CASE STUDY: BALTIMORE MARITIME INDUSTRIAL ZONING OVERLAY DISTRICT

Introduction

This case study documents the history and relevance of a unique planning tool called the Maritime Industrial Zoning Overlay District (MIZOD) that has been employed at the Port of Baltimore to balance industrial and non-industrial development. The creation of the Maritime Industrial Zoning Overlay District was, above all else, an attempt to slow down the redevelopment of certain Port facilities from industrial to non-industrial use in order to see more clearly whether the economic trends that were driving this redevelopment were, in fact, permanent. If the industrial functions of the Port of Baltimore were truly of the past, then no zoning policy would be capable of saving them. When the MIZOD was passed in 2004, the Port and City government argued that such conclusions could more confidently be drawn when the MIZOD was originally set to expire in 2014.

The MIZOD was created by the City of Baltimore to protect frontage land along the harbor that had harbor access of at least 18 feet of draft. The overlay was carefully crafted to preserve the most vulnerable and critical areas of deep water frontage for current and future freight use. While controversial at the time of passage, the MIZOD has emerged as an effective planning tool, and was most prominently endorsed when a 10-year extension of the original authorization was approved in 2009 that solidified the status of the MIZOD through 2024.[1] Furthermore, the MIZOD is being considered as a potential planning tool by other ports seeking to prevent encroachment of their industrial lands. The Port of Providence is given as an example of a port that may develop an overlay zone as a direct outgrowth of the Baltimore MIZOD.

In order to learn more about how the MIZOD evolved and the role it plays in both the City and Port's planning efforts, the researchers reviewed previous analyses, conducted several phone interviews with Port and private sector representatives, and held meetings in Baltimore with the Port and the City Planning Office.

Context

Perhaps nowhere else in the United States is the history of a city more intertwined with the history of a port than in Baltimore. The evolution of the Port of Baltimore along with the City of Baltimore has seen the orientation of the Port frequently change to serve the evolving needs of the City and the larger community. The Port was created in 1706, prior to the establishment of the City of Baltimore, and in the course of their mutual history, the Port has seen its layout altered many times in service of the City, major shippers, and the U.S. military.

The Port of Baltimore is run directly by the Maryland DOT and the State of Maryland. As a result, the State has a more direct role in port planning than is the case for ports in other states, the vast majority of which are governed by port authorities. In total, the Maryland Port Administration controls seven terminals, which handle the majority of the tonnage at the Port

[1] Anirban Basu, "An Economic Impact Assessment of the MIZOD in Baltimore," Sage Policy Group, 2009.

(mostly containers), although there are several private terminals that specialize in different cargo types. The State of Maryland has invested more than $700 million in the Port of Baltimore over the last decade and, therefore, has a strong vested interest in seeing the Port remain viable well into the future.[2] Furthermore, the Port of Baltimore is the only large port within the State of Maryland, and is of critical importance for supplying consumer goods to Maryland and the greater Washington, DC area.

Until recently, the Port's historical function involved primarily the shipment of domestic cargoes. The geography of Chesapeake Bay, in particular the Patapsco River, limited the ability of shippers in the first half of the twentieth century to ship overland. For this reason, domestic shipments of all types of goods by water from the Port of Baltimore remained an important business even after other areas of the country had switched to rail or truck deliveries.

The completion of the Harbor tunnel and related improvements in the late 1950s and early 1960s meant that most of the domestic shipping operations by water were no longer necessary. For this reason, the Port of Baltimore no longer had a significant need for the shallow water inner harbor docks and they consequently fell into disuse. There was widespread support among almost all parties within the Baltimore area that some redevelopment and conversion to alternative uses was necessary. The establishment of the Baltimore Convention Center, which opened in 1979, was seen as the first serious attempt to redirect the abandoned warehouse areas of the inner harbor to a tourist destination. Given the unsustainably low tax base and general underutilization of the inner harbor area, the efforts to create a functional tourist and commercial center were broadly supported by multiple parties, including Port officials.

For many years, the redevelopment of the inner docks and some defunct facilities in proximity to the deepwater access channels was supported, or at least not actively opposed, by the Port. For example, the Port of Baltimore administration, was involved in one of the early efforts to revitalize the inner harbor area—the Baltimore World Trade Center. Some Port tenants point out that the amenities offered by the City in the redeveloped areas, many of which are in the inner harbor area, are a key factor that has allowed them to hire and retain talented employees.[3] Therefore, Port tenants benefit indirectly from the redevelopment of the inner harbor.

Recent History

With the rapid growth of international trade in the mid-1990s, it was unclear what role the Port of Baltimore would be able to play in the new economy. However, it was becoming clear that the Port had limited ability to grow and, therefore, limited ability to respond to new economic conditions. Existing facilities were feeling the strain from additional land redevelopment that was now beyond the historical inner harbor area and encroaching on land that, while not actively being used for freight activity, still had the potential for serving a freight role in the future. Furthermore, existing freight operators noted the importance of having a buffer zone between freight and non-freight uses, particularly for operations such as the Rukert dry bulk terminals,

[2] Interview with James Dwyer, Maryland Port Administration, July 26, 2010.
[3] Andrew Michael, "MIZOD Case Study Report," M&T Bank, August 11, 2006.

which produce dust within a small radius. One terminal tenant, MAPC, moved to Baltimore, in part, to avoid waterfront conflicts at their former location at Annapolis.[4]

What is different about the Port's shifting land use in the last three decades is not the fact that the balance of industrial and non-industrial land is changing, but rather that the pace at which it is changing was viewed as unsustainable. The decline of certain industries that had historically occupied Baltimore terminals, combined with a boom in residential and commercial real estate, threatened to swallow so much land that it appeared the Port would be driven toward a few specialized activities, such as container handling and roll on/roll off cargoes, and away from its traditional bulk cargo and manufacturing base. While intermodal terminals are very efficient, this efficiency means they do not directly create as many blue collar jobs when compared with manufacturing plants.

As a general rule, the private marine terminals at the Port of Baltimore are more directly affected by encroachment of non-freight development than the public terminals. This is due to their location in proximity to residential and commercial areas, and the fact that the use of the state-controlled terminals cannot be converted without legislation. Each terminal operator, however, recognizes that a critical mass of industrial facilities is necessary for all terminals to thrive. The private terminals, several of which border the (generally larger) public terminals, provide an important buffer for the public terminals' operations. In addition, the combined tonnage produced by all terminals is considered by the Army Corps of Engineers in making determinations on channel maintenance prioritization, and losing terminals to redevelopment can have a negative effect on that prioritization process.

The Creation of the MIZOD

The Governor of Maryland created a task force to examine strategies for making better use of the Port-controlled lands. The results of this examination documented the fact that the Port did not have much room to grow and, given the rate at which former industrial lands were redeveloping, had a significant challenge in remaining viable into the future. Unlike some other deepwater ports along the East coast, the Port of Baltimore did not have any nearby military facilities scheduled for closure or any other logical areas that could be converted to future industrial use. Therefore, City and State planners knew that if the existing assets at the Port were not preserved, the Port had no other alternatives but to shrink in size and in scope.

Regulations on dredge disposal create another factor that complicates the Port of Baltimore's ability to expand. While the Port has some areas that could serve as new industrial sites, providing deep water access to these facilities would require massive new capital dredging projects that would produce far more dredge material than the Port could economically dispose of. Dredge material from the Baltimore harbor is generally deemed hazardous material, and as such, the Port is barred from disposing of the material out of state. The Port estimates that it has ten years of capacity to dispose of dredge material from its current channel maintenance operations, and a new capital dredging project would overwhelm the Port's existing dredge

[4] Andrew Michael, "MIZOD Case Study Report," M&T Bank, August 11, 2006.

disposal areas. Constraints on future dredging present another compelling reason to ensure that tenants with deep water access actually utilize the water for freight purposes.

While the State of Maryland controls the finance questions, it is up to the City to set zoning policy and regulate land uses in the Port area. Although the Port was consulted in the development of the overlay, it was designed primarily by the City of Baltimore in conjunction with third parties, such as the Baltimore Development Corporation. The majority of pushback that occurred when the ordinance was passed came from landowners who had recently acquired land near the Port in the hopes of constructing non-industrial uses such as restaurants.

How the MIZOD Functions

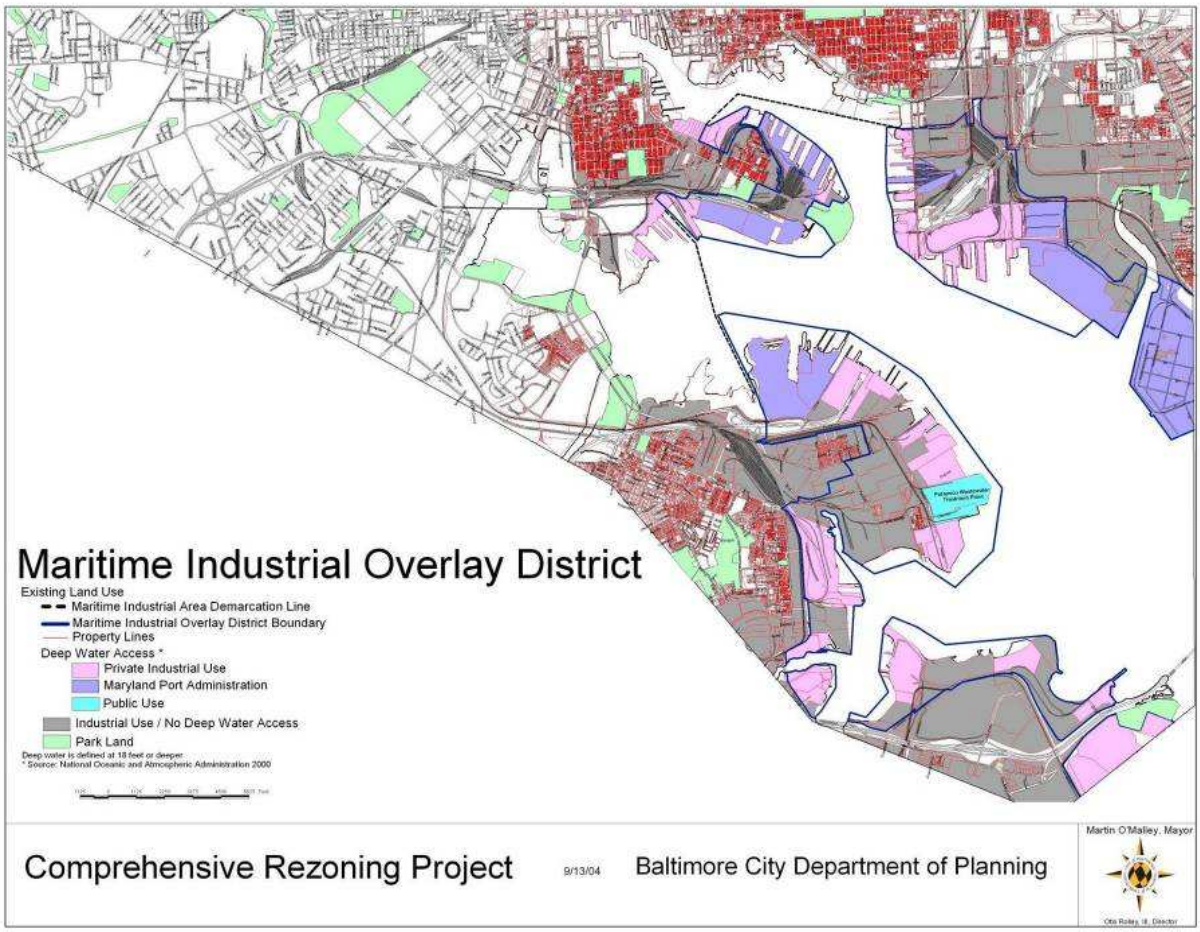
The MIZOD is an overlay zone that is meant to protect deep water access, and industrial operations serving and depending on that access. It prohibits non-industrial uses from developing within the overlay zone. The primary zoning for the area is designated as heavy industrial, with the overlay preventing PUDs, entertainment venues and taverns, and non-accessory-use commercial development (hotel, restaurant, office, etc.) from developing.[5]

The boundaries of the MIZOD were established to encompass those areas where there is access to at least 18 feet of draft. Because the draft becomes shallower closer to the downtown, those properties that had the most attractive profile for urban redevelopment were least attractive for industry. The MIZOD was designed to protect those facilities that are still viable for industry. The boundaries of the MIZOD are shown on Figure 1.

The MIZOD was set to expire in 2014, but businesses within the MIZOD were having difficulty securing financing for projects that would bump up against or go beyond that sunset date. In March 2009, the City Council's Land Use and Transportation Committee passed an amendment that extended MIZOD for another 10 years to 2024. Landowners who wish to opt out of the MIZOD may leave during the renewal period in 2014. Given the fact that most of the landowners within the overlay zone currently use the land for freight purposes, the Port does not expect significant attrition in 2014. In addition to extending the authority for the MIZOD, the City Council also took steps to expand its scope to other areas of the City. The Baltimore Industrial Group, whose members include businesses that lobbied for passage, supported this extension and expanded scope.

[5] Broadwater, K., "The Importance of MIZOD in a Competitive and Growing Port of Baltimore," PowerPoint presentation at the Maryland Freight Summit, September 14, 2009. Accessed at http://www.marylandtransportation.com/OFL/2009FreighSummitpresentations/MIZODandImpactonthePort.pdf.

FIGURE 1
MAP OF MIZOD AREA[6]



Impacts of the MIZOD on Industry and the Economy

Domino Sugar is often cited as a major tenant that might have abandoned the Port had the MIZOD not been created. Given that the Domino Sugar sign is an iconic image clearly visible from the inner harbor, MIZOD advocates have used this image to represent the ability of industrial and non-industrial uses to thrive within a confined area if proper policies are set. Prior to the establishment of the MIZOD, the encroachment of non-industrial uses was making it more difficult for Domino Sugar to continue its operations. The plant engaged in several mitigation activities aimed at lowering the impact of operations on surrounding neighborhoods, such as noise reduction. While Domino agreed to finance some of these efforts, it could not do it repeatedly if no action was taken to officially designate the area as an industrial zone. The

[6] Presentation by James Dwyer of the Maryland Port Administration to the Federal Highway Administration, November 19, 2008.

establishment of the MIZOD and the greater certainty it created not only allowed Domino Sugar to stay in Baltimore, but the Port received a substantial infusion of new business following Hurricane Katrina as much of the sugar industry that had been based in the New Orleans area migrated to Baltimore.

Figure 2 shows the Domino Sugar sign as seen from the inner harbor.

FIGURE 2

DOMINO SUGAR SIGN AS SEEN FROM THE INNER HARBOR IN CLOSE PROXIMITY TO A RECREATIONAL MARINA[7]

While there is a consensus that the MIZOD has been good for the Port and Port users, in order to remain, it must also be shown to benefit the City as a whole. Significant efforts have been undertaken to document the effects of the MIZOD since its initial passage. As a baseline, the Port hired Martin and Associates in 2006 to perform a study of the Port's economic impact. The study estimated that 50,200 jobs in Maryland were directly or indirectly sustained by Port activity. Of these, 16,500 were direct jobs. Another key finding of this 2006 study was that, of the direct jobs, the majority were generated by the private terminals, which are seen to be the biggest beneficiaries of the MIZOD. The private terminals accounted for 9,718 direct jobs in 2006.[8]

[7] Nathan Hutson photo, July 26, 2010.
[8] Martin and Associates, "The Economic Impacts of the Port of Baltimore" Prepared for the Maryland Port Administration, Revised February, 2008.

The number of jobs is important, but what is equally important is the type of jobs that are sustained.[9] It is important for the City to provide opportunities for individuals who want to work, but have neither the specialized skills offered through a college education nor the years of training required to enter the pool of skilled unionized port workers. Manufacturing at the various industrial plants supported by the MIZOD provides this opportunity. For the first half of 2010, Baltimore has managed to keep its unemployment rate below 8 percent at a time when the nationwide average was almost 2 points higher.[10]

In early 2009, a report that looked specifically at employment and revenue impacts of the MIZOD was published. The report, entitled "An Economic Impact Assessment of the MIZOD in Baltimore" was released in February 2009.[11] The principal goal of the analysis was to test the theory that redeveloping certain portions of the City from industrial to mixed use would be beneficial, from a tax base perspective, for the City. The analysis determined that the continued use of industrial land for Port-based activities was more likely to be in the long-term interest of the City. While there was a tax base benefit due to the waterfront premium that could be offered by redeveloping industrial land as mixed use, this was not substantial enough to make up for the lost economic benefits from losing industrial land. The analysis found that there were many suitable substitute locations for attractive mixed use development within the urban area. However, there were essentially no substitutes for the deep water frontage preserved by the MIZOD:

> In other words, the public policy choice is not between choosing mixed use development over industrial operations or vice versa. Rather, the public policy decision revolved around whether to not development that need not be on the water be permitted to displace economic activity that must be on the water.[12]

The report noted that benefits did accrue from the placement of mixed use developments on the water. However, these benefits were not sufficient to make up for the displacement of industrial uses. While high-intensity mixed use was found to support more total economic activity, port-related activities created more jobs and the jobs created are more likely to be full time and pay higher hourly rates. Finally, the report commented on some of the strategic reasons for retaining Port and industrial facilities. These include the number of businesses and industries that rely on Port activity, and the uncertain (and likely declining) value of premium housing, such as waterfront condos, to drive the local tax base.

Ordinance Structure

Communicating the importance of deep water access has been one of the most challenging aspects of the public outreach effort. The City of Baltimore has many areas where defunct former industrial space is being redeveloped into higher-value use, with the City's full support.

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[9] Interview with James Dwyer, Maryland Port Administration, July 26, 2010.
[10] Metropolitan Area Employment and Unemployment (Monthly) News Release http://www.bls.gov/news.release/archives/metro_07282010.htm.
[11] Anirban Basu, "An Economic Impact Assessment of the MIZOD in Baltimore," Sage Policy Group, 2009.
[12] Anirban Basu, "An Economic Impact Assessment of the MIZOD in Baltimore," Sage Policy Group, 2009.

City residents are often confused as to why some industrial facilities that look very similar to MIZOD properties are eligible for redevelopment while facilities within the MIZOD are not. Thus, planners have to clearly differentiate between deepwater access facilities that are in short supply, and general industrial lands that have fallen into disuse and will likely not be rehabilitated because they do not meet the space criteria for modern distribution centers.

Although the overlay protects against non-industrial uses intruding upon valuable and limited deep water accessible land, the overlay does not prevent non-maritime industrial uses from locating within the MIZOD. This is one of the core criticisms of an analysis done by the Regional Economic Studies Institute (RESI) of Towson University.[13] Other criticisms from the report include:

- The lack of protection for transportation networks that provide access to Port operations
- The absence of buffer development and conflict resolution measures between the MIZOD area and incompatible land uses that border the overlay zone
- The future land speculation that could arise due to the sunset nature of the MIZOD

The last concern has been alleviated somewhat by the extension of the MIZOD to 2024, and could be further mitigated if a permanent maritime industrial zone district is developed.

Future Plans

The City of Baltimore is currently creating a new comprehensive plan called Transform Baltimore. Although the comprehensive plan is currently in the development stages, some preliminary content is up for public review. Specifically of interest is a new zoning district designation, which would likely replace the MIZOD in favor of an actual zoning district for maritime industrial use rather than using an overlay on top of heavy industrial zoning. This would eliminate the issues surrounding the sunset nature of MIZOD and provide better focus for preserving land for only port and maritime industrial use. The preliminary code outline also states that buffering will somehow be incorporated into the zoning structure in order to address conflicting land uses bordering the industrial maritime zone.[14]

Additionally, a press release from the President of the Baltimore City Council appears to support the recommendations of the report, including better management of buffer zones, requiring inclusion of language into real estate contracts for properties near the MIZOD (or the new zoning district mentioned above), the creation of a regional entity that includes the many stakeholders of the Port of Baltimore, and the development of a master plan for the Port area.[15]

Transferability

Beyond the economics of the Baltimore area, another question that has emerged regarding the potential benefits of the MIZOD is the extent to which the efforts taken in Baltimore can be transferred to other locations. If the MIZOD proves to be a unique feature of one port, then its

[13] Hentschel, J. J., and Irani, D., *Charting the Future of Baltimore's Industrial Waterfront*, January, 2009. Retrieved from The Abell Foundation website: http://www.abell.org/pubsitems/CD_BaltWaterfront_0109.pdf.
[14] http://www.transformbaltimore.net/portal/annotatedoutline?pointId=1244230470860#section-1244230470860.
[15] www.baltimorecitycouncil.com/031809MaritimeZoningBillApproved.pdf.

future research value is limited. In fact, the planners who helped design the MIZOD indicated that not every port would be able to duplicate the arrangement that was established in Baltimore due to the historical and economic factors that drove its adoption within the Baltimore area.

However, the researchers also found that the MIZOD is already being used a model for some other ports that are dealing with encroachment issues. The Port of Providence in Rhode Island is the most recent example. In the industrial Port of Providence, there has been a recent attempt to build a hospital and hotel complex that would require rezoning a 346-acre area in South Providence.[16] The construction of the hospital complex would require substantial environmental remediation. The project is supported by Providence's mayor, but opposed by the privately-run port. The mayor's plan would retain some land for continued port use but would allow "non-water dependent and non-industrial uses in a 62-acre section of the waterfront nearest the downtown, opening the door for restaurants, bars, hotels, marinas and more."[17] The Port of Providence has requested that the Maryland Port Authority advise them on strategies for preserving the waterfront and has requested that Maryland Port Authority officials testify at a zoning hearing about the potential hazards of incompatible waterfront development. The Maryland Port Authority has also been asked to help the City of Providence develop a zoning policy that would provide opportunities for development without compromising the port's core function or setting up a situation that would lead to inevitable conflict.

Figure 3 provides a timeline of events for MIZOD.

[16] Philip Marcelo, "Developer's Criminal Past Clouds Proposal for Providence Waterfront," June 28, 2010. Accessed at http://www.projo.com/news/content/STANTON_SHIFMAN_06-28-10_1TITJ9C_v51.15a566a.html.
[17] Philip Marcelo, "Providence Waterfront Rezoning Idea Garners Mixed Reaction," June 2, 2010. Accessed at http://www.projo.com/news/content/PROVIDENCE_WATERFRONT_HEARING_06-02-10_CVIND3_v19.183b6e6.html.

FIGURE 3

MIZOD TIMELINE