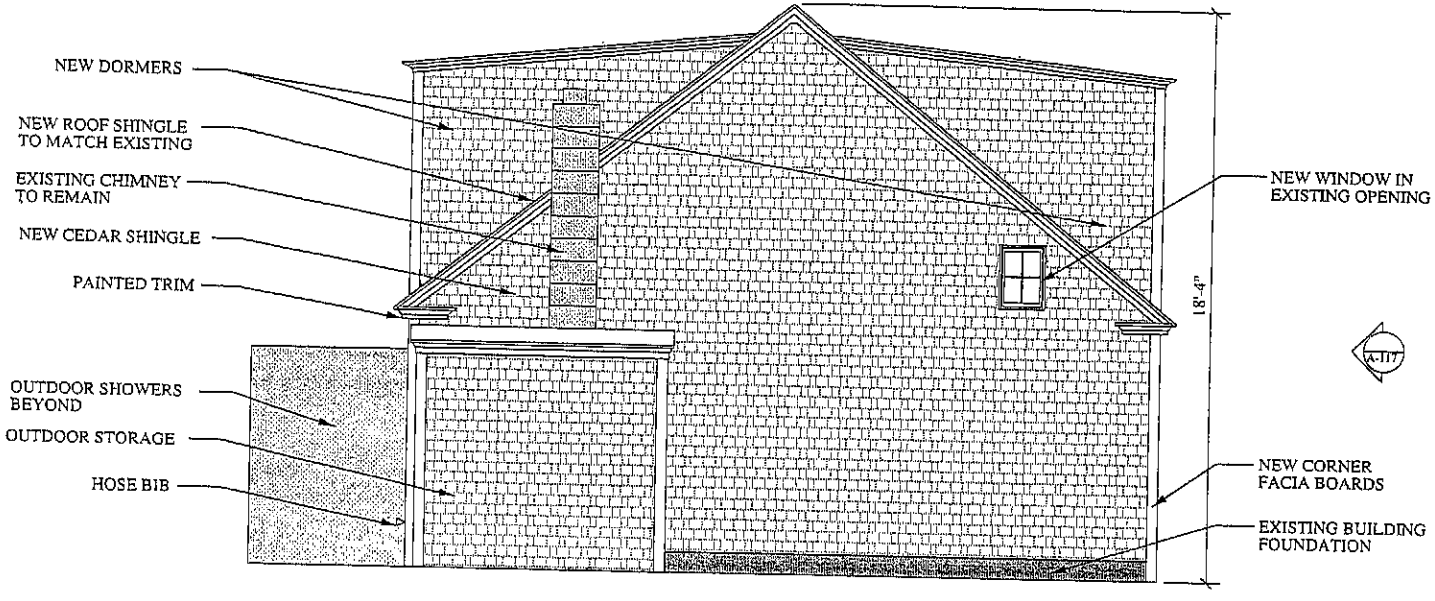
Bourne Consulting Engineering
184 West Central Street
Franklin, MA 02038

Project
Wellfleet Bathhouse

Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse
Option B-1
South Elevation

Project North
Project Number 0023M.01
Date March 24, 2003
Scale 1/4" = 1'0"
Sheet A-115



MAYO BEACH OPTION B-1

EAST ELEVATION

m|studio inc.
319 A Street Base Boston, MA 02210
tel. 617.482.2500 fax 617-482-9520
www.mstudioinc.com

BCE
Routhe Consulting Engineering
184 West Central Street
Franklin, MA 02038

Project
Wellfleet Bathhouse
Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse
Option B-1
East Elevation

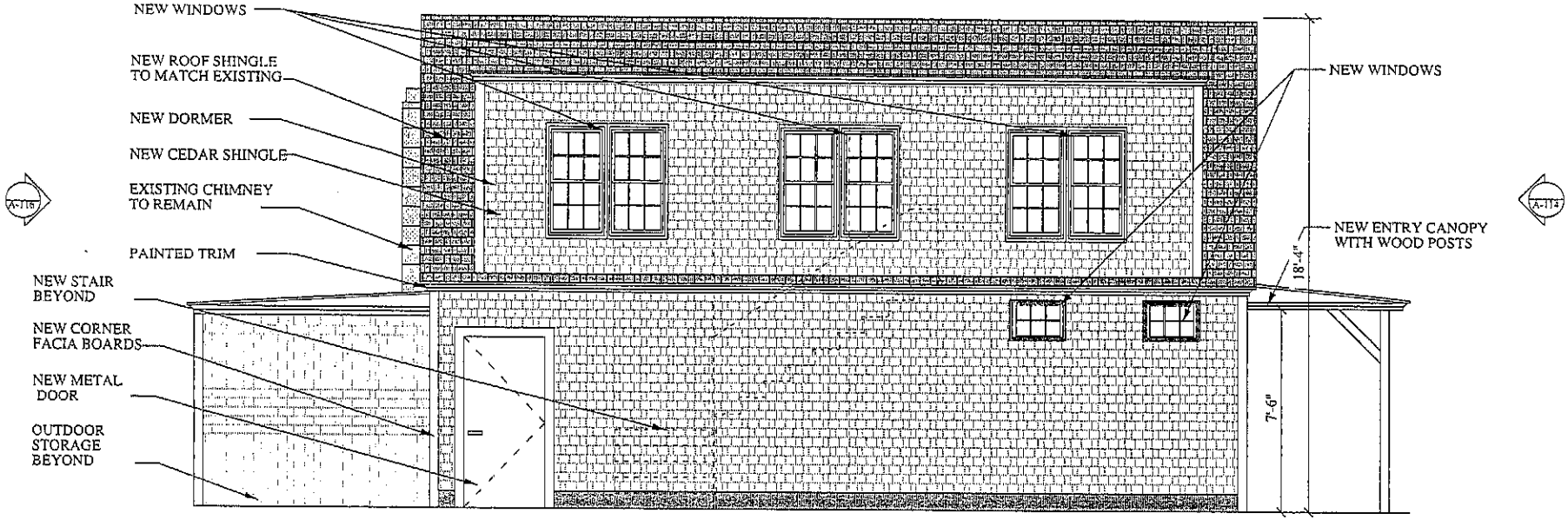
Project North

Project Number 06034.01

Date March 24, 2003

Scale 1/4" = 1'0"

Sheet
A-116



MAYO BEACH OPTION B-1

NORTH ELEVATION

m|studio inc.
219 A Street Rear Boston, MA 02210
tel. 617-482-2501 fax 617-482-9526
www.mstudioinc.com

BCE
Bourne Consulting Engineering
184 West Central Street
Franklin, MA 02038

Project
Wellfleet Bathhouse
Mayo Beach Bathhouse Study
39 Kendrick Ave.
Wellfleet, MA

Drawing
Design Proposal
Mayo Beach Bathhouse
Option B-1
North Elevation

Project North

Project Number m0234.01

Date March 24, 2003

Scale 1/4" = 1'0"

Sheet A-117

5. Conclusions/Recommendations

1. Considering the following items:
   - potential expansion of the project to tie the Baker's Field Recreation building in to Mayo Beach's future septic system
   - As per the Town Manager's estimates the water supply should be ample for the proposed schemes
   - planned renovation of the Town Pier with a potential of increase of boat slips
   - needing a "home" for the Wellfleet Shellfish Department

the Town of Wellfleet may want to consider the development of an overall master encompassing Mayo Beach, Town Pier, and Baker's Field. This plan should assist the town to address present and future needs by developing a program to include defining building and area functions and purpose, improve access among the areas, efficient usage of space, sharing of amenities, etc. The undertaking of an overall masterplan will provide the Town with a clear framework for the future use and management of the Mayo Beach, Baker's Field and Town Pier amenities.

The Town of Wellfleet will be undertaking a grant writing application process to secure project financing.