

SUMMER 1987

VOLUME 1, NUMBER 3

CENTRAL ARTERY/THIRD HARBOR TUNNEL NEWSLETTER



INSIDE

Site Seeing: The northbound segment of the new Central Artery will pass near Fort Point Channel, site of nationally known museums, historic bridges, and the famous Milk Bottle.

of the new Central Artery and Third

CJ

one of the largest and

Profile: Martha Bailey's job is to make sure engineers and planners working on the new Central Artery consider more than the technical side of an issue.

Technology: Boston Harbor's latest tun-nel will be built in a new-fashioned



"The City of Boston is committed to working closely with the state and the neighborhoods to ensure that impacts are kept to a minimum and that Boston's economic vitality and quality of life remain intact."

life remain intact." Richard Dimino, Transportation Department Commissioner, City of

contracts. But they (the project managers) have done a fine job of bringing the numbers down on individual contracts, and a lot more contractors can respond to these smaller jobs."

J. Philip Mitchell, President, Construction Industries of Massachusetts. "When people hear the \$3 billion figure, they think there will only be massive

"The project is absolutely necessary and critical for the long term. What is another ten years for a 360 year-old city? Traffic is ridiculous now — the rush hour starts at 6:30 a.m. and (again) at 3:00 p.m."

3:00 p.m." John B. Hynes III, Partner, Lincoln Property Company.

Artery engineering proceeds

"We're now in the preliminary engineering phase," says Mel Mirsky, project manager for Bechtel/Parsons Brinckerhoff (B/PB). "This is the period when we do our homework, producing the basic data that final designers ing the basic data that final designers and contractors will need to do their

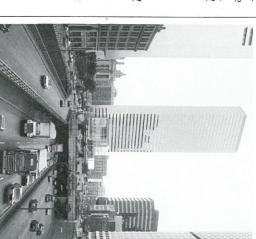
this summer Here are some examples of the pre-minary engineering that took place

Utility Relocation

Utility Kelocauou
In order to identify utilities which might have to be moved temporarily, B/PB engineers studied the records of more than 20 private companies and more companies operating utilities in public agencies operating utilities in the project area. Having this informa-tion in hand before construction starts not only is vital to the schedule, it also saves time and money, and helps avoid interruptions in utility service.

ers plan roads that function efficiently and safely. B/PB traffic planners regularly use computer models that show what traffic on Boston streets will be like in the future. This data will enable the selection of the proper design alternatives and construction mitiga-Traffic Planning
Traffic forecasts h help highway design-nat function efficiently

port about the project area prepared by Boston University's Office of Public Archaeology. The document examines patterns of historical development and identifies sections which may contain potentially significant sites. Selected areas will be tested and archaeological findings documented before construction begins. Archaeology
The new Central Artery and third harbor tunnel runs through one of the oldest cities in America. A B/PB archaeologist is now reviewing a draft i



The overburdened divides Boston in Central Artery

to address questions on Artery Regular meetings community



Gordon Brigham, who directs the presentation to the public. munity participation program, gives

five Boston neighborhoods, and to sponsor monthly public forums and create issue-oriented regional task bor tunnel is moving into high gear.
Officials have announced plans for a
first round of community meetings in Public involvement in the planning of the new Central Artery and third har-

forces.

"These are all good ways to expand the public dialogue we began in 1983 with the first review of the project's Environmental Impact Statement (EIS)," says Frederick P. Salvucci,

Massachusetts secretary of transportation and construction. "Our plan is to reintroduce ourselves to these communities, bring them up to date on the work we have done so far, and identify specific concerns which must be addressed in the future," says Salvucci. "The broad support the artery/tunnel project enjoys is a result of the diverse coalition which helped bring it about," says Salvucci. "We will continue to need the support of business people, neighborhood residents, union representatives, concerned citizens, and others. That is what will make this project successful, and what the public participation program is all about."

transportation and construction, who directs the artery/tunnel project. "Since preliminary planning and design began last year, we have talked to ticipation process," explains Matgan, the state undersecretary of the next natural step in the public participation process," explains Matt Coo-Neighborhood Meetings "Regular neighborhood me meetings are

dozens of community leaders and business people to keep them informed. Now it is time for a more formal program of public involvement," says Coogan.

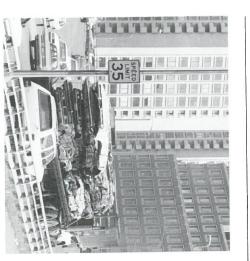
Meetings are scheduled to begin after Labor Day in the North End, East Boston, South Boston, South End and Chinatown, and the North Station

Outreach Programs

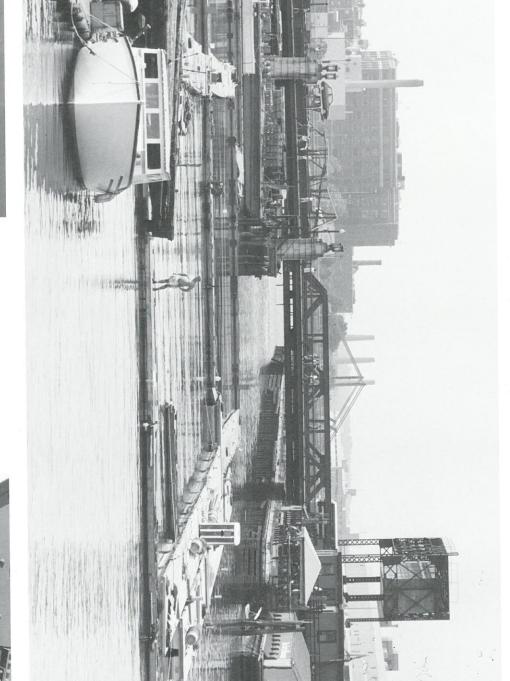
traffic planning, environmental concerns, and job training. We will be calling on experts from every part of New England for advice on these matters," says Brigham. program. "And early next year we expect to create task forces to address is the general public up to date on project-wide developments," says Gordon Brigham of Wallace, Floyd Associates who directs the community relations There will be other ways for the public to participate. "Beginning this fall, we will sponsor bi-monthly forums to keep such as construction mitigation,

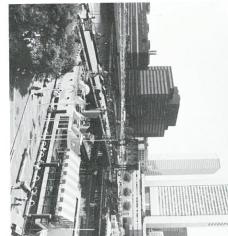
summer we spoke to hundreds of telephone callers with questions about the project, talked to some 50 groups or individuals who own property near the project area, and made more than 25 presentations to professional associations and community organizations," notes Brigham. "We want to hear from as many people as possible. This is a project that belongs to all of Boston." Other community participation activities are already under way. "This

Seeing



The Central Artery's daily traffic jams threaten the regional economy.





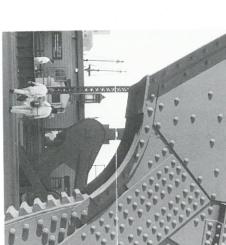
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Photos: Susan Lapides



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Profile

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Access is the community newsletter of the Central Artery/Third Harbor Tunnel project. It is produced for the Massachusetts Department of Public Works (MDPW) by Wallace, Floyd, Associates Inc., a Boston-based architectural and urban design firm. We invite your comments and suggestions. Please contact Access, Central Artery/Third Harbor Tunnel project, Suite 1400, 99 High Street, Boston, MA 02110 (617) 350-

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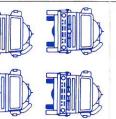
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New subscription

and generalist Analyst, catalyst planner's job:

"It doesn't make sense for us to waste time studying solutions that are unacceptable for environmental, economic or other reasons," says Martha Bailey, who manages planning and environmental design for the Massachusetts Department of Public Works (MDPW). "My job is to make sure we consider all sides of an issue," she says.

From Meeting to Meeting
Some days Bailey covers more ground than a long distance runner does in a week. On a typical day, she moves from meeting to meeting, talking to most of the engineers, architects and planners now at work on the new Central Artery and third harbor tunnel.

a diverse coalition of residents and developers. Her experience in organizing housing groups in Providence, Rhode Island gave her a unique perspective — and a special relationship with the community — when she was later named chief planner of that city. Bringing together people to exchange information and ideas is one of the things Bailey has done best in her career. While working at the Boston Redevelopment Authority (BRA), she helped design a program for the revitalization of the Columbia Point housing project which won the support of

Examining Other Issues

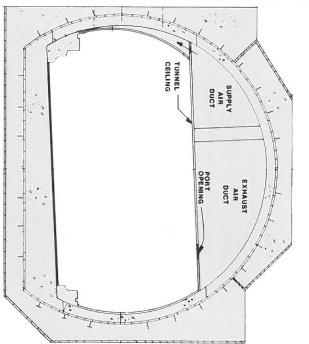
One of Bailey's principal responsibilities at the MDPW is managing the preparation of supplemental documentation to examine outstanding issues not fully addressed in the 1985 Final Environmental Impact Statement (FEIS). To make sure this information is complete, she helps organize a bimonthly presentation for federal, state and city officials. More than 40 public agencies are invited to these meetings, at which participants discuss recent project activities. "Establishing relationships with these agencies now is very important," says Bailey. "By keeping them informed on a regular basis, the necessary steps in the regulatory process can be completed expeditiously. This communication and cooperation will be critical in meeting the ambitious schedule we have set for the project." Bailey has established similar ties with private developers as well. "We are trying to understand their needs, and to keep them informed of our activities and schedule," she says.

Bailey also plays an important role in the public participation program. This summer she chaired more than 50 meetings with people who own property near the project. More than 500 people took part in the meetings, which offered an introduction to the project and addressed concerns about construction. "We discovered there are a lot of basic misconceptions still out there," she says. "For example, many people don't know that all lanes of the elevated Central Artery will remain open until the underground replacements are ready." Bailey anticipates a heavy schedule in the weeks ahead. Besides her work in planning and community relations, this winter she will continue to be involved in other project programs, including archaeology, affirmative action, and job training. Whatever the assignment, Bailey says her strategy is the same: "to make sure engineers, architects and planners are sensitive to public concerns."



Martha Bailey, MDPW manager for planning and environmental design

tunnel design and construction **Immersed** tube



Immersed tube tunnels such as the one shown in this drawing are built in sections, towed to the site, lowered into place from a catamaran-like barge, and joined together by mechanical

Five tunnels now crisscross Boston Harbor. All but one were dug by workers known as sandhogs who labored in pressurized chambers far below the harbor floor. Boring a tunnel this way is hard work, sometimes dangerous, and often

painstakingly slow.

Based on their preliminary studies, Bechtel/Parsons
Brinckerhoff (B/PB), the project's management consultant
team, has recommended the further study and potential use
of the immersed tube method for Boston Harbor's newest
highway tunnel. Linked to the Southeast Expressway and
the present terminus of Massachusetts Turnpike by a new
Seaport Access Road and ending at Logan Airport, the third
harbor tunnel will be four lanes wide and 4,200 feet long.

"The immersed tube tunnel construction method would offer a major benefit to motorists because it can be placed closer to the harbor bottom than one built using the bore method," explains Lou Silano, B/PB engineering manager. "In this case, the result is a much safer highway because the grade is less steen." Immersed Tube Construction "The immersed tube tunnel cons

Here is how an immersed tube tunnel is built: A trench is excavated by dredging or with a clam shell bucket. Where rock is encountered, it is split up by carefully controlled small explosive charges, and a clam shell bucket excavates the remaining material. The tunnel is fabricated in sections (the third harbor tunnel would be made up of 13 tubes, each approximately 320 feet long, 80 feet wide and 30 feet high), and individually towed to the site. Each tube section is positioned above the trench and lowered into place from a large catamaran-like barge; the sections are joined together by mechanical couplers. When all sections are in place, final connections and finishes are completed and the tunnel opens to traffic

Careful Design Required

Immersed tube construction requires careful preparation, patience and precision. B/PB has designed more than 20 miles of tunnel using the technique — more than all other U.S. engineering firms combined. "In Boston Harbor, each tube would be lowered to a depth of up to 100 feet, to within one inch of its theoretical resting place," says Silano. "And many of the tubes would be individually designed with slight bends called miters in order to accommodate the curved path of the alignment. In fact, this would be only the second immersed tube tunnel in the world to be designed with simultaneous vertical and horizontal miters."

Preliminary engineering and other planning for the third harbor tunnel has been underway since January 1986. The schedule calls for construction to begin in 1990, and the tunnel to open to traffic in 1994.

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Hotline

- A
- help our transportation system?

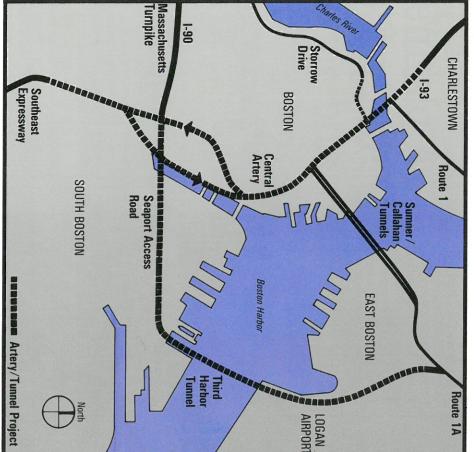
 With eight to ten lanes, the new Central Artery will double throughput capacity at what is today considered New England's worst chokepoint. The four lanes of the new harbor tunnel will double cross-harbor capacity and siphon off 40,000 cars from the Sumner and Callahan tunnels. These improved capacities will reduce, and in some cases eliminate, congestion on area highways.
- D C What are the economic benefits?
 This project will ease the traffic congestion which threatens regional economic growth, and is expected to create an estimated 7,700 construction and related jobs each year over a 10-year period and generate more than \$4 billion in regional economic opportunities.
- 0
- A ect attract more cars to already overcrowded Boston streets?

 The new Central Artery and the third harbor tunnel are expected to remove as many as 40,000 vehicles from local streets and put them back on the interstate highways where they belong. These improvements, along with \$2 billion in recent investments in the MBTA and a continued commitment to a parking freeze in downtown Boston, will result in a more balanced transportation system.

- 0
- A derground Central Artery leave a large open pit in the city center for years to come?

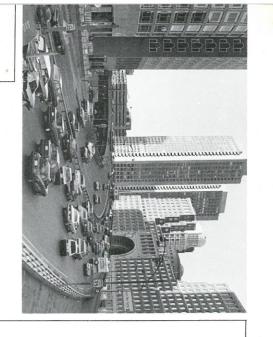
 I. No, because plans call for decking to be placed on top of these work sites after the initial excavation. Most work will then take place underground. This will allow traffic and pedestrians to use surface roads beneath the elevated structure and help minimize noise and
- 9 Will pedestrians and motorists be able to cross under the elevated Central Artery during
- Ā construction?
 Pedestrian and motorist access to major cross streets under the elevated Central Artery will be maintained at all times.
- 0 What will be done to replace parking removed by project construction?
- A . Because many North End merchants depend on local parking, new spaces will be provided before existing spaces are removed. Other spaces will be replaced by lots built by the private sector and the

Readers are invited to submit their own questions to HOTLINE. Letters must be signed and include the author's address and telephone number. We regret that space limitations do not allow us to respond to all correspondence.



The Central Artery/Third Harbor Tunnel project will complete the interstate in the interstate of the highway system in Boston. It will replace the six-lane elevated section of the I-93 Central Artery with a new eight-to ten-lane road, mostly underground, between the Southeast Expressway and Charlestown. It will also extend the I-90 Massachusetts Turnpike to Logan Air-

port via a Seaport Access Road passing through commercial land in South Boston and a four-lane tunnel under Boston Harbor. The schedule calls for the following milestones: 1994, third harbor tunnel opens; 1995, southbound Central Artery opens; 1996, northbound Central Artery opens; 1998, removal of elevated Central Artery.



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