REVELATION ON THE BANKS OF THE MERRIMACK:
Design Studies for the Newburyport Waterfront

By

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ABSTRACT

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Submitted to the Department of Architecture on June 19, 1979
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The town of Newburyport, Massachusetts, is currently
attempting to attract developers to make proposals on a five-
acre tract of Merrimack River waterfront, for a mixed-use
development centered on a motel and restaurant. This thesis
comprises a design proposal for the site and a documentation
of the design process.

Thesis Supervisor: Robert Slattery
Title: Associate Professor of Architecture
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Special thanks to Robert Slattery, whose guidance and support helped get me through this thing,

To Jack Myer, who, with Bob Slattery, gave me my first taste of architectural design,

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"Once you have given up the ghost, everything follows with dead certainty, even in the midst of chaos. From the beginning it was nothing but chaos: it was a fluid which enveloped me, which I breathed in through the gills. In the substrata, where the moon shone steady and opaque, it was smooth and fecundating; above it was a jangle and a discord. In everything I quickly saw the opposite, the contradiction, and between the real and the unreal the irony, the paradox. I was my own worst enemy."

--Henry Miller, The Tropic of Capricorn
1. PRELIMINARIES
The idea for this thesis grew from a conversation with Professor Robert Slattery last fall. He suggested, watching me struggle through various proposals involving design projects, that I try to do something about the way I design—which, in effect, is what I have done. The thesis period has involved doing a design project—including looking at built references, analyzing the problem, putting forth various schematic proposals, and developing one of them—and assembling in one place the information associated with that process. The value of the exercise was primarily for me; this document is a record of the process.
THE PROJECT

The site I chose for my explorations was the central waterfront area of Newburyport, Massachusetts, a town of 16,000, about 40 miles north of Boston. Situated at the mouth of the Merrimack River, Newburyport was once an important trading and shipbuilding port, on the order of importance of Salem and Boston. However, the trade embargoes of the War of 1812 and later the advent of industrialization and the railroad diminished the town's economic importance and it underwent a long period of decline, leaving derelict many buildings and empty lots downtown and especially on the waterfront, which no longer played any role of value to the town's economic or social life.

Urban renewal came to Newburyport in 1971, with the implementation of a plan to revitalize the central business district and waterfront area. Pressure from citizen groups and historical societies modified the original plan to demolish most of the old Federalist buildings in the area, and as a result many were saved and renovated for commercial and residential use. Public improvements such as widened sidewalks, improved lighting, landscaping, and new parking areas were part of the revitalization plan, now largely complete in the business district.

The waterfront area is now under development. The area was cleared of all old structures except for those fronting on Merrimack Street. A seawall and public walkway have been built along the water edge, and a plaza is proposed for the area.
between the firehouse (soon to be converted to public use) and the waterfront. The Redevelopment Authority has divided the land into three parcels to offer to developers—one on each side of the proposed plaza and the third the air rights over the plaza, which could be built to connect buildings on either side.

The Authority has put together a package of information for developers, portions of which are excerpted in the appendix to give greater detail to the information sketched out above. Included in the excerpts are a list of architectural guidelines, to which I tried to render some service during the design process.
City of Newburyport: Waterfront Redevelopment Parcels

Parcel: A
Parcel: B
Parcel: C

Notes:
- All boundaries are approximate and may be subject to changes.
- Scale in feet.

Scale: SA
Scale Association Inc.
44 Preuss Street, Nantucket, MA 02554
THE SITE

The Merrimack widens just downstream from the waterfront site into a broad estuary before its narrow mouth through the sand bar of Plum Island. There is a feeling of being practically on the open sea when one looks east, toward Plum Island and the ocean just beyond. Upstream the river narrows and takes on a more distinctly riparian quality. However, much of one's view of this from the waterfront site is blocked by the highway and railroad bridges. Directly across the river one's view is of small woodframe houses and boat docks, and boats anchored in the river. Although important from some distance inland, from Market Square for instance—to give a sense of being in town yet near the water—it is not so important an orientation for view right on the water's edge. Were a choice to be made, it seemed to me that the wide, expansive seaward view would be preferred. This orientation toward view was an important factor in site design, and continued to direct many decisions at the building scale.
The seaward view

Upriver
Upriver

The view across, 
from the waterside

and from Market Square
Access to the site would be either by car, parked on site, or by foot from the downtown area. The public promenade along the water is an important pedestrian pathway, but only as a local event. That is, there would be, one would imagine, plenty of pedestrian traffic along the promenade, but confined to the boundaries of the site. People would be strolling along the waterside just to be there, not passing through on their way somewhere else. This left the primary pedestrian access coming from or going to the parking or the downtown area. Developing this access was an important feature in each scheme tried.

The remaining buildings on the south edge of the site have all been renovated to new uses, primarily retail on the ground floor and residential or office above. This reflects the general zoning of much of the downtown area’s multistory buildings. To the west are marina facilities, mostly boat sales and supplies. There is a boat launching ramp on the site’s western water edge. To the east is a lumberyard. All of these businesses seem active and were assumed to continue to be so for the foreseeable future.
THE PROGRAM

The information package prepared by the Redevelopment Authority for developers includes the following program guidelines, developed in part from a market analysis for the area which focused on motel development. Market analysis recommendations appear in parentheses:

Principle Uses:
-- Waterfront "Inn" with conference and function and athletic facilities (70 rooms)
-- A major "theme oriented" restaurant (200 seats/5000 sf)
-- Retail uses to complement existing retail (3000 sf)
-- Commercial/recreation activity such as a quality interpretation facility/museum featuring a comprehensive theme related to Newburyport's maritime history (no size recommended)

Secondary Uses:
-- Professional and general offices on the upper levels, although some office uses could be considered on the ground floor
-- Residences, either rental or condominium units.

The guidelines recommended no square footages other than to state that overall development gross square footage probably could not exceed 150,000 sf, given present market conditions.

A long-range planning study for the Newburyport-Salisbury harbor area provided some input not mentioned in the Redevelopment Authority's package. This study recommended building up the area's fishing industries by creating an ice-free docking facility to the east of the development area, just past the lum-
LAND UTILIZATION
Newburyport Salisbury Harbor Area

MARINE USES
RECREATION
yacht club, marine, sport fishing and boating facilities

RECREATION / COMMERCIAL
marine supplies, construction, repair and related services

COMMERCIAL
commercial fishing or sea-food processing

PUBLIC SPACE

HARBOR SUPPORTIVE USES
PUBLIC PARKING
SHOPPING AND SERVICES

PROPOSED DEVELOPMENTS
--- REVITALIZATION AREA
• COMMERCIAL FISHING
--- ACCESS ROAD
= PUBLIC RIGHT OF WAY

SCALE IN FEET
Another recommendation was to revitalize the area to the west of the site by augmenting the existing mix of boatyards with a marina of at least 75 slips. It was thought that such a marina might be incorporated into any major redevelopment scheme.

Taking this into account, I felt an appropriate program to begin working with included some marina facilities, or at least an indication of how to dock a number of boats. The rest of the program I left alone, other than to figure out a number of possible parking spaces—300—from the discussion in the developer’s kit.

As it was to turn out, a large portion of the program assumptions served merely to assign potential uses to building masses with which I organized the site. The motel and restaurant, being the largest and most important program elements, received more detailed attention once the site organization was worked out. My major concern was for a form that might accommodate the various programmed uses, but that would not necessarily be dictated by them. The project was not a straightforward problem-solving exercise of generating enough building volume to take care of a program, but rather a matter of finding a physical form that responded to a wide range of issues—site, views, access, "image"—as well as solving the basic problem of how to enclose the necessary space. The form decisions could then inform the program decisions, as well as the reverse.
Newburyport's pre-industrial waterfront provided an early and sustaining image of reciprocal land/water uses and built definitions, qualities of which it seemed important not to lose.
ASSUMPTIONS

In my original thesis proposal, I had thought that part of my early work would involve clarifying an image of the place I was to design, so as to help guide the process. This "image" came into being very slowly, as it turned out, and more toward the end than the beginning of the project. I tended to work more from a set of assumptions, some vague, others quite clear, that I had made regarding the physical qualities of the place than from any clear image. Some of these assumptions were clear to me at the outset, others emerged only after some work exposed them in the way they influenced the decisions I had made. A few of the early and clear assumptions I will list here; others will be alluded to in subsequent discussion of the schemes:

The waterfront should be thought of as public property, accessible and free for everyone to use and experience. Of course the existing public promenade tends easily to reinforce this particular assumption. However, it very quickly occurred to me that part of the public edge might be claimed for private use by building on it, providing that some compensation were made that would mitigate the "lose".

The parcel boundaries drawn up by the Redevelopment Authority exist on paper only, and might be ignored for the purposes of proposing an alternative scheme. The underlying assumption for this and the above statement is that although the guidelines look fairly strict, the town might be willing to adjust their expectations in order to allow some reasonable development, rather than let this valuable parcel of property lie idle forever. Although this seems
to side with the "greedy developer's" point of view, I am taking the position that a bargain could be struck between parties on a good scheme that would benefit everyone. Anyway, the developer-Authority clashes that could result are not my real concern here. I am primarily interested in the design of physical form, as noted in the "Program" section.

The seawall built on the site is assumed as a physical given—to be added to but not subtracted from.

Building orientation should be primarily perpendicular to the river edge, to maintain ease of access to and visual contact with the water from the downtown area.

Surface on-site parking is a necessary way of dealing with the car issue for the present. Although one scheme did explore the massing of a garage, that expense seems impractical. The issue is one that will need to be dealt with in time as land values rise, but in any case it doesn’t impact the present situation.

The new development should be of such a scale that it fits into the context. This is a little difficult to define easily, but it was a major concern throughout the project. The downtown area has a very nice feel to it, scale-wise, and it has the additional distinction of being on the National Historical Register. So the town and the Redevelopment Authority are anxious to see that the whole area doesn't get screwed up by some heavy-handed action down on the waterfront.

State Street
Inn Street Mall
2. DESIGN PROCESS
The first sketch dealt with putting the body of the project out on a long wharf projecting into the river. The idea developed from looking at the long runs of continuous building down State Street toward the river, and was seen as extending this trend some considerable distance into the river—in a sense, acknowledging the thrust of that direction in a very direct way. Slightly more developed, the plan focussed more on the waterside than on any connection with the rest of the town.
An archeological re-creation of how the Newburyport waterfront actually grew was examined for clues as to what might now be done in the same spirit. The wharves of the Boston waterfront were another example. Although these wharves were originally built as loading places for freight vessels, the intensity of the edge was the quality that was important in my eyes—an intensity it seemed worthwhile to try and recapture, albeit for a different use. The marina with its water-related activities is one use that could enliven the waterfront and provide
Commercial and Long Wharf, Boston
a reason for modifying the edge. The need for moorings sheltered from the fairly brisk tidal and river currents is a real one: a small marina across the river includes a breakwater just upstream, which probably also does duty during the winter to shelter the facilities from the heavy icing of the Merrimack. Perhaps also the ice-free fishing facility proposed for the distant future could conceivably share some of the benefit of such a substantial wharf built on the Newburyport shore. Problems of silting, ice or wave damage were considered, but disregarded in the end for lack of any clear answers. It was assumed they could be dealt with in one way or another.
The wharf form, a literal extension of the ground out into the water, came to mind more readily than a pier structure, a platform on piles. The historical association was easy—the old warehouses sat on wharves instead of piers. This was probably an issue of technology in its day—it was easier and cheaper to build solid landfill wharves than to drive a bunch of piles for a pier, given the heavy loads associated with warehouse use. But it was also a form issue for me—the long, running, masonry buildings sit on the longer wharves very much as an extension of the ground. The assumption I carried about how my scheme would be built—long, relatively simple forms, possibly made of brick like the older buildings in Newburyport—carried the same sort of associations with the ground and ground extensions and impelled the wharf, rather than the pier, idea. A building on a pier, it seemed to me, would be much more stick-like and assembled-looking than what I had in mind. It might have been fruitful to push such a line of investigation further as a different kind of form exercise, but as it turned out, I chose not to.

The motel rooms were to be situated above a ground-level restaurant and other commercial establishments, reflecting the general condition of the existing buildings downtown. Access was thought to be exclusively by foot from the parking on either side, with service access to the commercial uses out on the wharf accomplished by running the trucks out as far as necessary.
This first exploration was really primarily a form projection—a loose sketch answering my wish for a strong simple form to organize a seemingly enormous site which demanded a strong response. However, this "strong response", while acknowledging the size and view issues of the site, ignored such problems as access from one's parked car to motel office and one's room. Conflicts were created between pedestrian and service access which, although perhaps really minor and possible to resolve, seemed to require better treatment.
Setting aside the wharf idea temporarily, I turned to examine issues of quality and configuration of the unbuilt space—the outdoor areas. While the first exploration assumed a sort of generalized and loose parallel field-like organization of buildings, I thought the second might look more closely at the possibilities inherent in the curved southern edge of the site and the differing alignments of buildings along that edge. This exploration would at the same time begin to deal with linking the waterfront development and the downtown shopping area, the southern edge of the site being the interface between these two.

The plazas of medieval European towns and cities were, of course, one source of practically subliminal imagery of the unbuilt space formed by buildings aligned along several non-perpendicular directions—the kind of space I wanted to develop here.
The Inn Street Mall, just across Merrimack Street, was a very local example. Essentially an alley which had been "improved" and upgraded to the status of pedestrian mall, it is an important--the main--pedestrian access which, when extended, could be drawn through the site to the water's edge. The Mall is variable in width, and suggests how its continuation might also be varied in dimension, from near parking-lot size through narrow alleyway size.
At the terminus of this now richly-varied pedestrian path was to be the hotel, situated along the water's edge. No wharf this time. A parking structure was sketched in to bulk out the massing and build it up to what I felt was common with the rest of the downtown. The study was actually more about massing and open space than about use, so little was assumed about the program aside from the hotel, except that the pedestrian way would probably be developed as a retail mall, and that office and housing uses would again occupy the upstairs.

Conflicts between pedestrian and vehicular traffic were a feature of this scheme. The parking and service requirements both seemed to call for a road which looped through the site parallel to Merrimack Street, but which unfortunately cut across the pedestrian street, right about at the place where it could have become a larger plaza. Much of the building volume was cut off from direct association with the water—partly as a result of giving the hotel pride of place at the waterside and partly because everything was so tightly massed near the existing buildings and the pedestrian path. There seemed to be lacking a certain sense of place...having made the hotel roughly equivalent to everything else, one was faced with a lack of its identity, which one would imagine would be a prerequisite to its success. Not enough that it was given a prime spot right on the water, but some further intensification of its place and of itself seemed necessary. As Robert Slattery put it, paraphrasing Gertrude Stein, "There's no 'there' there."
Apartment block at the Breslau Werkbund Exhibition, 1929. Site plan.

Ground floor plan.
Some investigation into the work of Hans Scharoun produced a strong reference for organizing the motel, and the beginnings of a solution in the third scheme for the overall site organization. A housing project for the Breslau Werkbund exhibition of 1929, this building dealt with several themes common to the ones I was struggling with—single-loaded corridors, non-parallel geometries, a long, linear form. The two wings of dwelling units, joined by a common space in the middle, suggested how several wings of motel rooms might be joined by a lobby and other common facilities. The way Scharoun turned the parts of the building to organize the open space suggested possibilities of using the different geometries of the existing buildings on my site for the same purpose.

Work with room sizes and corridor lengths as allowed by code gave me some discrete pieces with which to work on the third pass. Incorporating the wharf-like extension of the first scheme with the notion of the tightly defined pedestrian street of the second, a new plan was developed which seemed to deal with both, as well as with parking and service access.
What results is a continuous run of building extending from the back of the fire station out onto a wharf, and containing the hotel and the bulk of the other commercial uses. Other buildings help to define the other side of a public pathway terminating in a plaza on the waterfront. To clarify the organization, the hotel is single-loaded with as many rooms as possible facing the important east view, while parking and service for the hotel and restaurant are on the less positive west side. Several directions are picked up by various parts of the building—to help define the outdoor space and to align parts of the building toward favorable views. In general the building direction is perpendicular to the river edge, for that ease of access and view so highly touted above.

The public promenade at the river edge is kept continuous at this stage, passing at one point under the hotel building, and extending out to the tip of the wharf. It was thought that some small commercial uses might activate the wharf and make it more of a destination in its own right with more to offer than just the view out toward the ocean and back toward the land. Across the embayment I sited the museum, which I thought could be some sort of facility which included an old clipper ship for that "realistic" touch of Newburyport's shipbuilding and mercantile history. It clearly benefits from its waterside position.

The swimming pool located near the firehouse resolved, I thought, the future public nature the firehouse is supposed to take on with the need for the hotel's athletic facilities.
It seemed that some sort of community or health-club facility might be jointly developed, and that pooling the resources of developer and town might produce a more substantial facility than either party could alone. Further investigation convinced me that a more realistic assumption had the hotel building its own facility on its own turf, for its own resident population, and possibly open to the public on a limited basis.

The other buildings that were not hotel or museum were, again, assumed to be some sort of general-purpose mix of ground-floor commercial and upstairs office/work-space/residential. The massing was what was important—how it shaped the outdoor space and extended the Inn Street Mall across Merrimack Street and down to the water. The ground-floor commercial uses seemed to fit with this sort of intention.
3. FINAL DESIGN
FINAL DESIGN

A 1/40"-l' scale massing model provided the way into the final round, giving for the first time a real sense of the building volumes and three-dimensional relationships I was dealing with, at the site scale. Some small changes to the third scheme occurred at this point, as a result of the need to solve the problem in three dimensions.
The decision to stay primarily within a pitched roof vocabulary forced a resolution of the non-rectilinear geometries in hips and valleys, making the overall form more continuous than was suggested in the previous sketches. It really was becoming one long continuous form—at least the hotel portion. The building became much wider at the lobby "junction", a strength to my mind. The swimming pool was moved to the waterside, to strengthen the association one might have between the small and large bodies of water, and to move the pool out of an exposed public position while keeping it virtually "outdoors". This created what I felt to be a serious conflict with the public waterside walkway, but I decided to live with it. That traffic could now pass through the hotel building at some distance from the water on the west side and emerge once again on the waterfront in the plaza on the east side.

I was drawing on several form and use references at this point. Foremost of these were the Boston wharf buildings, such as those on Commercial and Lewis Wharves, and the Quincy Market buildings—for a sense of the scale of this undertaking. The Quincy Market buildings suggested a way to broaden the base of the building by adding a greenhouse system, perhaps even with the garage-type doors the Quincy Market has in such places as the restaurant dining room, to soften the building edge and open it up in good weather. Such a system could rise over the lobby to create a conservatory or atrium. The hotel was acquiring much more the character of an urban hotel, a public place, rather
Palace Pier, Morecambe, England

Hotel lobby, Glacier National Park

Quincy Market (left and above)
than the "object in a parking lot" standard motel which might be proposed. The nature of the waterfront seems to require such a treatment. The inclusion of some sort of gallery or exhibition space in the lobby would help its function as a public gathering place. The greenhouse system also seemed a good way to enclose the swimming pool, to keep the sense of the outdoors in an enclosed space.

The Commercial Wharf building held some suggestions for elevation treatment, with its "variable inhabitation" of windows, panels, balconies, and dormers breaking up a powerfully repetitive facade with simple variations of two-dimensional elements. The breaking up of a long mass, already implied in my scheme, was suggested by the vertical stair tower elements in a mill building immediately adjacent to the site.

The turn in the building and its breaking down into smaller masses which can "slip" relative to each other is apparent in other buildings in Newburyport. The continuous brick buildings along State Street and Market Square turn quite gracefully with the curve of the street, almost flowing around the corner without a break. Some small wooden houses further down Water Street, although closely packed, shift alignment along the street to maintain the appearance of smaller chunks, related but discrete. And here again is the play of horizontal against vertical--houses against lighthouse.

The wharf is now being used in this scheme as a mooring for some sort of marina. The management and organizational
details I haven't dealt with—it is the form of the use that has concerned me—the idea that boats might dock there, either for short- or long-term periods, and how that would look and work.

The plaza and open space near and along the water edge could be broken down, as suggested, using terraces, walls, trees, and furniture, into smaller-scale spaces, where one might comfortably associate with a size between big open space and single bench.

The parking layout, which I took the liberty of adapting from Sasaki Associates' sketch, could be handled in a similar fashion with planting and walkways built across at several points. Of course, a parking lot is a parking lot, but if those walkways could be developed with sufficient planted and built definition (tree, walls, and benches) they might not be so bad as alternate ways through an otherwise undifferentiated sea of parked cars, from downtown to the water, should one choose not to move down the main pedestrian spine.
Waterfront and Downtown Area

Scale 1" = 100'
I closed in early on the Redevelopment Authority's architectural guidelines which recommended closing the buildings with brick, in keeping with the appearance of the historic downtown. My first explorations included a bearing wall structural system, like the old buildings, only on a 30-ft instead of a 20-ft bay, to accommodate motel room widths. The floor in this early pass was assumed to be precast concrete planks.

Subsequent conversations persuaded me that a frame system might be a better way to structure the building, given the potential cost of a bearing wall system. Also, the frame allows more flexibility for changing ground-floor uses (upstairs uses too, I suppose). Maintaining my assumption of a brick exterior, a light steel frame seemed the way to go, decked with either a wood joist system or lightweight concrete plank--lays are now assumed and drawn to be room width (15 ft), although they could be as easily 30-ft, assuming a precast panel deck.

Interestingly enough, the elevation bears some trace of the initial bearing wall structural thinking, in the alternating deployment of rooms and balconies in mirror-image fashion. Of course, this also falls out from the desire to put bathrooms back-to-back to save on plumbing stacks, and to pair room doorways to give them some shared territory off the corridor.

Closure would be made with brick, as noted above, with the greenhouse system as in the Quincy Market building, and with a standing seam metal roof.
The selection of a building system seemed fairly arbitrary in this case, but given the depth of the design exploration, and no real knowledge of the realities of the building market in that area, no deeper basis seemed to exist for making that decision. Perhaps a next phase of design would begin to explore more carefully (or more freely) the potentials of alternative building systems to give a little extra mileage to the concept that I reached in this exploration.
None. However, several observation were made...

"Giving up the ghost" has, once again, proven to be beyond my powers. I think I got a little closer this time, though, having had the opportunity to get right in there and really thrash around in a design problem. Playing a careful game will probably continue to be my style for some time to come, but having for once gone through the exercise of collecting all the artifacts of such a struggle, I might have a chance of sorting some of it out, and maybe letting go of some of the minor spooks on the next round. For me the project is really just begun.
APPENDIX:
EXCERPTS FROM

WATERFRONT REDEVELOPMENT PARCELS
CITY OF NEWBURYPORT, MASSACHUSETTS

DEVELOPMENT GUIDELINES AND
PROPOSAL SUBMISSION REQUIREMENTS
DEVELOPMENT GUIDELINES

BACKGROUND

Once a prosperous trading and shipbuilding center, Newburyport on the eve of the Revolutionary War ranked in size with Boston, New York, and Philadelphia. Its merchant families embellished the town with elegant mansions, handsome churches and fine public buildings. High Street, the major residential thoroughfare, is still lined with substantial clapboard houses framed by shade trees.

Until the War of 1812 broke Newburyport's grip on world trade, the clipper ships built here and dispatched to the Orient lined the docks off Market Square unloading silks, tea and china. Market Square has always been the historic hub of Newburyport. Completely rebuilt after a disastrous fire in 1811, its shops, warehouses and offices jostle for room on meandering streets and spill out in a graceful crescent onto an open square.

What sets Market Square apart from all other similar districts in the United States, however, is its Federal-style architecture. Simple, symmetrical, elegantly proportioned on a very human scale, Market Square is the last Federal-style commercial district left in the United States. Market Square remained intact and complete through 150 years of slow economic decline. This decline led to underutilization of buildings and physical deterioration.

The area's 19th century Federalist-style buildings were in need of repair and restoration. Telephone poles and overhead wires cluttered the streets. Asphalt roadways, small parking lots, and walkways dominated the entire area. Trees and shrubs were non-existent. The historic waterfront was in disrepair, accentuated by the crumbling seawall against the Merrimac River.
In 1971, a concept plan for the revitalization of Newburyport's central business district, including the waterfront parcels, was developed. The implementation of the initial portions of that plan (CBD Area) has resulted in a high utilization of the buildings with a new use mixture of commercial, office and residential space.

The plan allowed cars to move freely through the CBD area but also to reclaim at least 50% of the former vehicular area for pedestrians. Inn Street and Threadneedle Alley were closed to automobiles. Market Square, once a traffic turnaround, was made a pedestrian plaza. Sidewalks were widened at all major pedestrian intersections to decrease traffic speed and to improve pedestrian safety.

The overall design creates a feeling of history without ignoring 20th century technology. Cobblestones and bluestone emphasize special pedestrian areas. The fountain is composed of old granite bulkhead blocks from the waterfront. A tot lot was designed in keeping with the feeling of the waterfront character of the town, and a greenhouse sales pavilion is in the Inn Street Mall area.

The street lights, pedestrian lights and controlled graphics are important design elements. The street lights incorporate the pattern of the original Newburyport light. An incandescent bulb in the center gives warm and small city-scale illumination yet a mercury vapor bulb and ballast have been concealed to provide adequate illumination of the pedestrian and roadway surfaces.

A variety of trees and shrubs have been planted to soften and enrich the architectural elements. The parking lot is shaded with large deciduous trees which are protected by granite curbs.

Implementation of the second phase of the overall Concept Plan is now underway. A new bulkhead has been constructed along the Merrimac River and an embayment is provided. Floating boat docks will be installed in the spring of 1978.
The public Waterfront Park is currently under construction and Phase I will probably be completed in the fall of 1978. The Waterfront Park will provide a public-way, some 45 feet in depth, along the edge of the River and the embayment. Phase II of the Waterfront Park construction currently funded, but not bid, for construction will see the park extended towards Market Square on either side of the Fire Station. Public access will be provided further west from Merrimac and Green Streets to the Waterfront and further east from Water Street to the waterfront. A public parking area and additional access to the waterfront have been constructed to the north of the historic buildings along Water Street.

Private improvements along the waterfront include the rehabilitation of the buildings facing on Merrimac & Water Street to meet the standards set by the Redevelopment Authority and the historical societies.

The development parcels on the waterfront are the last remaining area for private developer designation. These parcels provide the opportunity to link, in an architectural manner, the activities in and around Market Square to the redeveloped waterfront. The design guidelines reflect both the nautical character to be established in the waterfront park, and the Federal-style architecture of the business district.
SITE LOCATION

The Waterfront redevelopment parcels are located on Newburyport's historic waterfront. This site is immediately adjacent to Newburyport's revitalized downtown shopping area. The downtown area is a complement of shops, restaurants and historic homes.

The 5 acre development parcels plus "air-rights" are surrounded by public improvements that are completed, under construction, or funded for work in the immediate future.

To the north at the Merrimac River edge, a $2.5 million waterfront bulkhead and park promenade is under construction. This work will be completed in the fall of 1978. The stabilization of the River edge with a new bulkhead is already complete.

To the south and east, the $100,000 waterfront park access road and public parking is complete. Directly behind the road, fronting on Market Square and Water Street, there is extensive redevelopment of historic buildings to include shops on the ground floor and office and residential space above.

The existing fire station on Merrimac Street is scheduled for restoration and redevelopment when the new fire station is complete. The public land adjacent to the fire station and between the waterfront park and the development parcels will be developed in a manner consistent with other public improvements in the area. This space will provide major pedestrian access to the waterfront park and the development parcels.

To the west, a walk to the waterfront and parking and access for existing business firms such as Davis Electric, Dugan Supply and Hudson's will be built.
Across Market Square, the Inn Street Mall with extensive renovation of the historic buildings is complete. In addition to the private renovation and rehabilitation, the public improvements in this area total $3.5 million.

Across Merrimac Street to the south is Parcel 8. This parcel is under the control of the Redevelopment Authority. The prospective developer of the waterfront parcel should contact the Authority to determine the current disposition status of Parcel 8.
ARCHITECTURAL GUIDELINES

The Final Environmental Impact Statement for the Newburyport Central Business District Urban Renewal Project (MA R-80), dated 2 June 1975, includes appropriate and useful guidelines for architectural treatment. The following material is based on that document as it is relevant to this project. The intent is to identify the elements which create the harmony and scale of the old Federalist-style Buildings and to propose methods consistent with contemporary techniques of reflecting and coordinating with these elements. These guidelines should be considered by potential developers. Subsequent architectural review will appraise compatibility.

1. Development Criteria for Architectural Treatment

   a) Proportions: "The most important element in identifying the 'harmony and scale' of a building design is identification of the building's proportions. How do the sizes of definable sections of the building relate to each other?

   Normally, one can perceive two basic sets of proportions in a building. The PRIMARY PROPORTIONS deal with the size relationship of the major parts of the building (i.e., bottom to top, side to side, section to section, bay to bay, etc.). The SECONDARY PROPORTIONS deal with the relationships of smaller architectural elements and how they break down within the major parts (i.e., windows, doors, shutters, cornices, etc.).

   Federalist-style architecture is pleasing and admired not for its imagination or extravagance, but because of its excellent understanding of proportions as related to the human scale. There were no hard and fast rules to these proportions - a certain rhythm would be set only to be changed for some reason of
functionality. The proportions of these buildings were a delicate balance controlled by the needs of flexibility and good taste."\(^1\)

2. **Architectural Elements**

a) **Building Width:** The EIS states that "All buildings of linear floor plan should be limited to 55'-0" in width. This is consistent with proportions of historic structures yet sufficiently wide to allow functional operation of stores."\(^2\) However, it is appropriate to allow for a building width of 65-70 feet for a double-loaded hotel corridor or other uses that might require additional widths. In this instance, a break in the end elevation perhaps with a stair, a corridor, or other architectural treatment must occur so that the visual appearance of the building shall be of a narrower silhouette.

In some instances, the program might dictate a wider use only on the first floor. This can be tied into the taller architectural mass above by the use of sloping roof planes or terraces.

b) **Building Height:** The EIS suggests that "No building should be more than 41'-42' in height measured from the mean of the grade along the frontage of the longest axis of the proposed structure."\(^3\) Current zoning limits height to 35'. In these parcels, a full 3-story limit of construction would seem appropriate. Fourth floor construction would be appropriate only with dormers in the sloping roof; however, a Zoning Variance will probably be required.

c) **Projections:** The EIS states "Fire walls are still recommended as fire stops between residential units and are appropriate roofscape scaling elements when allowed to project through rooms as on historic struc-
tures. Projection is typically 2'. Chimneys are allowed and encouraged, especially to conform to and express bay spacings and 3-bay sections."

d) Bay Spacings: The EIS suggests that "Structural bays should be between 18' to 20' and the typical 60' rhythm can be expressed in the form of a fire wall or chimney protruding above the roof. Chimneys, changes of level, etc., occur on the 3-bay lines, the proportions of the resulting 20' to 60' is related to the 1/3 to 2/3 of the 'Golden Section'." Hotel room bay spacing might imply a slightly smaller module; nevertheless, the 60' rhythm can be expressed perhaps with the intermediate rhythm less pronounced.

e) Dormers: The EIS states "Dormers can provide additional income-producing space, so some flexibility regarding their allowability is desirable." Design compatibility will be carefully reviewed.

f) Materials: The EIS suggests "Brick in common bond to match historic structures. Any expressed concrete frames must maintain depth scale of old granite lintels." Roof material must be dark shingles or standing metal seam on sloping areas.

g) Colors: The EIS states that "No artificially textured or yellow bricks to be allowed. Mouldings and wood trim to be consistent with traditional colors."

h) Glass: The EIS states that "Glass used in new construction must be thermopane or equivalent to preserve energy resources. Operating windows should be used on levels above grade to allow cooling by ventilation rather than air conditioning at times of energy shortages and to adjust to moderate temperatures."

i) Entrances, Terraces, Balconies: The EIS suggests that "Entrances to shops be recessed within the typical
20' bays on the ground level. Setbacks on roof or half-sloped roof schemes could be allowed for apartment terraces. Balconies on second and third levels must maintain consistent facade plane."10 Hotel terraces could also be allowed.

j) Windows and Doors: The EIS states that "Door and window openings should conform to window and door heights of historic structures; however, wider horizontal openings should be permitted to accommodate light and views, and thermopane of new glazing technology."11

k) Roof: The EIS states that "Major linear structures should be designed with sloped roof which may be split to allow skylighting or 1/2 sloped. Slope should conform to angles of roof of historic structures approximately 5:12 to 7:16."12

l) Wall, Facades: The EIS states that "Facades above the first level should be essentially a single flat plane to the roof cornice. Brick material and masonry treatments should be the scaling elements for walls (i.e., recessed bricks, etc.). The first level front facade may be recessed between bays to accent bay spacing and shelter entries."13

m) Signage: The existing sign controls developed for the NRA will be implemented and enforced.
HISTORICAL REVIEW

Because the waterfront parcels are adjacent to the Market Square Historic District which is listed on the National Register of Historic Places, the proposed development plans must be reviewed to ascertain that there is no adverse effect on the properties in that District.

Review will be conducted by the State Historic Preservation Officer (SHPO) at the Massachusetts Historical Commission in accordance with procedures outlined in 36CFR 800 to determine the effect of the plans. Documentation supporting the finding of effect must then be approved by the Advisory Council on Historic Preservation in Washington to ensure that the project's design is appropriate in the context of its historic setting.

Any preliminary approvals by the Newburyport Redevelopment Authority will be subject to final approvals by the SHPO and the Advisory Council before Developer Designation can be granted or land conveyed.

Document 36CFR 800 can be reviewed at the NRA office.
DEVELOPMENT FACTORS

1. Land Cost: The price for the development parcels has been established in accordance with regular procedures through independent appraisals. It should be noted that the parcels will not be sold on the basis of price competition, since in the NRA's judgment such a competition would serve to emphasize price at the expense of the quality of the development.

   The price for Parcel A will be $__________
   The price for Parcel B will be $__________
   The total for Parcels A and B will be $__________

2. Program Objectives: The potential uses are intended to have four principal characteristics:

   - Extend the Newburyport visitors' length of stay and generate repeat visits.
   - Attract area residents on a frequent basis.
   - Complement, not compete, with existing retail business.
   - Maximize the opportunity for contiguous floor space which new structures provide, while remaining in scale and harmony with existing Newburyport.

3. Market Findings: The Redevelopment Authority, through its Consultants, have undertaken a general market survey to identify the demand for principal uses that are appropriate for the waterfront. A report outlining the findings can be reviewed at the Newburyport Redevelopment Authority's office.

   It is expected that each developer will undertake his own assessment of the potential market. Insofar as this differs from the findings of the NRA's Consultants'
findings, market data supporting such conclusions are suggested as supplemental submissions.

4. **Suggested Uses:** Given the program objectives and the guidelines established by the market survey, the following uses are suggested. Other uses will be considered if it can be shown that the program objectives can be met.

a) **Principal Uses:**

- Waterfront inn with conference and function facilities.
- A major "theme-oriented" restaurant.
- Retail uses to complement existing retail such as convenience-oriented establishments, a modest-sized department store or regional/national merchandisers.
- Commercial/recreation activity such as a quality interpretation facility/museum featuring a comprehensive theme like "Yankee Heritage" and sub-theme like Clipper Ships, silver production, etc.

b) **Secondary Uses:**

- Professional and general offices on the upper levels, although some office uses could be considered on the ground floor.
- Residential uses, either rental apartments or condominium units.

5. **Building Envelopes:** Extensive consideration has been given to positioning the structures on the waterfront. The recommendations outlined below and illustrated by
Figure follow the criteria established by the EIS which have been reconfirmed by a series of design studies undertaken for the NRA.

The basic architectural massing shall be perpendicular to the river and adjacent and parallel to the public open space which extends from the Fire Station to the embayment.

In Parcel A, special care shall be taken so that the building massing and facade treatment is compatible in scale and fenestration to the Fire Station.

Furthermore, since this structure is adjacent to Market Square, consideration must be given to functional and visual relationships.

If a proposal has been accepted for Parcel 8 located south of Merrimac Street, the architectural massing must be compatible with such a structure.

In Parcel B, special care shall be taken so that the building massing and facade treatment is compatible in scale with the rehabilitated structures along Water Street especially the two structures adjacent to the Fire Station.

All service areas shall be screened in a positive manner by a combination of landscaping, walls and solid fencing.

In Parcel A, an easement will be granted to the City so that maintenance personnel have access to the Waterfront Park. Furthermore, an easement will be granted to the City so that vehicles can have access to the concrete slab located at the westerly position of the Waterfront Park.
In Parcel B, an easement will be granted to the City so that maintenance personnel have access to the Waterfront Park for maintenance. Furthermore, a pedestrian easement, not broader than ten (10) feet in width, will be granted in approximately the center of Parcel B running from the Waterfront Park to the City's access road behind the structures along Merrimac Street. Such easement will provide a convenient means of public pedestrian access to the Waterfront. A walkway shall be delineated, have a hard surface and be landscaped in a manner reflective of the Scheme.

Parcel C utilizes "air-rights" to provide the developer or developers the means to functionally link structures located on Parcels A and B. Such linkage can be as simple as an enclosed pedestrian passage or it can include active uses such as lounge, restaurant, offices, or hotel rooms. Residential use is not permitted.

6. Potential Program Accommodations: Based on the architectural guidelines and the building envelope, studies were prepared to test program accommodation. The limiting factor for development is the parking requirement, but some benefit can be achieved by the mixed-use approach.

The potential maximum program that can be accommodated on Parcels A, B and C is 150,000 to 160,000 gross square feet plus 290-315 parking spaces.

It is expected, however, that less than the maximum program will be proposed since market factors indicate that absorption would not be strong. A staged development proposal would be considered.

7. Illustrative Development Schemes: The following two drawings illustrate alternative development schemes which would be possible under the architectural guide-
lines and restrictions established. The principal difference in the development schemes involves alternative access from Merrimac Street for Parcel A, and the development of a principal entrance to the buildings in Parcel B.

The basic architectural massing for both schemes remains consistent. Structures shall be perpendicular to the River, paralleling the large central open space extending from the existing Fire Station to the recently constructed embayment. The northern and southern end elevations of such a structure shall be articulated in such a manner to visually scale down these end elevations so they are compatible with the historic structures found further south in the Inn Street area.

These structures can be three stories high (35 feet). If desired, it is the judgment of the NRA Consultants that a fourth level of occupied space could be developed within a roof dormer arrangement that could be visually compatible with the existing buildings further south. The specifics of such a proposal, however, are subject to the review and approval of the Newburyport Redevelopment Authority's Board and to the City of Newburyport's Zoning Commission.

It is recognized that the first level of the buildings may require more extensive coverage for the accommodation of conference rooms, functions rooms and restaurants, plus service.

Parcel C involves the use of "air-rights". This linking structure can be developed at the discretion of the developer or developers. It could be as simple as an enclosed walkway or as complex as a 2-story corridor housing active uses involving a small restaurant, a lounge, or hotel rooms.
The sweep of public space from the existing Fire Station to the head of the embayment must remain visually open. This, of course, does not preclude reasonable supporting piers and foundations below the linking structure, nor does it preclude public-oriented activities such as an outdoor cafe which might be developed in conjunction with the adjacent plaza area. The specifics of such a proposal must be included as part of the development proposal to be considered.


BIBLIOGRAPHY


ILLUSTRATION CREDITS

p. 14 Map from Faulkner, Port and Market.

p. 15 Photographs from Faulkner, Port and Market.

p. 17 Drawing from Newburyport Redevelopment Authority, "Development Guidelines".

p. 18 Map from Faulkner, Port and Market.


p. 26 Photographs from Faulkner, Port and Market.

pp. 34, 35 Drawings from Faulkner, Port and Market.

p. 37 Photograph from Funnell, By the Beautiful Sea.

p. 39 Photographs from Favole, Piaze d'Italia.

p. 44 Drawings from Jones, Hans Scharoun.

p. 57 Upper left photograph from Lindley, Seaside Architecture.
Lower right photograph from Architectural Record, Hotels, Motels, Restaurants, and Bars.

p. 58 Upper photograph from Interiors 2nd Book of Hotels.

pp. 95, 96 Drawings from Newburyport Redevelopment Authority, "Development Guidelines".

All other photographs and drawings are my own.