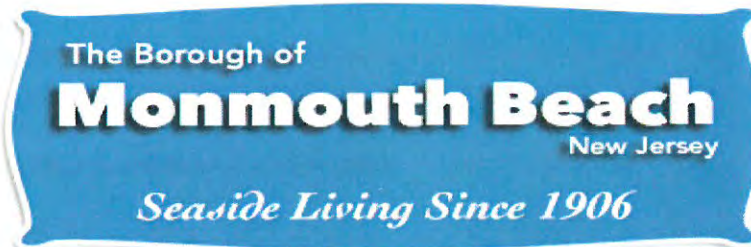


Lot and Impervious Coverage Study



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1. STUDY AND BOROUGH OVERVIEW

1.1 INTRODUCTION

On April 25, 2017, the Borough of Monmouth Beach Board of Commissioners adopted Resolution #R-46-17, which authorized the preparation of a lot coverage study and impervious coverage analysis for the Borough of Monmouth Beach, hereinafter referred to as the “Study”. This resolution is included herein within **Appendix A**. The Study provides the necessary data and background information for the Commissioners to make recommendations for ordinance revisions relating to impacts of increased coverage, both building and impervious, throughout the Borough.

Monmouth Beach, located in the northeastern portion of Monmouth County as shown on **Figure 1, Project Location**, has a land area of approximately 1.069 square miles, or 684 acres. The waterbodies that surround the Borough are the Shrewsbury River, Manahassett Creek, and the Atlantic Ocean. Monmouth Beach is linked to the surrounding areas by way of New Jersey State Highway Route 36, which runs north-south connecting to Sea Bright to the north and Long Branch to the south. Route 36 connects to the Garden State Parkway and New Jersey State Highway Route 35, providing access to major regional transportation corridors within the State of New Jersey.

The Borough is nearly fully developed with limited available developable land not impacted by environmental constraints. Single family residential is the predominant land use and residential building type in Monmouth Beach. There are three high-rise multi-family developments in the Borough. According to a Monmouth County Division of Planning publication titled “Monmouth County At-A-Glance”, dated March 2016, approximately 13.4 percent of the land in Monmouth Beach is vacant, consisting of private land and the sedge islands in the Shrewsbury River. Remaining land uses in the Borough include commercial, office, marina, public facilities, and utility facilities. Monmouth Beach is in the Coastal Area Facility Review Act (CAFRA) zone, which applies to most development projects near coastal waters.

On October 29, 2012, Superstorm Sandy struck the New Jersey coast, leaving extensive damage to the Borough from both storm surge and wind damage, forcing the evacuation of hundreds of Borough residents. Monmouth Beach sustained winds exceeding 80 miles per hour and a tidal surge of approximately nine feet above high tide level. In addition to the damage and impacts noted above, there were several longer-term impacts on development and infrastructure throughout the Borough.

As indicated in the Borough’s Floodplain Management Plan, the Flood Advisory Committee made a recommendation to conduct a lot coverage study and impervious coverage analysis. This analysis is to determine if the current impervious coverage conditions and regulations are negatively impacting drainage throughout the Borough. Based on the findings of the study, ordinances should be updated as indicated in this report and as determined to be necessary.

1.2 STUDY PURPOSE

This Study is designed to examine pre- and post-Sandy development and the resulting impervious and building coverage totals for lots throughout the Borough. During the preparation of the Borough’s Floodplain Management Plan, residents cited potential impact of further development in the Borough.

There are several steps comprising the Study, as follows:

1. Review existing documentation of pre-Sandy building coverage and lot coverage/impervious coverage.
2. Review existing documentation of post-Sandy building coverage and lot coverage/impervious coverage.
3. Analysis of building coverage and lot coverage/impervious coverage.
4. Propose findings and recommendations relevant to the determination of lot coverage.
5. Ordinance amendments, as deemed appropriate.

There are four sections that comprise this Study, described as follows:

1. Section 1 gives an overview of the Study and the Borough.
2. Section 2 describes pre- and post-Sandy coverage mapping and post-Sandy coverage actions.
3. Section 3 provides findings for pre- and post-Sandy coverage.
4. Section 4 provides ordinance revision recommendations to the Borough Commissioners based on the pre- and post-Sandy coverage analysis.

1.3 BOROUGH POPULATION AND GROWTH

The following tables provide an overview of the Borough's population and growth, including population size, age, and income characteristics. This information provides an overview of the demographic conditions of the Borough that contribute to the land use and development policies of Monmouth Beach over the years.

1. Population Size. As noted on Table 1, the Borough experienced a substantial decline in population between 2000 and 2010, falling by almost 10 percent from 3,595 in 2000 to 3,279 in 2010. The 2000 Census population figure represented a historical high for the Borough, while 2010 population was more in line with population data from 1980 (3,318) and 1990 (3,303).

According to Census estimate data, the Monmouth Beach population grew slightly between 2010 and 2011, but has slowly been declining since 2012, which could be the result of the effects Superstorm Sandy had on the Borough. Surrounding towns of similar size such as the Boroughs of Highlands and Rumson also experienced Sandy impacts leading to declining population size.

Table 1: Population Growth (2000 to 2010) - Borough of Monmouth Beach, New Jersey

| Year | Population | Population Change | Percent Change |
|-------------|------------|-------------------|----------------|
| 1970 | 2,042 | -- | -- |
| 1980 | 3,318 | +1,276 | 62.5 |
| 1990 | 3,303 | -15 | -0.5 |
| 2000 | 3,595 | +292 | 8.8 |
| 2010 | 3,279 | -316 | -8.8 |
| 2011 (est.) | 3,315 | 36 | 1.1 |
| 2012 (est.) | 3,298 | -17 | -0.5 |
| 2013 (est.) | 3,280 | -18 | -0.5 |
| 2014 (est.) | 3,278 | -2 | -0.1 |
| 2015 (est.) | 3,258 | -20 | -0.6 |

Source: U.S. Census – 2000, 2010, American Community Survey 5-Year Estimates.

2. Age Characteristics. The Borough's age characteristics are outlined in the following table. Although the Monmouth Beach population declined between 2000 and 2010, the Borough's population is growing in the five to 19 years and 55 to 64 years age categories as shown on Table 2. The category of persons aged under five years, 20 to 54 years and 65 years and over in the Borough has shown a decline since 2000. Monmouth Beach's median age has increased by 4.1 years since 2000 from 44.6 years of age to 48.7 years of age in 2010. The Monmouth Beach, New Jersey, and the United States subcategories all show an increase in median age between 2000 and 2010; Monmouth County experienced a decline in median age from 2000 to 2010.

Table 2: Age Characteristics (2000 to 2010) - Borough of Monmouth Beach, New Jersey

| Age | 2000 | 2010 | # Change from 2010 to 2010 |
|---------------------------|--------------|--------------|----------------------------|
| Under 5 years | 206 | 129 | -77 |
| 5 to 19 years | 566 | 578 | 12 |
| 20 to 54 years | 1,639 | 1,311 | -328 |
| 55 to 64 years | 452 | 556 | 104 |
| 65 years and over | 732 | 705 | -27 |
| Total (population) | 3,595 | 3,279 | -316 |
| Median Age | | | |
| Monmouth Beach | 44.6 | 48.7 | 4.1 |
| Monmouth County | 44.6 | 41.3 | -3.3 |
| New Jersey | 36.7 | 39.0 | 2.3 |
| United States | 35.3 | 37.2 | 1.9 |

Source: U.S. Census – 2000, 2010

3. Average Household Size. The average household size for the Borough decreased slightly from 2000 to 2010, with the 2010 average household size of 2.19 persons.

Table 3: Average Household Size (2000 to 2010) - Borough of Monmouth Beach, New Jersey

| Year | Total Population | Number of Households | Average Household Size |
|------|------------------|----------------------|------------------------|
| 2000 | 3,595 | 1,969 | 2.20 |
| 2010 | 3,279 | 1,981 | 2.19 |

Source: U.S. Census – 2000, 2010

4. Household Income. Detailed household income figures are shown in the following table. As shown, 51 percent of the Borough's households had an income of \$100,000 or more in 2015 which is an increase of six percent over the 2011 household income. Despite the total household decrease from 2011 to 2015, the Borough's median household income has significantly increased since 2011. Further, the Borough's 2015 median household income is more than 20 percent greater than the 2015 median household income for Monmouth County. This higher income reflects the relative value of single family residences in Monmouth Beach, which is the predominant housing stock in the Borough.

Table 4: Household Income (2011 to 2015) - Borough of Monmouth Beach, New Jersey

| Income Category | 2011 | | 2013 | | 2015 | |
|----------------------------------|-----------------|--------------|-----------------|--------------|------------------|--------------|
| | Number | Percent | Number | Percent | Number | Percent |
| Less than \$10,000 | 66 | 4.1 | 67 | 4.3 | 53 | 3.7 |
| \$10,000 to \$14,999 | 43 | 2.7 | 55 | 3.5 | 33 | 2.3 |
| \$15,000 to \$24,999 | 39 | 2.4 | 72 | 4.6 | 109 | 7.6 |
| \$25,000 to \$34,999 | 77 | 4.8 | 58 | 3.7 | 41 | 2.9 |
| \$35,000 to \$49,999 | 103 | 6.4 | 126 | 8.0 | 117 | 8.2 |
| \$50,000 to \$74,999 | 381 | 23.5 | 306 | 19.4 | 184 | 12.9 |
| \$75,000 to \$99,999 | 173 | 10.7 | 207 | 13.2 | 160 | 11.2 |
| \$100,000 to \$149,999 | 254 | 15.7 | 213 | 13.5 | 221 | 15.4 |
| \$150,000 to \$199,999 | 141 | 8.7 | 134 | 8.5 | 144 | 10.1 |
| \$200,000 or more | 342 | 21.0 | 336 | 21.3 | 369 | 25.7 |
| Total Households | 1,619 | 100.0 | 1,574 | 100.0 | 1,431 | 100.0 |
| Borough Median H/H Income | \$82,188 | | \$83,589 | | \$103,287 | |
| County Median H/H Income | \$83,842 | | \$84,526 | | \$85,242 | |

Sources: American Community Survey 5-Year Estimates.

5. Housing Cost Burden. Households that pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation, and medical care. Despite Monmouth Beach's high median household income for 2015 as shown above, the data on Table 5 below reveals that approximately 41.5 percent of owner and rental-occupied households had housing costs of 30 percent or more, are currently living on zero or negative income, or no cash rent. According to the US Department of Housing and Urban Development, households with zero or negative income are assumed to be severely burdened regarding household costs, while renters paying no cash rent are assumed to be without burdens.

6. One potential reason for the rising housing cost burden is the increased value and cost of housing in the Borough, especially those residential units built after Superstorm Sandy.

**Table 5: Housing Cost as Percentage of Income (2011 to 2015) –
Borough of Monmouth Beach, New Jersey**

| Percentage of Income | 2011 | | 2015 | |
|---------------------------|--------------|--------------|--------------|--------------|
| | Number | Percent | Number | Percent |
| Less than 20 percent | 500.3 | 30.9 | 476.5 | 33.3 |
| 20.0 to 29.9 percent | 398.3 | 24.6 | 342.0 | 23.9 |
| 30 percent or more | 657.3 | 40.6 | 585.3 | 40.9 |
| Zero or negative income | 21.0 | 1.3 | 8.6 | 0.6 |
| No cash rent ¹ | 42.1 | 2.6 | 18.6 | 1.3 |
| Occupied Units | 1,619 | 100.0 | 1,431 | 100.0 |

Sources: U.S. Census –American Community Survey 5-Year Estimates.

1. The number of housing units that are renter occupied without payment of cash rent. The unit may be owned by friends or relatives who live elsewhere and who allow occupancy without charge. Rent-free houses or apartments may be provided to compensate caretakers, ministers, tenant farmers, sharecroppers, or others.

The Borough demographic data outlined above are provided to give context to the existing conditions in Monmouth Beach. Regarding impervious and building coverage, the background information offers data explaining how the costs of housing relative to household income and any changes over the last several years affect the type and scale of residential development since Superstorm Sandy.

1.4 EXISTING ZONING DISTRICTS

The Borough of Monmouth Beach's Chapter 30 Land Use Regulations (Section 30-11.4) is zoned with the following districts, as shown on **Figure 2, Zoning Map**:

- A Single Family Residential (approximate land area: 253.34 acres; 467 lots)
 - A-1 Single Family Residential (approximate land area: 234.18 acres; 694 res lots)
 - A-2 High Rise Residential (approximate land area: 17.32 acres; 19 lots (12 condominium ownership units))
 - A-3 Apartment/Townhouse Residential (approximate land area: 36.49 acres; 442 lots (431 condominium ownership units))
 - B Business-Retail (approximate land area: 11.88 acres; 36 lots)
 - B-1 Business-Marina (approximate land area: 14.90 acres; 13 lots)
 - B-2 Business-Special (approximate land area: 2.92 acres; 17 lots (15 condominium ownership units))
- Each of the zoning districts have the following permitted uses, required accessory uses, permitted accessory uses and uses permitted as conditional uses:

A District:

Permitted uses: Single family homes.

Required accessory uses: Off-street parking subject to provisions of Section 30-8.21.

Permitted accessory uses: Private garages or carports; Fences and walls. (Section 30-5.31); Private swimming pools. (Section 30-8.22); Signs. (Section 30-8.27); Small wind energy systems and solar energy system (Section 30-5.32).

Uses permitted as conditional uses: Public utilities. (Section 30-9.3).

A-1 District:

Permitted uses: Single family homes.

Required accessory uses: Off-street parking subject to provisions of Section 30-8.21.

Permitted accessory uses: Private garages or carports; Fences and walls. (Section 30-5.31); Private swimming pools. (Section 30-8.22); Signs. (Section 30-8.27); Small wind energy systems and solar energy system (Section 30-5.32).

Uses permitted as conditional uses: Public utilities. (Section 30-9.3); (Deleted 12/11/1979); Private and public schools. (Section 30-9.4); Churches. (Section 30-9.2).

A-2 District:

Permitted uses: Single family home and high-rise apartments subject to the provisions of Section 30-8.19.1.

Required accessory uses: Off-street parking subject to provisions of Section 30-8.21; Off-street loading for uses other than single family homes subject to the provisions of Section 30-8.20.

Permitted accessory uses: Private garages or carports; Fences and walls. (Section 30-5.31); Private swimming pools. (Section 30-8.22); Private club swimming pools. (Section 30-8.8); The following uses within high rise residential developments: a. Professional Offices. b. Outdoor recreational facilities. c. Health clubs. d. Restaurants and meeting rooms. e. Small shops; Signs. (Section 30-8.27); Small wind energy systems and solar energy system (Section 30-5.32).

Uses permitted as conditional uses: Public utilities. (Section 30-9.3); (Deleted 12/11/1979); Private and public schools. (Section 30-9.4); Churches. (Section 30-9.2); Professional office building. (Section 30-9.8); Marinas. (Section 30-9.5); Private yacht clubs and private beach clubs. (Section 30-9.7).

A-3 District:

Permitted uses: Single family home and garden apartments or townhouses subject to the provisions of Section 30-8.19.2.

Required accessory uses: Off-street parking subject to provisions of Section 30-8.21; Off-street loading for uses other than single family homes subject to the provisions of Section 30-8.20.

Permitted accessory uses: Private garages or carports; Fences and walls. (Section 30-5.31); Private swimming pools. (Section 30-8.22); Private club swimming pools. (Section 30-8.8); Signs. (Section 30-8.27); Small wind energy systems and solar energy system (Section 30-5.32).

Uses permitted as conditional uses: Public utilities. (Section 30-9.3); (Deleted 12/11/1979); Private and public schools. (Section 30-9.4); Churches. (Section 30-9.2); Marinas. (Section 30-9.5); and Private yacht clubs. (Section 30-9.7).

B District:

Permitted uses: A retail store where goods are sold, or personal services rendered provided there is no fabrication, manufacturing, converting, altering, furnishing, or assembly, except incidental to such retail sale on the premises, provided that these uses shall be confined to the first floor of the premises and that no supplies, materials, or goods are stored outdoors; Bank or office of a doctor, lawyer, insurance agent, real estate agent, accountant and similar profession; Service activities such as barber shops, beauty salons, photographers, studios, tailors, shoe repair, radio and television repairs, and cleaners not to do work on the premises; Restaurants and meeting rooms; Public buildings and uses.

Required accessory uses: Off-street parking subject to provisions of Section 30-8.21; Off-street loading for uses other than single family homes subject to the provisions of Section 30-8.20.

Permitted accessory uses: Fences and walls. (Section 30-5.31); Signs. (Section 30-8.27); Small wind energy systems and solar energy system (Section 30-5.32).

Uses permitted as conditional uses: Public utilities. (Section 30-9.3); Private and public schools. (Section 30-9.4); Churches. (Section 30-9.2); Child care centers. (Section 30-9.9).

B-1 District:

Permitted uses: A retail store where goods are sold, or personal services rendered provided there is no fabrication, manufacturing, converting, altering, finishing, or assembly, except incidental to such retail sale on the premises, provided that these uses shall be confined to the premises and that no supplies, materials, or goods are stored outdoors; Bank or office of a doctor, lawyer, insurance agent, real estate agent, accountant and similar profession; Service activities such as barber shops, beauty salons, photographers, studios, tailors, shoe repair, radio and television repairs, and cleaners not to do work on the premises; Restaurant and meeting rooms; Private beach clubs; Marinas; Private yacht clubs; Public buildings and uses.

Required accessory uses: Off-street parking subject to provisions of Section 30-8.21; Off-street loading for uses other than single family homes subject to the provisions of Section 30-8.20.

Permitted accessory uses: Fences and walls. (Section 30-5.31); Signs. (Section 30-8.27); Small wind energy systems and solar energy system (Section 30-5.32).

Uses permitted as conditional uses: Public utilities. (Section 30-9.3); Private and public schools. (Section 30-9.4); Churches. (Section 30-9.2); Child care centers. (Section 30-9.9).

B-2 District:

Permitted uses: Any use for which a building or premises is being used at the time of the adoption of this Chapter 30, provided that said use is not noxious or offensive because of the emission of odor, dust, smoke, gas or noise, or that it is not dangerous to public health or safety.

Required accessory uses: Off-street parking subject to provisions of Section 30-8.21; Off-street loading for uses other than single family homes subject to the provisions of Section 30-8.20.

Permitted accessory uses: Fences and walls. (Section 30-5.31); Signs. (Section 30-8.27); Small wind energy systems and solar energy system (Section 30-5.32).

Uses permitted as conditional uses: Public utilities. (Section 30-9.3); Child care centers. (Section 30-9.9).

1.5 EXISTING ZONING REQUIREMENTS FOR COVERAGE

The Borough of Monmouth Beach's Chapter 30 Land Use Regulations (Section 30-11.4) outlines the bulk standards for the zoning districts as indicated in Table 6 on the following page.

Section 30-2.3 of the Borough's ordinance defines coverage or lot coverage as "the area of a lot covered by buildings and structures and expressed as a percentage of the total lot area." The maximum lot coverage for the B-1 District is 20 percent whereas the total coverage for buildings in the A, A-1, A-2 and A-3 districts is 27 percent; or the total lot coverage, inclusive of buildings but with the exclusion of the water surface areas of pools, is 40 percent. It should be noted that the actual regulation, as written in the Borough's Schedule of Limitations (Schedule 30-11.4), can create confusion. The regulation is written,

"1. The total lot coverage for buildings shall not exceed 27% of the lot area. 2. The total lot coverage, inclusive of the buildings but exclusive of the water surface areas of pools, shall not exceed 40% of the lot area."

While the Borough has historically interpreted this to mean a building coverage maximum of 27 percent, and a lot coverage maximum of 40 percent. The inclusion of the term "lot coverage" for both standards can create ambiguity, and a potential alternative interpretation in the future. The Borough should consider creating two separate and clarified standards, to eliminate the potential for alternative interpretation.

Table 6: Bulk Standards - Borough of Monmouth Beach, New Jersey

| Bulk Standard | A | A-1 | A-2 | A-3 | B | B-1 | B-2 |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|-----------------|-----------------|
| Minimum Lot Area (sq. ft.) | 15,000 | 9,000 | -- | -- | 7,500 | 80,000 | 25,000 |
| When contiguous to navigable waterway | 11,000 | 7,500 | -- | -- | -- | -- | -- |
| Single family home | -- | -- | 15,000 | 15,000 | -- | -- | -- |
| When contiguous to navigable waterway | -- | -- | 11,000 | 11,000 | -- | -- | -- |
| High rise apartments | -- | -- | 80,000 | -- | -- | -- | -- |
| Garden apartments or townhouses | -- | -- | -- | 80,000 | -- | -- | -- |
| Minimum Lot Width (ft.) | 100 | 75 | -- | -- | 150 | 200 | N/A |
| Single family home | -- | -- | 100 | 100 | -- | -- | -- |
| High rise apartments | -- | -- | 200 | 200 | -- | -- | -- |
| Minimum Depth (ft.) | 100 | 100 | -- | -- | 150 | 200 | N/A |
| Single family home | -- | -- | 100 | 100 | -- | -- | -- |
| High rise apartments | -- | -- | 200 | -- | -- | -- | -- |
| Garden apartments or townhouses | -- | -- | -- | 200 | -- | -- | -- |
| Minimum Front Setback (ft.) | 25 ^a | 25 ^a | -- | -- | 15 | 50 | 15 |
| Single family home | -- | -- | 25 ^a | 25 ^a | -- | -- | -- |
| High rise apartments | -- | -- | 50 | -- | -- | -- | -- |
| Garden apartments or townhouses | -- | -- | -- | 50 | -- | -- | -- |
| Minimum Rear Setback Principal Building (ft.) | 30 | 30 | 30 | 30 | 50 | 50 | 15 |
| Minimum Side Setback Principal Building (ft.) | 12 | 10 | -- | -- | 3 ^b | 25 | 3 ^b |
| Single family home | -- | -- | 12 | 12 | -- | -- | -- |
| High rise apartments | -- | -- | 25 | -- | -- | -- | -- |
| Garden apartments or townhouses | -- | -- | -- | 25 | -- | -- | -- |
| Maximum Lot Coverage by Building (%) | 27^c | 27^c | 27^c | 27^c | N/A | 20 | N/A |
| Maximum Building Height Principal Building (ft.) | 35 ^d | 35 ^d | -- | 35 ^d | 35 ^d | 35 ^d | 35 ^d |
| Single family home | -- | -- | 35 ^d | -- | -- | -- | -- |
| High rise apartments | -- | -- | None | -- | -- | -- | -- |
| Maximum Building Height Accessory Building | 18 ^e | 18 ^e | 18 ^e | 18 ^e | 18 ^e | 18 ^e | N/A |
| Minimum Livable Floor Area (sq. ft.) | -- | -- | -- | -- | N/A | N/A | N/A |
| 1-Story Home | 1,300 | 1,000 | 1,300 | 1,300 | -- | -- | -- |
| Split-level Home | 1,500 | 1,200 | 1,500 | 1,500 | -- | -- | -- |
| 2-Story Home and Bi-level | 2,300 ^f | 1,600 ^g | 2,300 ^f | 2,300 ^f | -- | -- | -- |

N/A = Not available

^a = No building shall be nearer the street than the average alignment of existing buildings within 200 feet of each side of the lot and within the same block (For the purposes of calculating the average front setback of dwellings 200 feet on either side, the yard upon which the existing principal building(s) faces shall be considered the front yard and the yard to the rear of the principal building shall be considered a rear yard).

^b = With combined side yards totaling not less than 15 feet.

^c = **1. The total lot coverage for buildings shall not exceed 27% of the lot area. 2. The total lot coverage, inclusive of the buildings but exclusive of the water surface areas of pools, shall not exceed 40% of the lot area.**

^d = See definition of building height (Section 30-2.3).

^e = Not more than 1 story.

^f = (1,200 square feet on one floor).

^g = (900 square feet on one floor).

1.6 STATE PLANNING AREA CLASSIFICATION

The New Jersey State Development and Redevelopment Plan (“SDRP”) classifies the Study Area as Planning Area 1 (“PA-1”), which is known as the Metropolitan Planning Area, and Planning Area 5B (“PA-5B”), known as Environmentally Sensitive Planning Area Barrier Island. The boundary between the two areas is split generally along Central Road. The lands of the Borough north of Central Road are PA-5B, and the lands south of Central Road are PA-1.

The primary objective of the SDRP is to guide development to areas where infrastructure is available or can be readily extended. The State Plan is intended to provide for much of the state’s future development, promote growth in cities, and other compact forms, protect the character of existing stable communities, protect natural resources, redesign areas of sprawl and revitalize cities and towns.

Typically PA-1 areas are characterized by mature settlement patterns resulting in a diminished supply of vacant land; infrastructure systems that generally are beyond or approaching their reasonable life expectancy; the need to rehabilitate housing to meet ever changing market standards; the recognition that redevelopment is, or will be in the not-too-distant future, the predominant form of growth; and a growing realization of the need to regionalize an increasing number of services and systems in light of growing fiscal constraints. In the Metropolitan Planning Area, the State Plan’s intention is to:

- Provide for much of the state’s future redevelopment
- Revitalize cities and towns
- Promote growth in compact forms
- Stabilize older suburbs
- Redesign areas of sprawl
- Protect the character of existing stable communities

New Jersey’s barrier islands are located along most of its coast, from Monmouth County to Cape May. Its development pattern is varied, including undeveloped beaches and mature dunes, intense urban development, and single-family communities, like those seen in the Borough. Historically, the barrier islands have been characterized as seasonal tourist destinations but recently, telecommuting, flextime, and retirement have contributed to a higher, year-round resident population. However, these communities still experience massive increases in seasonal populations that present their own challenges to planning and development for both peak and off-peak seasons. In the Environmentally Sensitive Area Barrier Island, the State Plan’s intention is to:

- Accommodate growth in centers
- Protect and enhance the existing character of barrier island communities
- Minimize the risks from natural hazards
- Provide access to coastal resources for public use and enjoyment
- Maintain and improve coastal resource quality
- Revitalize cities and towns

1.7 COASTAL ZONE MANAGEMENT RULES

The New Jersey Department of Environmental Protection's Division of Land Use Regulation regulates the use and development of coastal lands in the Borough through the Coastal Area Facility Review Act (CAFRA), which established the CAFRA zone, N.J.S.A. 13:19-1 et seq., and the Waterfront Development Law, N.J.S.A. 12:5-1 et seq., and the Coastal Zone Management Rules at N.J.A.C. 7:7. The Division determines whether an activity is regulated based on the activity itself and its location within the coastal zone.

Coastal Zone Management Rules at N.J.A.C. 7:7 regulates impervious coverage limits for areas that fall within the CAFRA zone. N.J.A.C. 7:7-13.17 provides the rules and regulations for determining the impervious coverage of a property. According to Table H of N.J.A.C. 7:7-13.17, for those areas identified as Metropolitan Planning Areas (PA1), as described in the previous section, the limit to permitted impervious coverage is 80 percent. For those areas identified as Environmentally Sensitive Planning Areas (PA5), of which PA5B is considered a part of, the permitted impervious coverage limit is three percent. However, according to N.J.A.C. 7:7-13.17(e)2, a site's impervious coverage limit can also be calculated to be the area covered by buildings, and/or asphalt or concrete pavement legally existing on the site at the time the application is submitted to NJDEP, excluding those areas used for marina operations.

2. SCOPE OF STUDY

2.1 METHODOLOGY

The analysis conducted for both pre- and post-Sandy land coverage estimates was calculated using tools and functions found in ArcGIS 10.4, the Spatial Analyst extension, and aerial imagery from 2012¹ and 2015².

Upon downloading, each aerial image was reclassified by changing the visible bands: Red Channel from Band 1 to Band 4 (near infrared which emphasizes vegetation), Green Channel from Band 2 to Band 1 (red band which emphasizes human-made objects), and Blue Channel remained as Band 3 (blue band which emphasizes water bodies). Next, a training sample was created for each image, identifying the pieces to extract from the images, which included: Grass, Roads, Roof, Water, Driveway/Patio, Beach, Pool, and Bare Earth.

A ‘Segment Shift’ function was then performed on each image. A ‘Segment Shift’ is a function in ArcMap that helps identify features or objects in the imagery by grouping adjacent pixels that have similar spectral characteristics. The user can control the level of detail that pixels can be grouped or separated. The function was performed under the following parameters:

- *Spectral Detail* was equal to 12. This value allowed for greater detail and separation of close objects but grouped the objects if they were similar.
- *Spatial Detail* was equal to 6. The value was low enough to only look at, but not merge, near objects, but allowed for grouping of large areas.
- *Minimum Segment Size* was equal to 20 pixels.

This function allowed the user to then classify and create shapefile layers of the different “objects” identified using the Training Sample Manager in ArcView. The user identifies distinct sample areas on the image of similar land features in the imagery (roads, grass, rooftop, etc.) by drawing representative polygons. These polygons are then used by ArcMap to “train” the classifier, based on spectral characteristics, segmenting the image into specific cover types throughout the Borough. This was performed on both 2012 and 2015 aerials to determine the different coverages.

A GIS shapefile was created to identify the pre- and post-Sandy building footprints for structures throughout the Borough. This was done utilizing an existing “Building” shapefile, created in 2006, that was then updated to pre-Sandy conditions using the 2012 aerial imagery to determine the changes that have occurred. A similar process was then done, using the new pre-Sandy Building file and the 2015 aerial imagery to determine the existing post-Sandy building conditions. It should be noted that the data and attributes in either building layer provide no information that links it to its corresponding tax lot. As the features were determined and digitized from aerial imagery, the layer is intended to only serve as a general reflection of the buildings’ land cover, and not as a substitute for accurate, surveyed boundaries.

The building footprints and pool layers, for both pre- and post-Sandy, were then merged with the other classification layers for better precision.

¹ NJ 2012 - 2013 High Resolution Orthography aerials, NAD83 NJ State Plane Feet, MrSID Tiles. Published March 2013, Republished May 2013. 6 images total to ensure coverage of entire Borough.

² NJ 2015 High Resolution Orthophotography aerial, NAD83(2011) NJ State Plane Feet, MrSID Tiles. Published February 2016. 6 images total to ensure coverage of entire Borough.

The results were then visually inspected to identify as many errors as possible and corrected manually for all post-classification layers.

Once the coverage was determined, a new attribute field was created called “Surface”, and each classification was identified as either pervious or impervious surface. All surfaces that had no ability to retain any stormwater were identified as ‘Impervious’. This includes layers classified as Roads, Driveway/Patio, and Roofs. The remaining surfaces (Grass, Water, Beach, Pool, and Bare Earth) were identified as ‘Pervious’, as they all can retain some precipitation and minimize stormwater runoff. The layer was then dissolved, according to either the identified ‘Pervious’ or ‘Impervious’ surface, to create an entire Borough-wide layer, with only the two features. The ‘Impervious’ feature is the portion of the cover that constitutes the lot coverage calculation.

The ‘Tabulate Intersection’ function was then used to determine the coverage of individual tax parcels. The ‘Tabulate Intersection’ function computes the intersection between two feature classes, in this case the coverage and parcel layers, generating a table of the calculated area of the intersecting features. This function, used the parcel layer’s field “PAMS_PIN” and the land cover layer’s “Surface” field to determine an individual parcels land cover. This process was repeated for both pre- and post-Sandy coverage layer. This same process was also done with the parcel layer and the building layer, for both pre- and post-Sandy layers, to determine the building coverage for each parcel. All tables were combined into a single Microsoft Excel work file. To determine what changes have occurred to structures in the Borough since the 2015 aerals were taken, the Borough provided all new construction and demolition permits since 2013, as well as 2013-2016 Planning Board Annual Reports, as shown in **Appendix B**. This data was tabulated and checked against the most recent Google Earth aerals and street views as well as the historical imagery aerial feature to determine the changes that should have occurred since 2015. If a permit could not be cross-referenced using Google Earth, an approved new construction permit was treated as if construction had occurred, as it is likely to be constructed in the future, and an approved demolition permit was treated as if the demolition had not occurred to maximize the greatest potential for impervious cover.

A Comma-Delimited file (.csv) version of this table was saved and joined to the Borough’s parcel layer file, utilizing the “PAMS_PIN” field as the matching attribute. This data was analyzed on a Borough-wide scale, as well as at an individual zoning scale. It should be noted that a high degree of confidence in the coverage data exists on a Borough-wide level, as well as at an individual zoning level. Confidence diminishes as this data is utilized at smaller scales. Issues such as errors in projection and alignment between diverse sources of data and aerial imageries, which can be balanced out at a larger scale, loses that ability at smaller scales. This analysis is not intended to be used to determine an individual lot’s land or building coverage.

2.2 POST-SANDY COVERAGE ACTIONS

Superstorm Sandy greatly shaped the Borough’s coastline when the Atlantic Ocean breached a seawall that ran along Route 36. The breach caused substantial damage to approximately 127 homes, that required major reconstruction, of which approximately 76 homes were demolished. 36% of the Borough’s housing stock, or 748 residences, which includes 195 condominiums, sustained damage from the storm. Borough businesses were also severely impacted, with 30 claims for assistance through FEMA. The amount to restore infrastructure would cost over \$78 million. The Borough’s elementary school sustained over \$2.5 million in damages, and its public buildings were estimated to require \$3 million to renovate.

The Borough has been engaged in the reconstruction process including the rebuilding of destroyed buildings, construction of two new businesses downtown, repair of the Route 36 seawall, and the completion of beach replenishment in October 2013. Monmouth Beach received an NJDOT grant funding in June 2014 for streetscape and drainage improvements along Beach Road. Additionally, the Borough granted 119 new home permits, 112 permits for house lifts, and 187 permits for new HVAC units.

Most development in the Borough since Superstorm Sandy has come from housing rehabilitation or infill development within the existing developed neighborhoods. Data from the Borough's Construction Department indicates 151 certificates of occupancy and 93 demolition permits for residential development between 2013 and 2016. No non-residential demolition permits were issued between 2013 and 2015.

Table 7: Yearly Trend in Residential and Non-Residential Development Analysis of Certificates of Occupancy and Demolition Permits, 2001-2016 - Monmouth Beach, New Jersey

| Year | Residential | | Non-Residential |
|----------------------|-------------|---------------------------|----------------------------|
| | COs Issued | Demolition Permits Issued | Demolition Permits Issued* |
| 2001 | 14 | 0 | 0 |
| 2002 | 9 | 1 | 0 |
| 2003 | 14 | 0 | 0 |
| 2004 | 8 | 6 | 1 |
| 2005 | 7 | 9 | 0 |
| 2006 | 5 | 13 | 1 |
| 2007 | 6 | 4 | 0 |
| 2008 | 7 | 5 | 1 |
| 2009 | 5 | 8 | 1 |
| 2010 | 5 | 9 | 0 |
| 2011 | 12 | 2 | 0 |
| 2012 | 12 | 2 | 0 |
| 2013 ¹ | 22 | 34 | 0 |
| 2014 ¹ | 32 | 17 | N/A |
| 2015 ¹ | 42 | 18 | 0 |
| 2016 ¹ | 55 | 24 | 1 |
| 16 YR Total | 255 | 152 | 5 |
| 16 YR Average | 15.9 | 9.5 | 0.3 |

Source: NJ Construction Reporter

N/A = Not Available COs = Certificate of Occupancies

Demolition Permits = A demolition permit authorized for the removal of an existing building. A construction official may issue a demolition permit for a residential or nonresidential structure. For demolitions that result in the loss of a dwelling unit (a house or apartment), the number of dwellings lost are reported. For nonresidential demolitions, the number of demolition permits issued are reported.

*Demolition Permits Issued for Non-Residential do not include signs, fences, utility and miscellaneous.

1. Data obtained from the Borough's Construction Official.

3. FINDINGS

3.1 PRE-SANDY EXISTING COVERAGE

Utilizing the method described in Section 2.1, the Borough of Monmouth Beach was calculated to have approximately 42 percent impervious coverage before Superstorm Sandy. This calculation includes all tax parcels and public road rights-of-way. **Figure 3A, Pre-Sandy Coverage** provides a generalized mapping of the pre-Sandy Borough pervious, impervious, and building coverage.

Excluding rights-of-way, the Borough had a calculated impervious coverage of approximately 38 percent. The Borough had a total calculated building coverage of 14 percent. Table 8 on the following page describes calculated impervious and building coverage of each zone within the Borough. **Figures 3B, Pre-Sandy Impervious Coverage** and **3C, Pre-Sandy Building Coverage** also provide maps that shows the estimated impervious and building coverage for each parcel.

Key findings regarding pre-Sandy coverage in the Borough are as follows:

1. The single family residential zones generally had a lot coverage percentage in line with Borough ordinance standards.
2. The single family residential zones average building coverage was significantly lower compared to the maximum building coverage permitted by Borough ordinance standards.
3. The multi-family residential zones are calculated to have had a higher but similar level of impervious coverage at approximately 60 percent. However, the A-3 zone had a significantly higher building coverage level than the A-2 zone, reflecting the type of development found in each zone. The A-2 zone, which contains all dwelling units in high-rise structures, still requires vast amounts of pavement to provide adequate parking spaces for its residences, compared to the A-3 zone, which have several 2-story structures and smaller parking lots adjacent to its structures.
4. All business districts had a higher amount of impervious coverage and a lower amount of building coverage, typical of suburban commercial development.

3.2 POST-SANDY EXISTING COVERAGE

Utilizing the method described in Section 2.1, the Borough of Monmouth Beach was calculated to have approximately 44 percent impervious coverage after Superstorm Sandy. This includes all tax parcels and public road rights-of-way. **Figure 4A, Post-Sandy Coverage** provides a generalized mapping of the pervious, impervious, and building coverage of the Borough post-Sandy.

Excluding rights-of-way, the Borough's impervious coverage is calculated to be approximately 39 percent. The Borough had a total calculated building coverage of approximately 15 percent. Table 8 on the following page describes the total and average size and coverage of each zone within the Borough. **Figures 4B, Post-Sandy Impervious Coverage** and **4C, Post-Sandy Building Coverage** also provide maps that show the calculated impervious and building coverage for each parcel.

Key findings regarding post-Sandy coverage in the Borough are as follows:

1. Within the single family residential zones, the findings indicate that the Borough building coverage is significantly lower than the maximum building coverage permitted by Ordinance.
2. At 38 percent, the A-1 zone is generally approaching the maximum permitted impervious lot coverage of 40 percent.
3. The multi-family residential zones (A-2 and A-3), as well as some of the business zones (B-1 and B-2) are calculated to have increases to its impervious coverage than the pre-Sandy findings. However, as no increase to calculated building coverage has occurred, nor has there been any known significant changes to the zones, it can be assumed this calculated increase can be attributed to an error in the analysis.
4. All business districts continue to have a high level of impervious coverage, and low level of building coverage, generally similar when taking error into account.

Table 8: Pre- and Post-Sandy Impervious and Building Coverage - Monmouth Beach, New Jersey

| Zoning | Pre-Sandy Coverage (%) | | Post-Sandy Coverage (%) | |
|--------|------------------------|----------|-------------------------|----------|
| | Impervious | Building | Impervious | Building |
| A | 31.5 | 11.8 | 31.4 | 12.4 |
| A-1 | 34.6 | 15.3 | 38.4 | 16.4 |
| A-2 | 63.8 | 13.9 | 64.6 | 13.9 |
| A-3 | 61.0 | 21.0 | 62.1 | 21.0 |
| B | 58.6 | 18.9 | 61.8 | 19.5 |
| B-1 | 78.1 | 9.4 | 82.8 | 9.4 |
| B-2 | 56.9 | 12.0 | 55.4 | 12.0 |

3.3 CHANGES IN COVERAGE

Table 9 below summarizes the key changes in coverage calculated in the Borough before and after Sandy.

Table 9: Changes in Impervious and Building Coverage - Monmouth Beach, New Jersey

| Zone | Impervious | | | Building | | |
|--------------|-----------------|-------------|-------------|-----------------|-------------|-------------|
| | Total (SF) | Avg. (SF) | Percent (%) | Total (SF) | Avg. (SF) | Percent (%) |
| A | -14,755 | -32 | -0.1 | +59,582 | +130 | +0.6 |
| A-1 | +363,393 | +539 | +3.7 | +106,114 | +153 | +1.1 |
| A-2 | +9,834 | +1,093 | +0.9 | 0 | 0 | 0 |
| A-3 | +15,540 | +1,943 | +1.1 | 0 | 0 | 0 |
| B | +16,825 | +455 | +3.2 | +3,226 | +87 | +0.6 |
| B-1 | +18,060 | +1,389 | +4.7 | 0 | 0 | 0 |
| B-2 | -1,878 | -939 | -1.5 | 0 | 0 | 0 |
| Total | +407,019 | +346 | +1.7 | +168,922 | +138 | +0.7 |

According to the coverage calculations, the Borough experienced an increase of approximately 1.7 percent of impervious coverage and approximately 0.7 percent building coverage since before Sandy. We note that while every reasonable attempt to maintain accuracy has been made, the area calculations listed in Table 9 are based on the best and most recent GIS tax data available and an interpretation of aerial imagery. The data has been through several steps and layers of GIS functions and analysis and a reasonable level of error is to be expected. The area calculations are intended to provide the reader a tangible quantity of change to each zone's impervious and building coverage, as well as the average change experienced on a per lot level. For policy purposes, the area calculations for percentage change, rather than the raw square footage, should be considered. **Figures 5A, Change in Impervious Coverage** and **5B, Change in Building Coverage** also provide maps that show the calculated changes in impervious and building coverage for each parcel from pre- and post-Sandy.

Key findings of the changes in coverage include:

1. An increase in impervious coverage occurred in most zones, excluding the A and B-2 zones. According to the analysis, B-1 zone experienced the greatest change, having an impervious coverage increase of 4.7 percent. However, upon reviewing all background documents and discussions with the Borough, no new major construction had occurred. This increase can be attributed to errors occurred during segmenting and classifying the aerial imagery.
2. Building coverage has only increased slightly. While the Borough is experiencing many new construction and renovations to its homes and businesses, many are additions and expansions of existing structures, or complete teardowns, which require demolition. The demolition is helping to offset any additional building coverage that may be occurring within the Borough.

4. RECOMMENDATIONS

For the reasons articulated in **Section 3.0** of this Report, it is recommended that the Borough Commissioners of the Borough of Monmouth Beach take the action necessary regarding lot coverage as follows:

1. This Report does not recommend the Borough amend its Lot and Building Coverage, as it finds that when accounting for error, there was no significant change to the impervious and building coverage of the Borough. However, this Report recommends that the Borough maintain accurate annual reports that include the amount of lot and building coverage variances granted, to keep an accurate account of future impervious coverage, and aid the Board in future decision making regarding lot and building variances.
2. This Report recommends the land use and development regulation schedule to be amended. The current schedule reads “1. The total lot coverage for buildings shall not exceed 27% of the lot area. 2. The total lot coverage, inclusive of buildings but exclusive of the water surface of pools, shall not exceed 40% of the lot area.”. The term “lot coverage” utilized for both standards can create confusion and alternative interpretations. It is recommended that the Borough create two separate standards; a “Building Coverage” standard of 27% and a separate Lot Coverage standard of 40%, each remaining the same standards, but defined clearly and in a way, that cannot be interpreted alternatively. The Study recommends the standards be defined as follows, with added terms in **bold** and removed terms ~~crossed out~~,
 - A. “**MAXIMUM BUILDING COVERAGE:** The total ~~lot~~**building** coverage shall not exceed 27% of the lot area.”
 - B. “**MAXIMUM LOT COVERAGE**~~BY BUILDING~~: The total lot coverage, inclusive of buildings **all structures** but exclusive of the water surface areas of pools, shall not exceed 40% of the lot area.”

The term “building” was replaced with the term “structure” in the Lot Coverage definition to ensure all improved surfaces are included, not just those that are defined as “Building”.

3. Revise and update definitions under Section 30-2.3 of the Land Use and Development Regulations
 - A. “Building”: The definition reads “A combination of materials to form a construction adapted to permanent, temporary, or continuous occupancy and having a roof.”

It is recommended to include the term “use”, ensuring those areas of a building, such as a breezeway, that can be interpreted as not strictly being a space for occupancy, but who’s roofed area can contribute to a greater perceived building mass or form. The new definition shall read, with the added term in bold, “A combination of materials to form a construction adapted to permanent, temporary, or continuous occupancy **or use** and having a roof.”
 - B. “Structure”: The existing definition reads, “Any combination of materials to form a construction for occupancy, use or ornamentation whether installed on, above, or below the surface of a parcel of land.”

This study recommends an additional statement that would clarify ‘Buildings’, as defined above, is to be included in the definition of ‘Structures’. The new definition in its entirety is to read, “Any combination of materials to form a construction for occupancy, use or ornamentation whether installed on, above, or below the surface of a parcel of land. **The term "structure" shall include a ‘building’ and any deck higher than 3 feet above the level of the ground”**

4. Zone recommendation.

- A. Single Family Residential Zones (A and A-1): Establish maximum impervious coverage for front yards. The concept attempts to minimize impervious coverage in the front yard and provides an aesthetic enhancement for single family properties. A suggestion for both zones is a 25 percent front yard impervious coverage limit, which should be sufficient for a driveway and front walkway.
- B. Multi-Family Residential and Business Zones: Establishing lot and building coverage standards for all zones, especially those zoned for business. For the Business zones, recommend a maximum building coverage of 60 percent and a maximum lot coverage of 75 percent. The multi-family zone requirements should remain as they are currently enforced.
- C. The Borough should review Section 30-8.21 regarding all ordinances pertaining to off-street parking. Such a review should include:
 - i. Parking space requirements. Many of the existing parking space requirements are high relative to how said uses operate and the number of spaces required. Excessive parking adds more impervious surface that winds up being underutilized.
 - ii. Parking stall size. The current standard for nonresidential uses in the ordinance is 10 feet wide by 20 feet deep. As residential uses are governed by New Jersey Department of Community Affairs Residential Site Improvement Standards (RSIS), parking spaces have a minimum dimension of 9 feet wide by 18 feet deep. If the ordinance requirements for parking stall size for nonresidential uses were changed to 9 feet x 18 feet, there would be 38 square feet less impervious area for every 10 feet by 20 feet parking space, which could add up quickly. In general, 9 feet by 18 feet parking stalls are accepted as a safe design standard for most personal vehicles.
 - iii. Staged Development Plan. Two aspects that are not present in these requirements are banked parking and shared parking.
 - iv. Parking Lot Design Standards
 - a. Review Parking Area Landscaping requirements (Section 30-8.21 L)
 - b. Implementing design standards that break up or disconnect the flow of runoff over parking lots.

- 5. Non-zoning related recommendations. Beyond the impervious and building coverage requirements, the following ideas are suggestions that can be implemented by the Borough, and in some cases, applicants can be encouraged to use similar ideas:
 - A. Where possible and feasible, promote techniques, strategies, and methods to retain stormwater on site. These include rain barrels, retention/rain gardens, dry wells, etc.
 - B. Consider opportunities to expand parks and open spaces within the Borough, to the extent feasible.

-
- C. Maintain the Borough's current schedule of maintenance on the existing stormwater infrastructure, ensuring it is regularly free from debris. Encourage and educate the residents on sustainable and responsible disposal of landscape debris to keep stormwater infrastructure working properly.
 - D. Future capital improvement projects to the Borough's infrastructure should focus on recharging 100 percent of stormwater, rather than just retaining, where possible and feasible.

MUNICIPAL LOT COVERAGE STUDY

MONMOUTH BEACH, NEW JERSEY



| |
|--|
| <div>FIGURE 1. PROJECT LOCATION</div> <div> <</div> |
|--|

MUNICIPAL LOT COVERAGE STUDY

MONMOUTH BEACH, NEW JERSEY

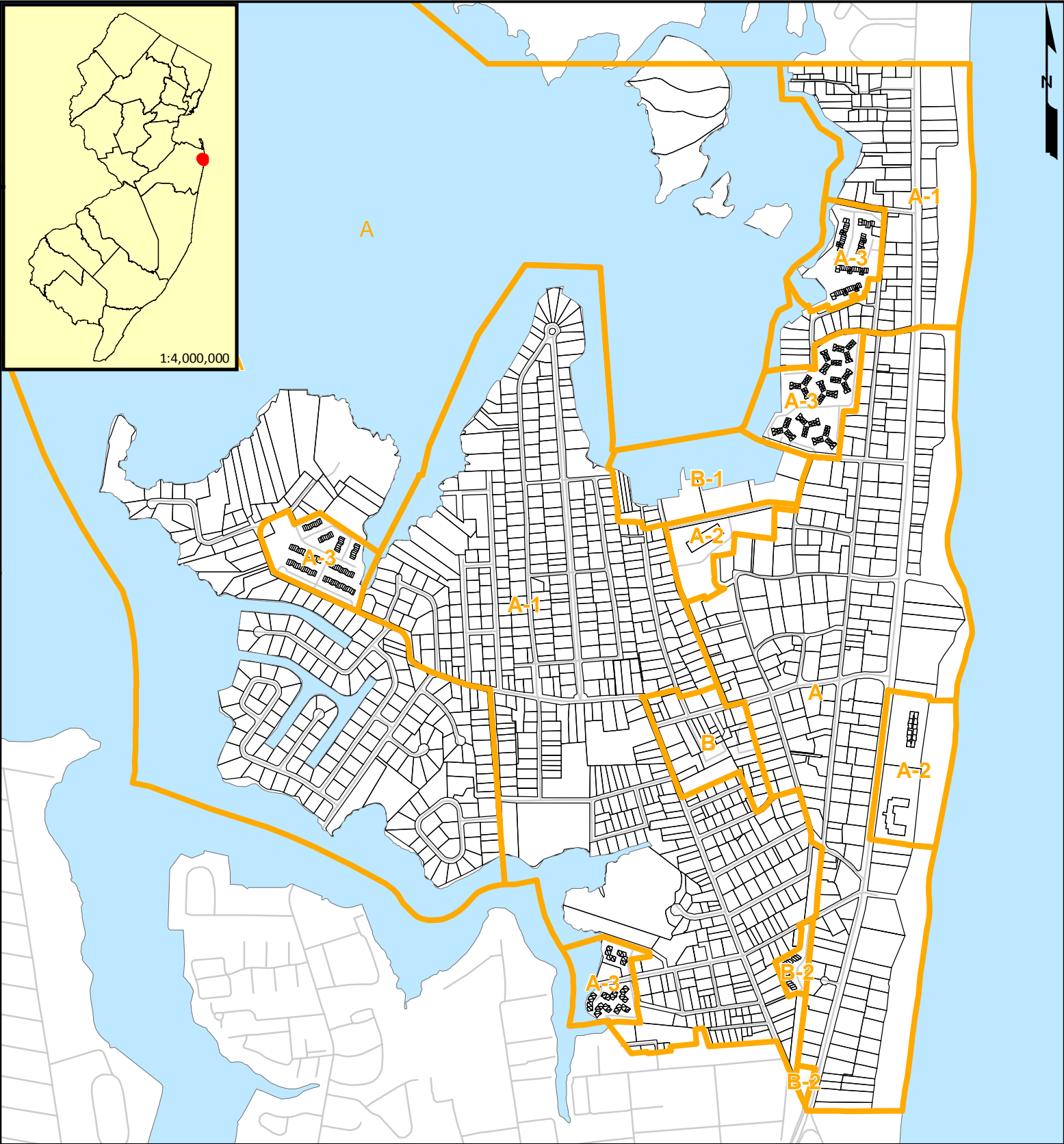


FIGURE 2.
ZONING MAP

BOROUGH OF
MONMOUTH BEACH
MONMOUTH COUNTY,
NEW JERSEY

LEGEND

- Monmouth Beach Zoning Districts
- Monmouth Beach Tax Parcels
- Streets

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26 Columbia Turnpike
Florham Park, New Jersey 07932
WBE/DBE/SBE

Tel: 973-240-1800
Fax: 973-240-1818
www.matrixnewworld.com

SOURCES
1. NJGIN

STATE PLANE COORDINATES
NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet

| | |
|------------------------------------|----------------------------|
| DRAWN BY: MM | SCALE: 1:13,000 |
| PROJECT NUMBER: LD17-155 | DATE: 10/11/2017 |

0 550 1,100 2,200
Feet

MUNICIPAL LOT COVERAGE STUDY

MONMOUTH BEACH, NEW JERSEY

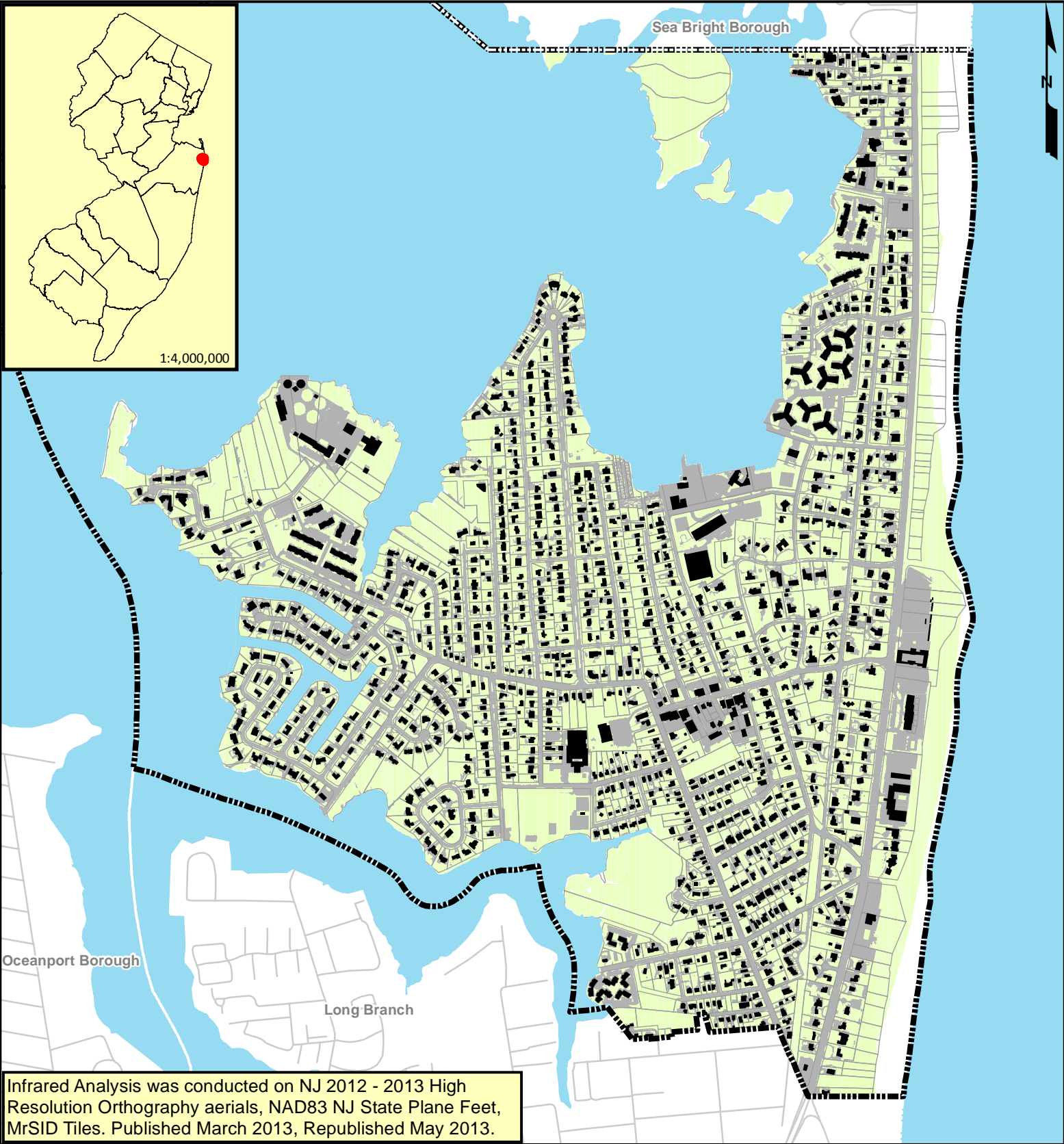


FIGURE 3.
PRE-SANDY COVERAGE
(2012 INFRARED AERIAL
IMAGERY ANALYSIS)

BOROUGH OF
MONMOUTH BEACH
MONMOUTH COUNTY,
NEW JERSEY

LEGEND

- Monmouth Beach Borough
- Other Municipalities
- Pre-Sandy Building Footprint
- Impervious
- Pervious
- Monmouth Beach Parcels
- Streets

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SOURCES

- 1.NJGIN
- 2.NJOIT, Office of GIS

STATE PLANE COORDINATES
NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet

| | |
|------------------------------------|----------------------------|
| DRAWN BY: MM | SCALE: 1:13,000 |
| PROJECT NUMBER: LD17-155 | DATE: 10/12/2017 |

0 550 1,100 2,200 Feet

MUNICIPAL LOT COVERAGE STUDY

MONMOUTH BEACH, NEW JERSEY

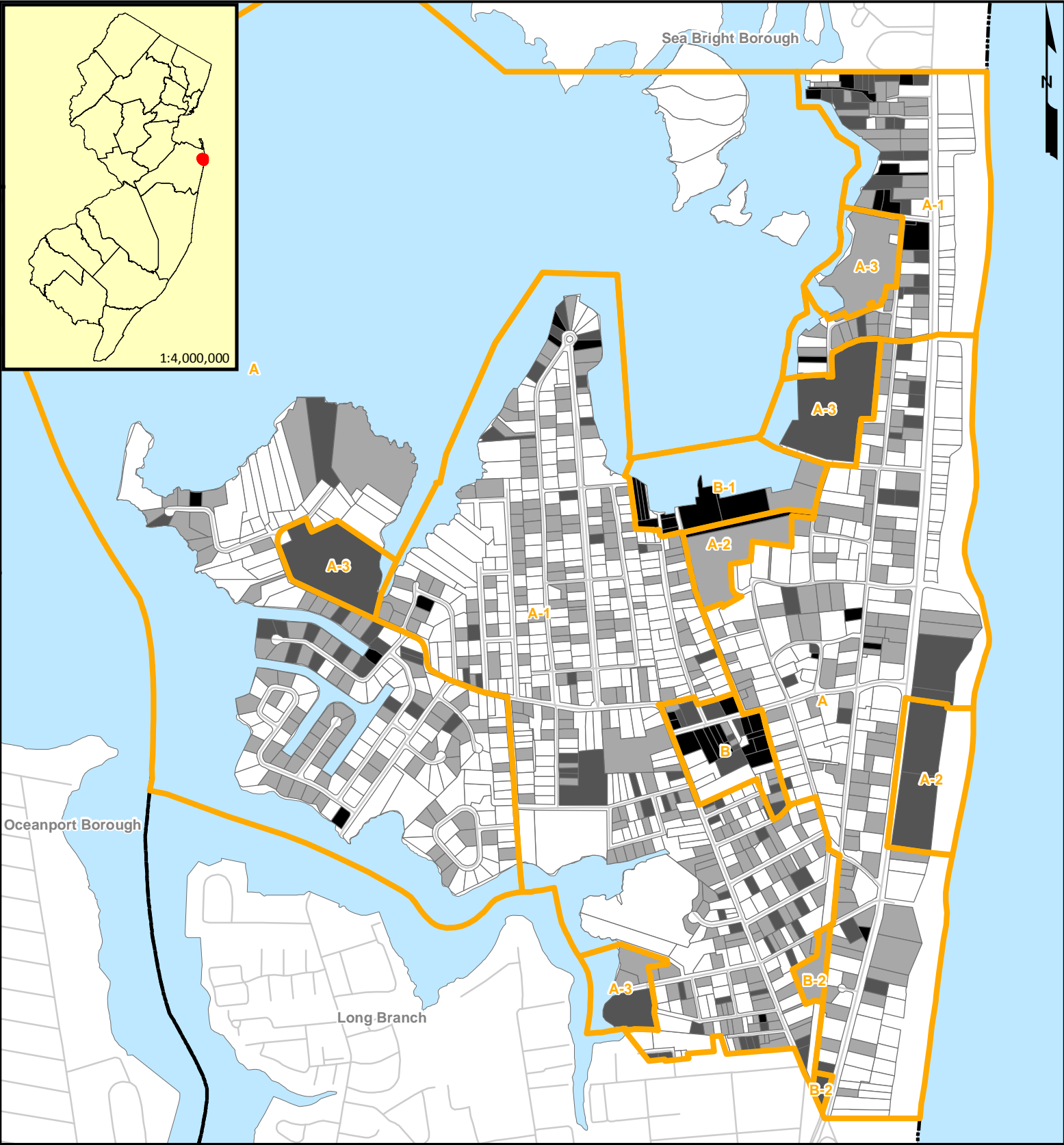


FIGURE 3B.
PRE-SANDY IMPERVIOUS
COVERAGE

BOROUGH OF
MONMOUTH BEACH
MONMOUTH COUNTY,
NEW JERSEY

LEGEND

- Municipal Boundary
- Zoning Boundaries
- 0% to 40%
- >40% to 60%
- >60% to 80%
- >80% to 100%
- Streets

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SOURCES

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2.NJOIT, Office of GIS

STATE PLANE COORDINATES
NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet

DRAWN BY:
MM

PROJECT NUMBER:
LD17-155

SCALE:
1:13,000

DATE:
10/11/2017

0 550 1,100 2,200 Feet

MUNICIPAL LOT COVERAGE STUDY

MONMOUTH BEACH, NEW JERSEY

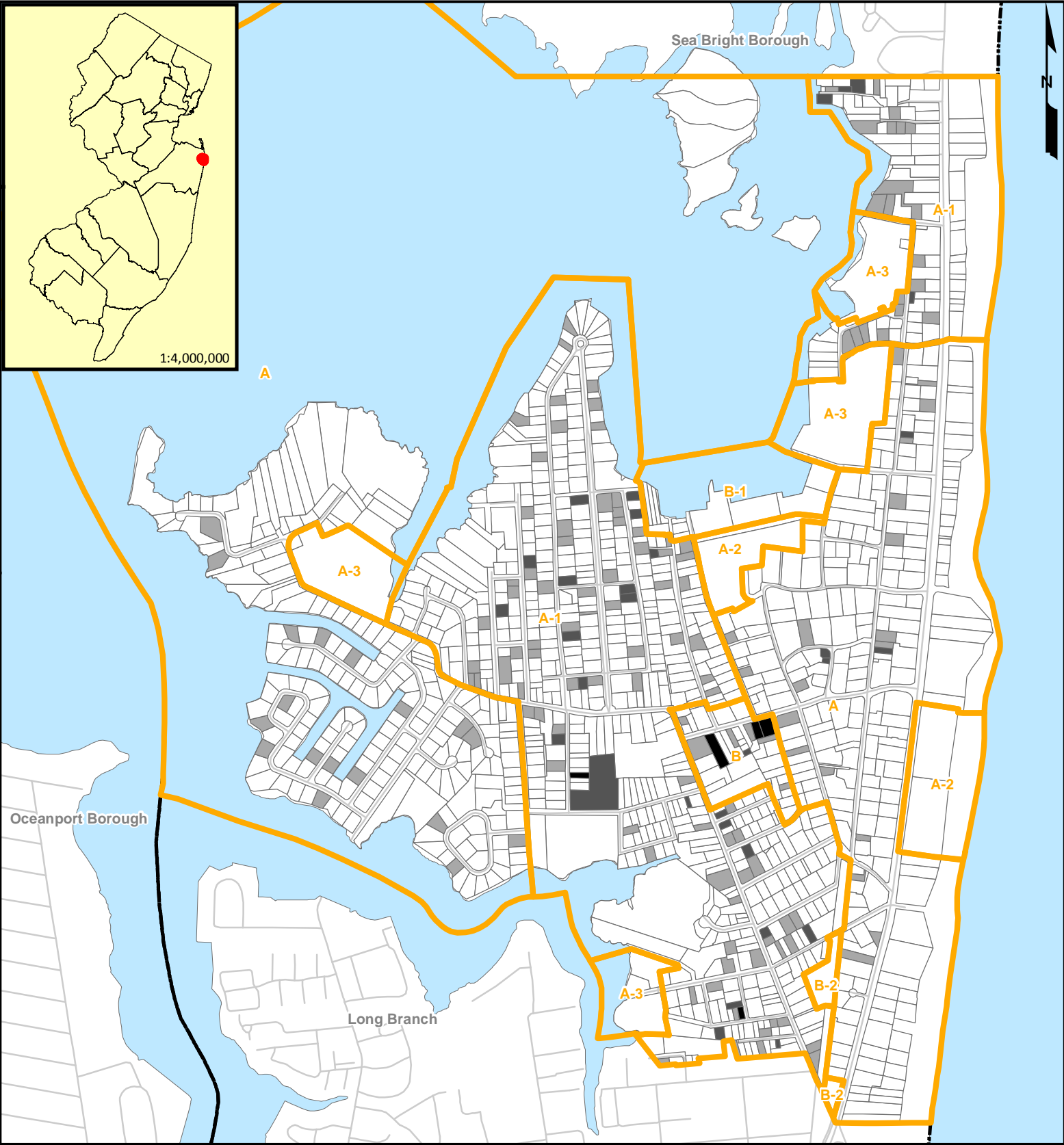


FIGURE 3C.
PRE-SANDY BUILDING
COVERAGE

BOROUGH OF
MONMOUTH BEACH
MONMOUTH COUNTY,
NEW JERSEY

LEGEND

- Municipal Boundary
- Zoning Boundaries
- 0% to 27%
- >27% to 40%
- >40% to 55%
- >55% to 70%
- Streets

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NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet

| | |
|------------------------------------|----------------------------|
| DRAWN BY: MM | SCALE: 1:13,000 |
| PROJECT NUMBER: LD17-155 | DATE: 10/11/2017 |

0 550 1,100 2,200 Feet

MUNICIPAL LOT COVERAGE STUDY

MONMOUTH BEACH, NEW JERSEY

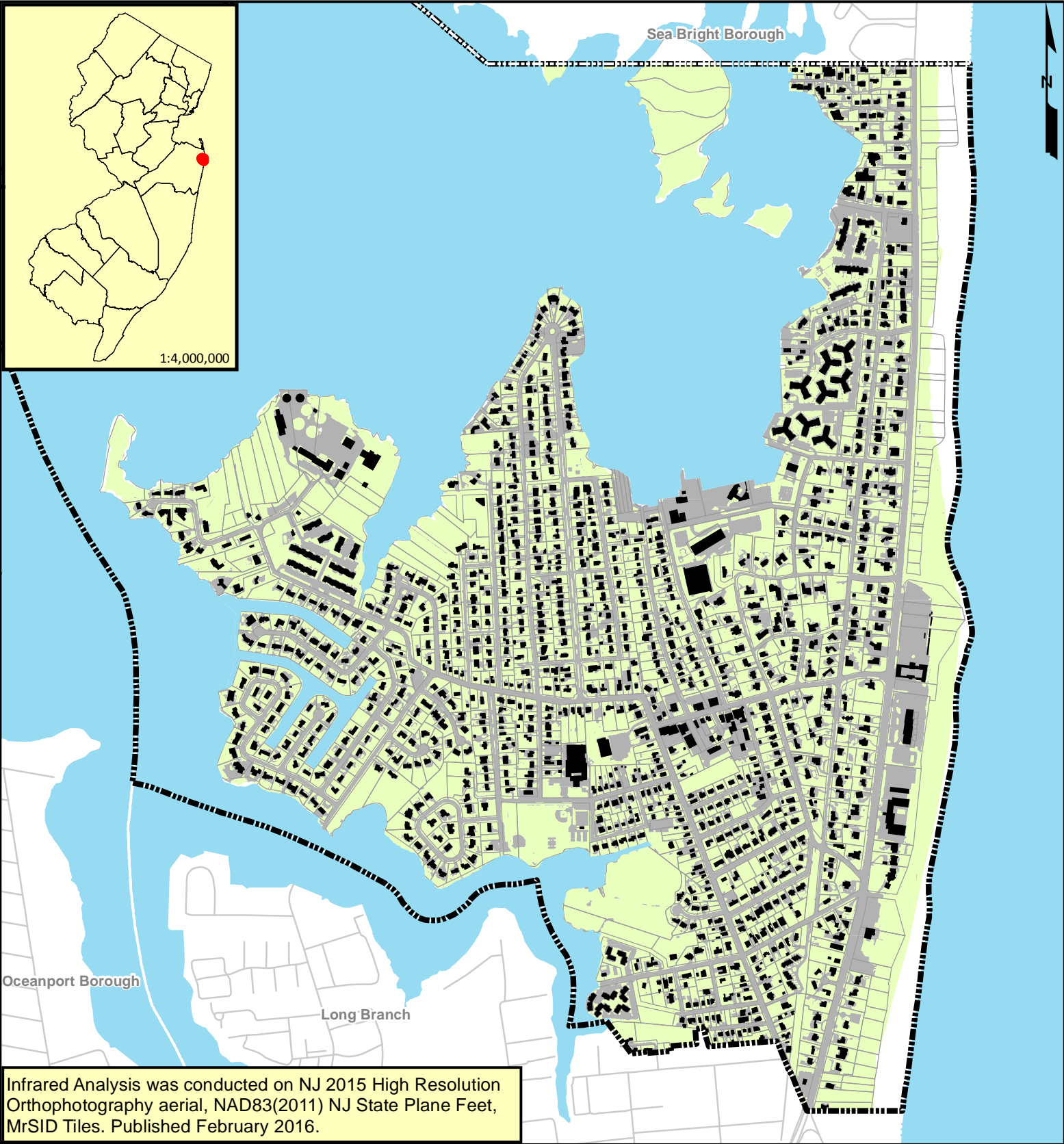


FIGURE 4.
POST-SANDY COVERAGE
(2015 INFRARED AERIAL
IMAGERY ANALYSIS)

BOROUGH OF
MONMOUTH BEACH
MONMOUTH COUNTY,
NEW JERSEY

LEGEND

- Monmouth Beach Borough
- Other Municipalities
- Post-Sandy Building Footprints (2015)
- Impervious
- Pervious
- Monmouth Beach Parcels
- Streets

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0 550 1,100 2,200
Feet

MUNICIPAL LOT COVERAGE STUDY

MONMOUTH BEACH, NEW JERSEY

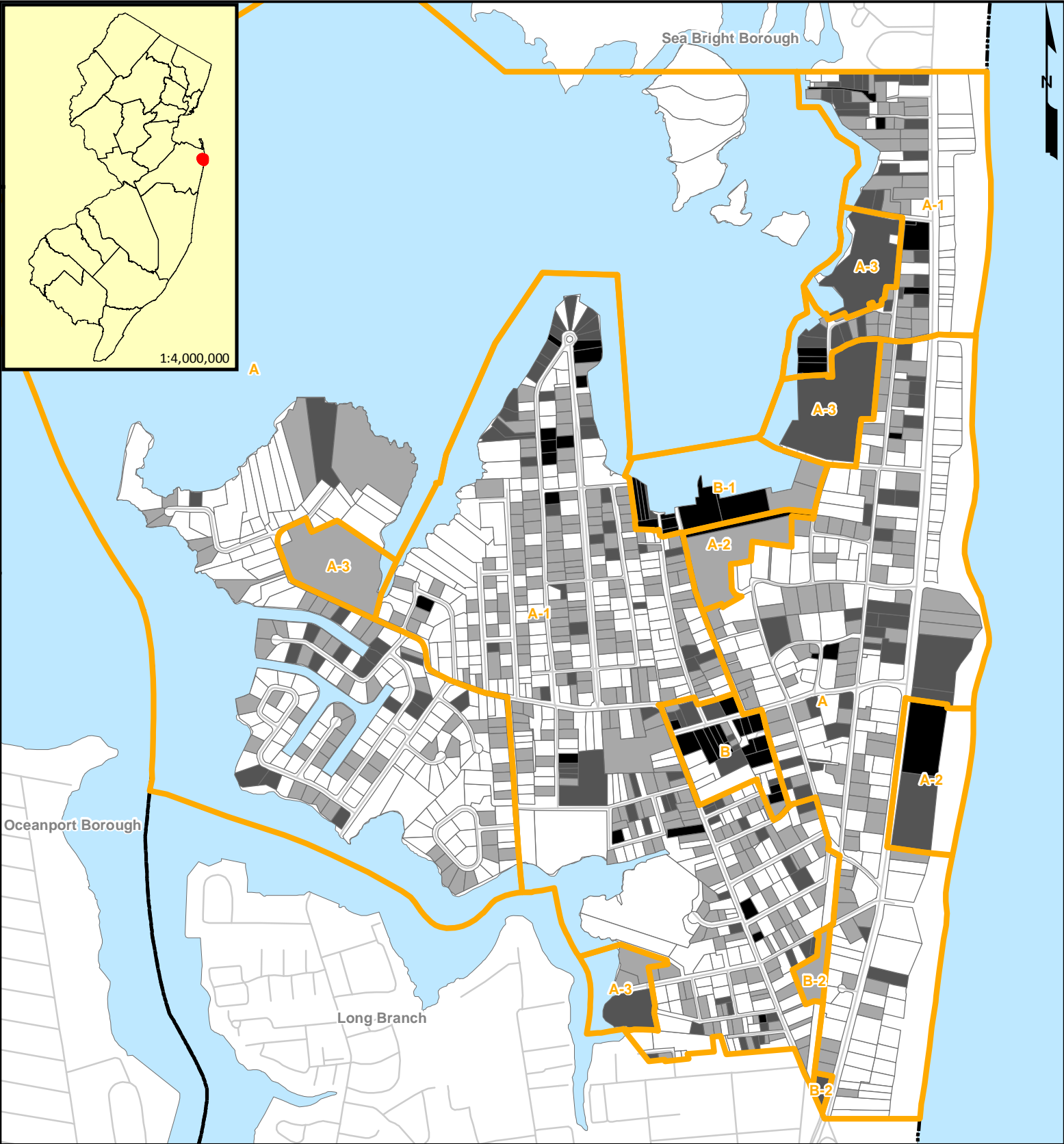


FIGURE 4B.
POST-SANDY IMPERVIOUS
COVERAGE

BOROUGH OF
MONMOUTH BEACH
MONMOUTH COUNTY,
NEW JERSEY

LEGEND

- Municipal Boundary
- Zoning Boundaries
- 0% to 40%
- >40% to 60%
- >60% to 80%
- >80% to 100%
- Streets

MATRIX**NEW****WORLD**

Engineering Progress

Matrix New World Engineering, Land Surveying
and Landscape Architecture, P.C.
26 Columbia Turnpike
Florham Park, New Jersey 07932
WBE/DBE/SBE

Tel: 973-240-1800
Fax: 973-240-1818
www.matrixnewworld.com

SOURCES

- 1.NJGIN
- 2.NJOIT, Office of GIS

STATE PLANE COORDINATES
NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet

| | |
|------------------------------------|----------------------------|
| DRAWN BY: MM | SCALE: 1:13,000 |
| PROJECT NUMBER: LD17-155 | DATE: 10/11/2017 |

0 550 1,100 2,200

Feet

MUNICIPAL LOT COVERAGE STUDY

MONMOUTH BEACH, NEW JERSEY

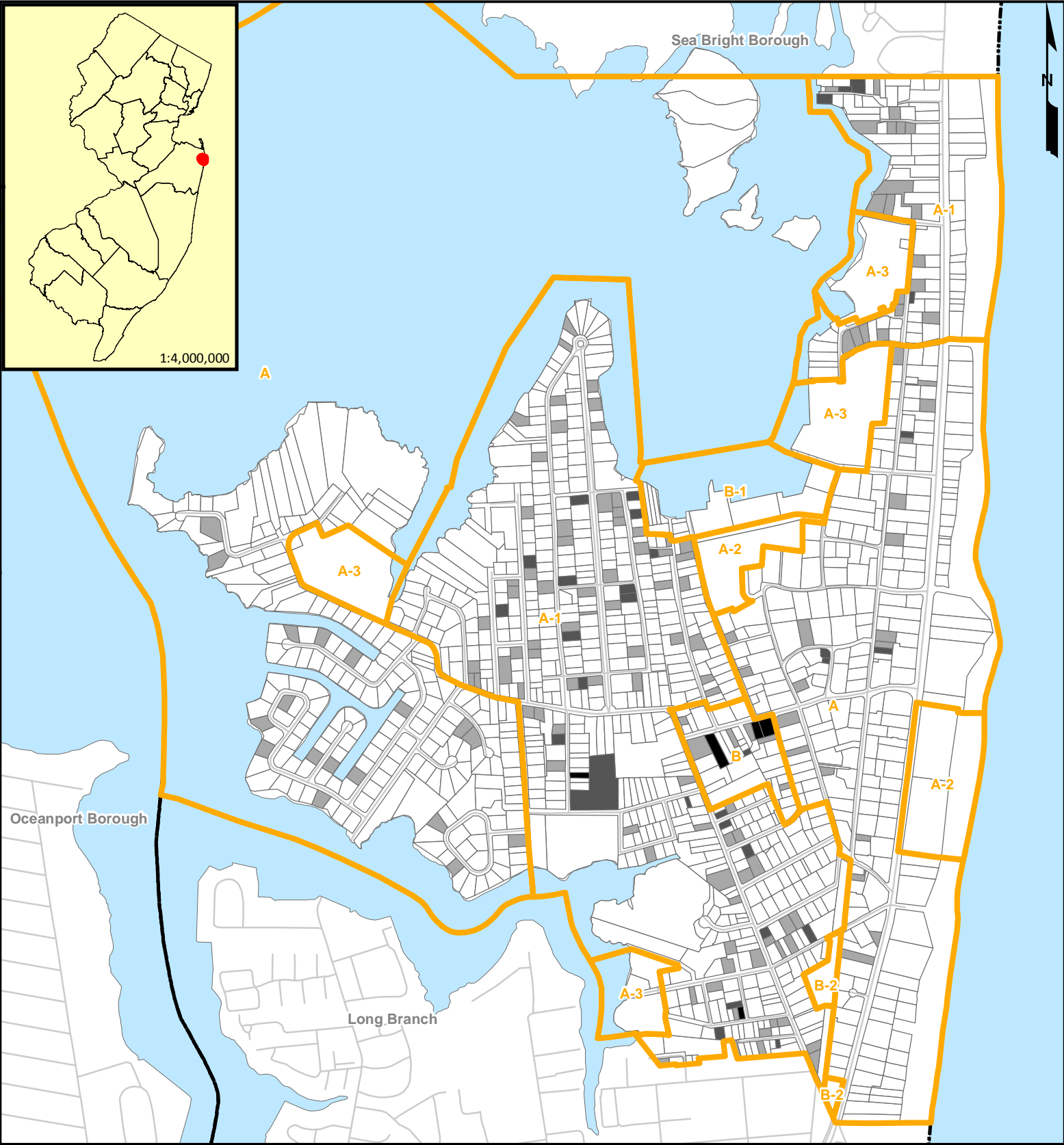


FIGURE 4C.
POST-SANDY BUILDING
COVERAGE

BOROUGH OF
MONMOUTH BEACH
MONMOUTH COUNTY,
NEW JERSEY

LEGEND

Municipal Boundary

Zoning Boundaries

0% to 27%

>27% to 40%

>40% to 55%

>55% to 70%

Streets

MATRIXNEWORLD

Engineering Progress

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and Landscape Architecture, P.C.
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Florham Park, New Jersey 07932
WBE/DBE/SBE

Tel: 973-240-1800
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SOURCES
1. NJGIN
2. NJOIT, Office of GIS

STATE PLANE COORDINATES
NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet

DRAWN BY:
MM

SCALE:
1:13,000

PROJECT NUMBER:
LD17-155

DATE:
10/11/2017

MUNICIPAL LOT COVERAGE STUDY

MONMOUTH BEACH, NEW JERSEY

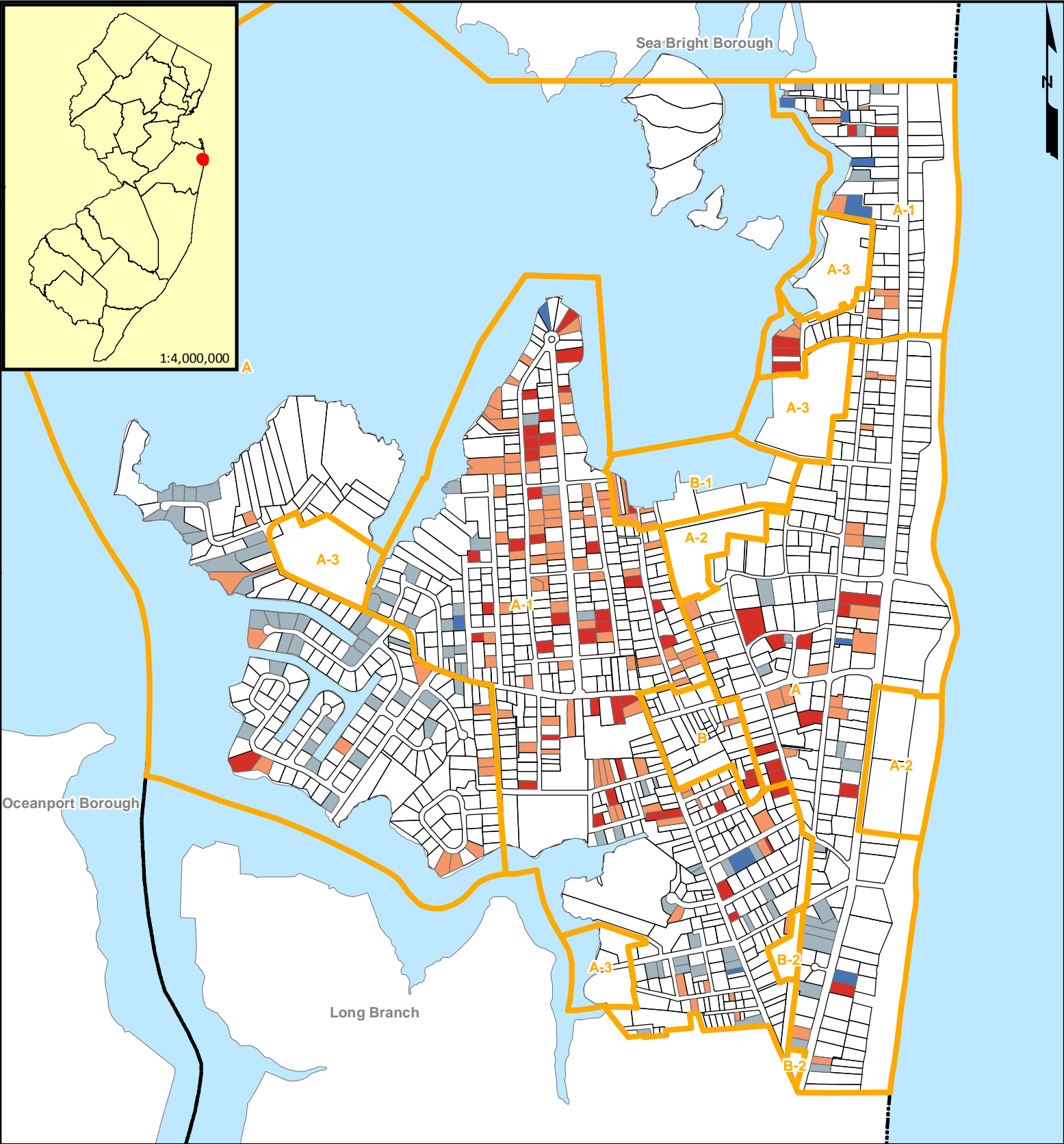


FIGURE 5A.
CHANGE IN IMPERVIOUS
COVERAGE

BOROUGH OF
MONMOUTH BEACH
MONMOUTH COUNTY,
NEW JERSEY

LEGEND

-65% to 25%

>25% to -10%

>-10% to 10%

>10% to 25%

>25% to 100%

Municipal Boundary

Zoning Boundaries

MATRIX**NEWWORLD**

Engineering Progress

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26 Columbia Turnpike
Florham Park, New Jersey 07932
WBE/DBE/SBE

Tel: 973-240-1800
Fax: 973-240-1818
www.matrixnewworld.com

SOURCES

1.NJGIN
2.NJOIT, Office of GIS

STATE PLANE COORDINATES
NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet

DRAWN BY:

MM

SCALE:

1:13,459.2

PROJECT NUMBER:

LD17-155

DATE:

10/11/2017

0

600

1,200

2,400

Feet

MUNICIPAL LOT COVERAGE STUDY

MONMOUTH BEACH, NEW JERSEY

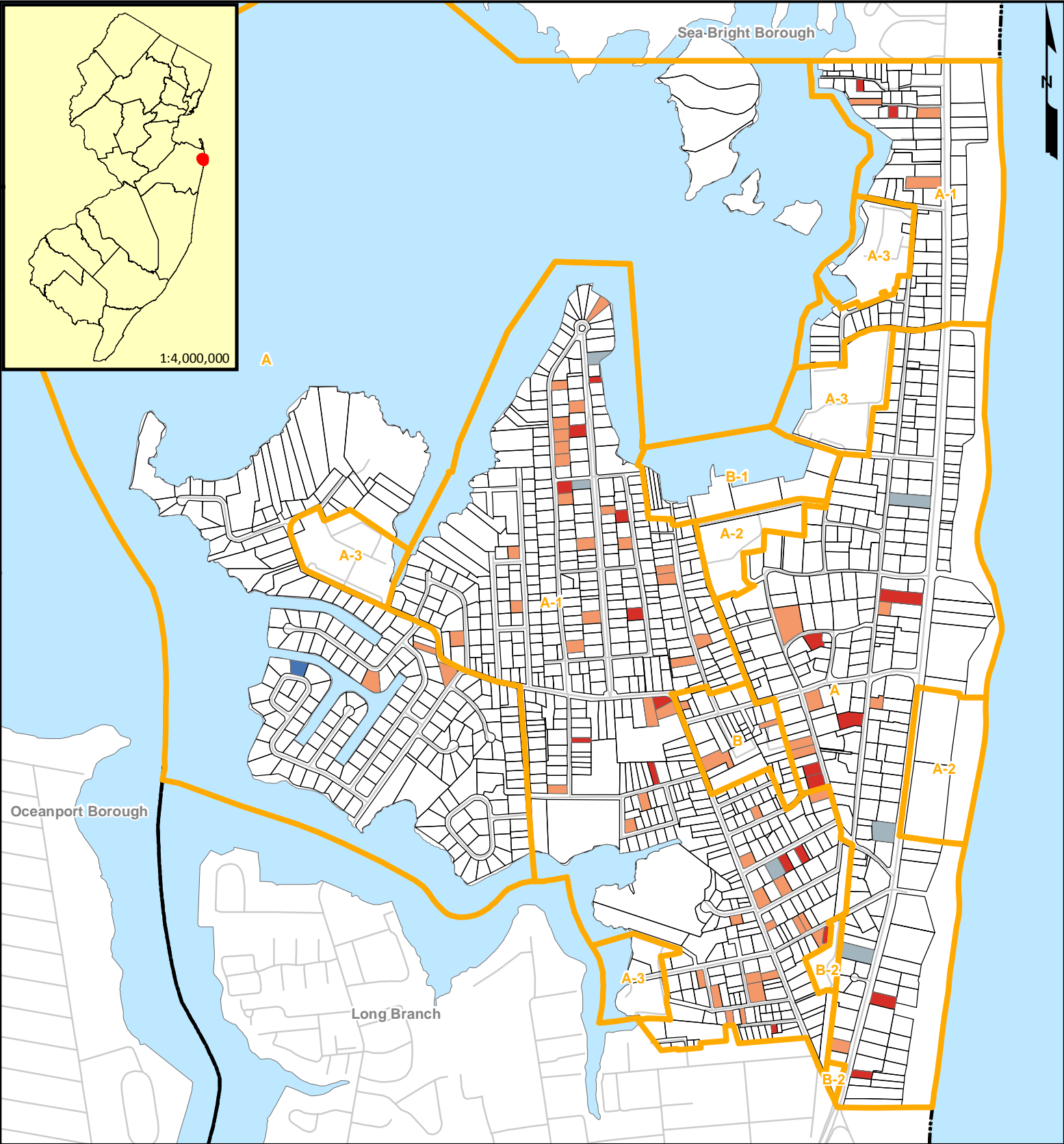


FIGURE 5B.
CHANGE IN BUILDING
COVERAGE

BOROUGH OF
MONMOUTH BEACH
MONMOUTH COUNTY,
NEW JERSEY

LEGEND

>23% to -20%

>20% to -5%

>-5% to 5%

>5% to 20%

>25% to 45%

Municipal Boundary

Zoning Boundaries

Streets

MATRIX**NEWORLD**
Engineering Progress

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26 Columbia Turnpike
Florham Park, New Jersey 07932
WBE/DBE/SBE

Tel: 973-240-1800
Fax: 973-240-1818
www.matrixnewworld.com

SOURCES
1. NJGIM
2. NJOIT, Office of GIS

STATE PLANE COORDINATES
NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet

| | |
|------------------------------------|----------------------------|
| DRAWN BY: MM | SCALE: 1:13,000 |
| PROJECT NUMBER: LD17-155 | DATE: 10/11/2017 |

0 550 1,100 2,200
Feet

APPENDIX A
BOROUGH OF MONMOUTH BEACH COMMISSIONERS
RESOLUTION NO. R-46-17

RESOLUTION
AWARDING A CONTRACT FOR THE PREPARATION OF A LOT COVERAGE STUDY AND
IMPERVIOUS COVERAGE ANALYSIS IN THE BOROUGH OF MONMOUTH BEACH

WHEREAS, proposals were solicited by the Borough of Monmouth Beach for the Preparation of a Lot Coverage Study And Impervious Coverage Analysis in the Borough of Monmouth Beach; and

WHEREAS, sealed proposals were opened and read in public by the Clerk on March 24, 2017; and

WHEREAS, four proposals were submitted, a summary of which is the following; and

| Proposal | Total Amount |
|-------------------------------|--------------|
| MatrixNeWorld | \$13,800.00 |
| T&M Associates | \$21,375.00 |
| E&LP | \$30,880.00 |
| Neglia Engineering Associates | \$37,600.00 |

WHEREAS, the Mayor and Commissioners have reviewed the proposals submitted; and


WHEREAS, the Chief Financial Officer has deemed that funds are available to make such award as per the attached Certification of Availability of Funds;

NOW, THEREFORE, BE IT RESOLVED that the contract for the Preparation of a Lot Coverage Study And Impervious Coverage Analysis in the Borough of Monmouth Beach be awarded to MatrixNeWorld, 442 State Route 35, Eatontown, NJ 07724, in the amount of \$13,800.00; and

BE IT FURTHER RESOLVED that the Mayor and Clerk be authorized to confirm and authorize the work outlined in the proposal submitted by MatrixNeWorld as referred to herein.

I hereby CERTIFY this to be a true copy of a Resolution that was passed and approved at a regular meeting of the Board of Commissioners of the Borough of Monmouth Beach held on April 25, 2017.

ATTEST:


Joyce L. Escalante, RMC
Municipal Clerk

APPENDIX B
BOROUGH OF MONMOUTH BEACH
2013-2016 PLANNING BOARD ANNUAL REPORTS

**BOROUGH OF MONMOUTH BEACH
PLANNING BOARD**

2013 Annual Report

2013 Summary of Activities

1. This Annual Report covers the year January 1, 2013 to December 31, 2013.
2. During this time span, the Borough of Monmouth Beach Planning Board held eleven (11) regular meetings.
3. The Planning Board heard a total of twenty-six (26) applications. Of that, twenty-three (23) were approved, one (1) was denied and two (2) were withdrawn.
4. Attachment No. 1 is an APPROVAL/DENIAL/DISMISSAL CHART which depicts the Board's activity of 2013. The chart highlights the variances and subdivisions submitted to the Board by zone.
5. Attachment No. 2 is a listing of each application heard in 2013.

Attachment No. 1

APPROVAL/DENIAL/DISMISSAL CHART

| | A- SINGLE FAMILY RESIDENT | A-1 SINGLE FAMILY RESIDENT | A-2 HIGH RISE APARTMENT | B-RETAIL ZONE | TOTAL |
|--|--|---|--|--------------------------|---------------------------------|
| DEMOLISHION and/or CONSTRUCTION | 0 approved 1 denied | 8 approved 0 denied | | | 8 approved 1 denied |
| VARIANCE APPLICATIONS WITHDRAWN | 2 approved 0 denied | | | | 2 approved 0 denied |
| VARIANCE ON EXISTING CONSTRUCTION | 5 approved 0 denied | 8 approved 0 denied | | | 13 approved 0 denied |
| MINOR SUBDIVISION | 2 approved 0 denied | | | | 2 approved 0 denied |
| TOTAL | 9 approved 1 denied | 16 approved 0 denied | | | 25 approved 1 denied |

Attachment No. 2

Variance Application – Robin Mastria – Block 42.05, Lot 9 – 13 Gull Point Rd.

Zone: A Single Family

Memorialization of a Resolution granting approval for a variance to permit the installation of a natural gas back-up generator.

Variance Application – Richard & Kathy Sudowsky – Block 53, Lot 5 – 24 Riverdale Ave

Zone: A-1 Single Family

Memorialization of a Resolution granting an approval for a variance pertaining to lot coverage, lot width, and front yard setback, to permit the addition of a covered front porch to the existing single-family dwelling.

Variance Application – Thomas & Lisa Weir – Block 45, Lot 87.01 – 35 Shrewsbury Drive

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the elevation and expansion of the existing single-family dwelling.

Variance Application – Mark Anthony – Block 33, Lot 26.02 – 50 Navesink Drive

Zone: A- 1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the construction of a single-family dwelling.

Variance Application – Charles & Margaret Hendricks – Block 61, Lot 8 – 10 Jessica Place

Zone: A- 1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Variance Application – Charles Cummins – Block 31, Lot 8 – 19 Spaulding Place

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the installation of a natural gas back-up generator.

Variance Application – Edward & Angela Moro– Block 28, Lot 29 – 71 Monmouth Pkwy

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Attachment No. 2 (cont.)

Variance Application – Bernadette Bonner – Block 46, Lot 10.05 – 22 Seaview Avenue

Zone: A Single Family

Memorialization of a Resolution granting an approval for a variance pertaining to lot coverage, side yard setback and driveway setback, to permit the partial construction of the 2nd and 3rd floor additions, new front porch, installation of air conditioning units, generator and new asphalt driveway, to the existing single-family dwelling.

Variance Application – Angelo Valente – Block 45.03, Lot 1.03 – 25 Riverdale Avenue

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Variance Application – Michael & Susan Walsh – Block 45.03, Lot 33 – 19 Valentine St.

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Variance Application – Glenn & Frances Partusch – Block 2, Lot 31 – 7 Sunset Lane

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the elevation of the existing two-family dwelling, and the removal of the existing front porch and replacement of same with elevated front steps and deck.

Minor Subdivision Application – Paul & Patricia Jordan – Block 21, Lot's 2 & 2.01 – 70 Ocean Ave

Zone: A-Single Family

Memorialization of a Resolution granting approval for a minor subdivision to allow a lot line adjustment and a side yard setback variance to allow the existing dwelling on Lot 2 to remain.

Variance Application – Kirk & Pam Ruoff – Block 19, Lot 1.01 – 14 Cottage Road

Zone: A-Single Family

Memorialization of a Resolution granting an approval for a variance pertaining to lot coverage and side yard setback, to permit the addition of a rear deck and patio to the existing single-family dwelling.

Variance Application – TM Custom Homes, LLC – Block 58, Lot 4 – 17 Jessica Place

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Attachment No. 2 (cont.)

Variance Application – Mark Maroney – Block 28, Lot 8.01 – 57 Monmouth Parkway

Zone: A-1 Single Family

Memorialization of a Resolution granting approval of variances to permit the single-family dwelling to be elevated above the permitted 38 ft height, a side yard setback and front yard setback .

Variance Application – Christopher & Mary Ellen Cestone – Block 43, Lot 20 –

20 Tocci Avenue

Zone: A- Single Family

Memorialization of a Resolution granting approval for a variance to permit the installation of a natural gas back-up generator.

Variance Application – Karen Zenkert Dolan – Block 34, Lot 46.01 – 24 Shrewsbury Dr

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Variance Application – Nancy Baskin – Block 44.07, Lot 6 – 5 Drew Court

Zone: A-1 Single Family

Memorialization of a Resolution granting an approval for a variance pertaining to lot coverage, side yard setback, rear yard setback and existing lot depth, to permit the expansion of the existing single-family dwelling

Variance Application – Louis Trebino – Block 31, Lot 8.01 – 21 Spaulding Place

Zone: A –Single Family

Memorialization of a Resolution granting approval for a variance pertaining to lot coverage and front yard setback, to permit the construction of a second story arched roof and a first story peaked roof over the existing front porch.

Minor Subdivision Application – James & Jane Garrett -Block 47, Lot 1 – 58 Ocean Ave

Zone: A –Single Family

Memorialization of a Resolution granting approval for a minor subdivision with a variance for lot width for the newly created lot.

Variance Application – Craig & Karyn Farrell – Block 61, Lot 11 – 14 Jessica Place

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the elevation of the existing single-family dwelling, and the addition of a front porch with elevated front steps.

Attachment No. 2 (cont.)

Variance Application – John & Pamela Murphy – Block 2, Lot's 43 & 49 – 138 Ocean Ave
Application Withdrawn, October 22, 2013
Zone: A-Single Family

Variance Application – George Katzenberger – Block 42.01, Lot 37 – 4 Harbour Way
Application Withdrawn, December 17, 2013
Zone: A-Single Family

Variance Application – John & Diane Rebele – Block 21, Lot 9.02 – 64 Ocean Ave
Zone: A-Single Family
Memorialization of a Resolution Denying the Application to permit the construction of a single-family dwelling that was not contingent with a plan that was approved in accordance with a Minor Subdivision in 2011.

Variance Application – James & Allison Reddington – Block 35, Lot 55 – 39 Shrewsbury Dr
Zone: A-1 Single Family
Memorialization of a Resolution granting approval for a variance to permit the installation of a natural gas back-up generator.

Variance Application – Lloyd & Carla Sabatelli – Block 44.03, Lot 9 – 2 Hastings Place
Zone: A-1 Single Family
Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

**BOROUGH OF MONMOUTH BEACH
PLANNING BOARD**

2014 Annual Report

2014 Summary of Activities

1. This Annual Report covers the year January 1, 2014 to December 31, 2014.
2. During this time span, the Borough of Monmouth Beach Planning Board held eleven (12) regular meetings and one (1) special meeting.
3. The Planning Board heard a total of thirty-three (33) applications. Of that, twenty-eight (28) were approved, two (4) was denied and one (1) was withdrawn.
4. Attachment No. 1 is an APPROVAL/DENIAL/DISMISSAL CHART which depicts the Board's activity of 2014. The chart highlights the variances, subdivisions and appeals submitted to the Board by zone.
5. Attachment No. 2 is a listing of each application heard in 2014.

Attachment No. 1

APPROVAL/DENIAL/DISMISSAL CHART

| | A- SINGLE FAMILY RESIDENT | A-1 SINGLE FAMILY RESIDENT | A-2 HIGH RISE APARTMENT | B RETAIL ZONE | B-1 BUSINESS MARINA | TOTAL |
|--|--|---|--|--------------------------|------------------------------------|--|
| DEMOLITION and/ or CONSTRUCTION | 6 approved 2 denied | 4 approved 1 denied | | | | 10 approved 3 denied |
| VARIANCE APPLICATIONS WITHDRAWN | | 1 withdrawn | | | | 1 withdrawn 0 denied |
| VARIANCE ON EXISTING CONSTRUCTION | 3 approved 0 denied | 8 approved 0 denied | | 3 approved 0 denied | | 14 approved 0 denied |
| MINOR SUBDIVISION | 1 approved 0 denied | 1 approved 0 denied | | | | 2 approved 0 denied |
| MAJOR SUBDIVISION | 1 approved 0 denied | 0 approved 0 denied | | | | 1 approved 0 denied |
| APPEALS | 0 approved 1 denied | | | | 1 approve 0 denied | 1 approved 1 denied |
| TOTAL | 11 approved 3 denied | 14 approved 1 denied | | 3 approved 0 denied | 1 approved 0 denied | 28 approved 4 denied 1 withdrawn |

Attachment No. 2

Variance Application – Benjamin & Charlotte Epstein – Block 42.05, Lot 23 – 12 Gull Point Rd.

Zone: A Single Family

Memorialization of a Resolution granting approval for a variance to permit the removal of an existing pool and patio and the installation of a new pool and patio.

Variance Application – Scott & Cheryl Umbs – Block 45.04, Lot 2.02 – 24 River Ave

Zone: A- Single Family

Memorialization of a Resolution denying an approval for a variance pertaining to the installation of a generator at the proposed site due to the proposed location is in violation of the current setback requirement.

Variance Application – Frank & Lisa Marucci – Block 42.01, Lot 2 – 4 Lori Road

Zone: A- Single Family

Memorialization of a Resolution granting approval for a variance to permit the construction of a single-family dwelling.

Variance Application –PJB Builders LLC – Block 45.04, Lot 8 – 10 River Ave

Zone: A- Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Variance Application –Rano Properties – Block 45.01, Lot 2 8 – 17 Johnson St

Zone: A- 1 Single Family

Application withdrawn, March 25, 2014.

Variance Application – Danielle Thorsen – Block 28, Lot 23.01 – 65 Monmouth Parkway

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the construction of a single-family dwelling.

Variance Application – Edward & Angela Moro– Block 28, Lot 29 – 71 Monmouth Pkwy

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for an amendment to a variance that permitted the demolition of the existing dwelling and the construction of a new single-family dwelling.

Minor Subdivision Application – Thomas & Laura Lovgren & Bernadette Bonner – Block 46, Lot's 10.05 & 12.01 – 22 Seaview Avenue & 11 River Avenue

Zone: A Single Family

Memorialization of a Resolution granting an approval for a variance to divide the two lots into a total of three lots and variance relief for deficient lot width for one of the lots.

Attachment No. 2 (cont.)

Variance Application – K Shaw Construction Co. LLC – Block 21, Lot 13 – 51 Seaview Ave

Zone: A- Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Variance Application – 2 Sailors Way LLC – Block 26, Lot 4 – 40 West St.

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit and authorize the prior expansion of the nonconforming deck at the rear on the single-family dwelling.

Variance Application – John & Tara Mercogliano – Block 43, Lot 27 – Tocci Avenue

Zone: A-1 Single Family

Memorialization of a Resolution denying approval for the construction of a single-family dwelling.

Variance Application – Alicia Furman – Block 44, Lot86.01 – 4 Monmouth Place

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the elevation of the existing single-family dwelling and the addition of a front dormer and new front steps.

Variance Application – Joseph & Susan Brambil – Block 15, Lot 5 – 77 Seaview Ave

Zone: A-Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Variance Application – Patrick Golden Homes, LLC – Block 54, Lot 1.01 – 43 Valentine St

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the construction of a single-family dwelling on a lot previously approved by a prior subdivision.

Variance Application – Kevin & Rosemary Dougherty – Block 52, Lot 2 – 18 Valentine St

Zone: A-1 Single Family

Memorilization of a Resolution granting approval for a D(1) Use variance to permit the reconstruction of the single-family dwelling previously partially destroyed by a fire and then completely destroyed by Superstorm Sandy.

Attachment No. 2 (cont.)

Variance Application –Barry Weisbord– Block 51, Lot 6 – 24 Ocean Avenue

Zone: A- Single Family

Memorialization of a Resolution granting approval for a variance to permit existing lot width of 64 feet, variance relief to permit the driveway to be set back 1.5 feet and relief to permit a “ribbon” driveway that is 9 feet in width.

Variance Application – Andrew Weber – Block 44.02, Lot 9 – 9 Griffin Street

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Variance Application –Andrew & Kathleen Anselmo – Block 55, Lot 1.01 – 37 Valentine St

Zone: A-1 Single Family

Memorialization of a Resolution granting an approval for a variance to permit the addition of a covered front deck, covered side entry and related staircases on the existing single-family dwelling.

Minor Subdivision Application – Daniel & Alison Zimmerman & DZAZ, LLC –

Block 45.02, Lot’s 7.01 & 12.01 – 12 & 14 Johnson Street

Zone: A-1Single Family

Memorialization of a Resolution granting approval for a minor subdivision to permit the adjustment of the common lot line between lots 7.01 and 12.01.

Major Subdivision Application – Shaw Construction Co., LLC -Block 30,

Lot’s 9.01, 13.01, 17.01 – 51, 53 & 55 Navesink Drive

Zone: A-1Single Family

Memorialization of a Resolution granting approval for a major subdivision with variance relief and design waiver to permit the demolition of 3 existing dwellings at the site and a subdivision of the 3 lots into 4 conforming single-family lots.

Appeal Application – John & Diane Rebele – Block 21, Lot 9.02 – 64 Ocean Avenue

Zone: A- Single Family

Memorialization of a Resolution affirming the determination of the Zoning Officer and denying the appeal and granting an amendment of a prior approval on the construction of the single-family dwelling on the site as part of a previous minor subdivision.

Attachment No. 2 (cont.)

Variance Application – Monmouth Beach Fire Co. & Monmouth Beach First Aid Squad – Block 45, Lot's 12 & 13 – 24 & 26 Beach Road

Zone: B

Memorialization of a Resolution granting approval for a preliminary and final major site plan approval with related bulk variance relief and design waivers to permit the expansion of both facilities.

Variance Application – Mark Kassner – Block 59, Lot 1 – 42 Valentine St

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the expansion of the existing single-family residence.

Variance Application – Jeol Weiner – Block 48.01, Lot 9.13 – 39 Ocean Avenue

Zone: A- Single Family

Memorialization of a Resolution denying a variance to permit the elevation of the existing single-family dwelling where a D variance is required for excess building height.

Variance Application - Thomas & Kathryn Ziola— Block 28, Lot 39.01 – 1 Circle Drive

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the natural gas generator.

Variance Application – Eric & Danielle Tomsky - Block 18, Lot 20.01 – 10 Central Road

Zone: A-Single Family

Memorialization of a Resolution granting approval for a variance to permit the expansion of the existing single-family dwelling.

Variance Application – Robert & Lisa Roberto – Block 45.03, Lot 1.02 – 18 Anderson St

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance approving the prior installation for the rear deck and related attached stairs on the single-family dwelling.

Variance Application – Michael Pasterchick – Block 42.01, Lot 3 – 6 Lori Road

Zone: A-Single Family

Memorialization of a Resolution granting approval for a variance for a setback deviation of the proposed stairs for a rear deck on the single-family dwelling.

Variance Application – RLMKDR, LLC – Block 45, Lot 24 – 6 Willow Avenue

Zone: B

Memorialization of a Resolution granting approval for a variance to permit expansion of a pre-existing nonconforming single-family dwelling located in the B Zone.

Attachment No. 2 (cont.)

Variance Application – Marianne Lake – Block 27, Lot 18 – 77 Riverdale Avenue

Zone: B

Memorialization of a Resolution granting approval for a variance to permit expansion of a pre-existing nonconforming single-family dwelling located in the B Zone.

Variance Application – Lawrence & Alison Stephens – Block 31.03, Lot 11.01 – 37 Columbus Drive

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the expansion of the existing single-family dwelling

Appeal Application – Morgan Realty & Development, LLC & Beach Tavern, LLC – Block 25, Lot 9.21 – 33 West Street

Zone: B-1

Memorialization of a Resolution granting an appeal and reversing the determination of the Zoning Officer with respect to the reconstruction of the restaurant in compliance with the “Sandy Exemption” statute.

**BOROUGH OF MONMOUTH BEACH
PLANNING BOARD**

2015 Annual Report

2015 Summary of Activities

1. This Annual Report covers the year January 1, 2015 to December 31, 2015.
2. During this time span, the Borough of Monmouth Beach Planning Board held twelve (12) regular meetings.
3. The Planning Board heard a total of SEVENTEEN (17) applications. Of that, (14) were approved, two (2) were withdrawn and one (1) was dismissed..
4. Attachment No. 1 is an APPROVAL/DENIAL/DISMISSAL CHART which depicts the Board's activity of 2015. The chart highlights the variances, subdivisions and appeals submitted to the Board by zone.
5. Attachment No. 2 is a listing of each application heard in 2015.

Attachment No. 1

APPROVAL/DENIAL/DISMISSAL CHART

| | A- SINGLE FAMILY RESIDENT | A-1 SINGLE FAMILY RESIDENT | A-2 HIGH RISE | B RETAIL ZONE | B-1 BUSINESS MARINA | TOTAL |
|---|--|---|--------------------------|--------------------------|------------------------------------|---|
| DEMOLITION and/ or ADDITIONS/ CONSTRUCTION | 3 approved | 8 approved | | 1 approved | | 12 approved |
| VARIANCE APPLICATIONS WITHDRAWN | 2 withdrawn | | | | | 2 withdrawn |
| VARIANCE ON EXISTING CONSTRUCTION | 1 approved | | | | | 1 approved |
| DISMISSAL BY THE BOARD | | | | | 1 dismissed | 1 dismissed |
| APPEALS | | 1 approved | | | | 1 approved |
| TOTAL | 6 approved | 9 approved | | 1 approved | 1 dismissed | 14 approved 1 dismissed 2 withdrawn |

Attachment No. 2

Variance Application – John Burke – Block 31.06, Lot 3.01 – 20 Columbus Drive

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Variance Application –Carol Godfrey – Block 11, Lot 7 – 99 Seaview Avenue

Zone: A-1 Single Family

Memorialization of a Resolution to renovate the fire damaged, non-conforming two-family structure and the conversion of the structure to a single-family residence.

Variance Application – Gary & Cathy Stoddard – Block 51, Lot 1 – 30 Ocean Avenue

Zone: A- Single Family

Memorialization of a Resolution granting approval for a variance pertaining to fencing that has been installed and to be installed as well as the installation of a generator and air-conditioning compressor.

Variance Application –Brian Bernier – Block 51, Lot 14 – 8 Ocean Avenue

Zone: A- Single Family

Memorialization of a Resolution granting approval for a variance to construct a new rear deck and a new detached garage.

Variance Application –Michael & Kim Moore – Block 45.03, Lot29 – 27 Valentine Street

Zone: A- 1 Single Family

Memorialization of a Resolution granting approval for a variance to elevate and expand the existing single-family residence.

Variance Application – Bruce Patsner – Block 31, Lot 7.03 – 17 Spaulding Place

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the construction of a masonry patio and related stairs to the rear of the existing single-family dwelling.

Variance Application – Ajay Goyal– Block 17, Lot 5.01 – 82 Ocean Avenue

Zone: A-Single Family

Memorialization of a Resolution granting approval for variance to elevate the single-family dwelling and the installation of an in-ground pool.

Variance Application – Andrew & Amanda Ilvento– Block 45, Lot 35 – 65 Riverdale Ave

Zone: B- Business Retail

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling in a B-Business Retail Zone.

Attachment No. 2 (cont.)

Variance Application – Joan Walsh – Block 45.03, Lot 20.01 – 6 Anderson Street

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the addition of a front porch and stairs to an elevated single-family dwelling.

Variance Application – Micki Lomonaco - Block 2, Lot 24 – 12 Riverview Road

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the demolition of the existing dwelling and the construction of a new single-family dwelling.

Variance Application – John Rotundo & Elizabeth Segali – Block 61, Lot 30 – 16 Cook St

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance pertaining to the location of the air conditioning condenser units at the single-family residence.

Appeal Application – Vaseleke Sourvanos – Block 28, Lot 44 – 3 Circle Drive

Zone: A-1 Single Family

Memorialization of a Resolution granting the appeal and reversing the determination of the Zoning Officer.

Variance Application – Vincent DiLascia & Anne Generas – Block 45.02, Lot 15.01 – 10 Johnson Street

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to permit the installation of a back-up generator at the single-family dwelling.

Dismissal of an Application – Morgan Realty & Development, LLC - Block 25, Lot's 5, 9.20, 9.21, 9.22 & 10.01 – Channel Club Drive

Memorialization of a Resolution dismissing the application without prejudice.

Variance Application – Gregory Herschenfeld – Block 28, Lot 88.01– 54 Navesink Drive

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for a variance to allow air-conditioning compressors to encroach into the side yard setback area.

Variance Application – Donald Lynch & Elizabeth Ard – Block 58, Lot 9.01 – 4 Sydney Pl
Application withdrawn

Variance Application – Joel Weiner – Block 48.01, Lot 9.13 – 39 Ocean Avenue
Application withdrawn

**BOROUGH OF MONMOUTH BEACH
PLANNING BOARD**

2016 Annual Report

2016 Summary of Activities

1. This Annual Report covers the year January 1, 2016 to December 31, 2016.
2. During this time span, the Borough of Monmouth Beach Planning Board held twelve (12) regular meetings.
3. The Planning Board heard a total of TWENTY (20) applications and FOUR (4) Administrative Reviews. Of that, (21) were approved (1) was withdrawn and (2) were denied.
4. Attachment No. 1 is an APPROVAL/DISMISSAL/DENIAL CHART which depicts the Board's activity of 2016. The chart highlights the variances and subdivisions submitted to the Board by zone.
5. Attachment No. 2 is a listing of each application heard in 2016.

Attachment No. 1

APPROVAL/WITHDRAWN/DENIED CHART

| | A- SINGLE FAMILY RESIDENT | A-1 SINGLE FAMILY RESIDENT | A-2 HIGH RISE | A-APARTMENT/ TOWNHOUSE/ RESIDENTIAL | B RETAIL ZONE | B-1 BUSINESS MARINA | TOTAL |
|---|--|---|------------------------------|--|------------------------------|------------------------------------|--|
| DEMOLITION and/ or ADDITIONS/ CONSTRUCTION | 2 approved | 1 approved 1 denied | | | | | 2 approved 1 denied |
| VARIANCE APPLICATIONS WITHDRAWN | | | | | | | |
| VARIANCE ON EXISTING CONSTRUCTION | 2 approved | 7 approved | | | 1 approved | | 10 approved |
| MINOR SUBDIVISION | 2 approved 1 withdrawn | 1 denied | | | | | 2 approved 1 withdrawn |
| ADMINISTRATIVE APPROVAL | 1 approved | 1 approved | | 1 approved | 1 approved | | |
| TOTALS | 7 approved 1 withdrawn | 9 approved 2 denied | | 1 approved | 2 approved | | 19 approved 1 withdrawn 2 denied |

Attachment No. 2

Variance Application – William & Helen George – Block 44.07, Lot 223.01 – 2 Drew Ct

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for variance relief pertaining to excess lot coverage resulting from the installation of a paver patio.

Minor Subdivision Application – Peter Mauro – Block 43, Lot 25 – 10 Tocci Avenue

Zone: A- Single Family

Application withdrawn

Variance Application –Dorothy Mahoney – Block 45.04, Lot 10 – 18 Willow Avenue

Zone: A- Single Family

Memorialization of a Resolution granting approval for variance relief to allow the elevation, renovation and expansion of the existing single family dwelling.

Variance Application – PJBBuilders, LLC – Block 61, Lot 34 – 8 Cook Street

Zone: A-1 Single Family

Memorialization of a Resolution of Denial for variance relief to demolish the existing dwelling and construction of a new two-story single family dwelling.

Variance Application –Joel & Diane Bloom – Block 28, Lot 47 – 5 Circle Drive

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for variance relief pertaining to the location of platforms for mechanical equipment.

Minor Subdivision Application –James & Caroline Chapman – Block 57, Lot 3 – 5 Jessica Place

Zone: A- 1 Single Family

Memorialization of a Resolution of Denial to the proposed two-lot subdivision and related variance relief.

Variance Application – Gary & Rachel Oliva – Block 33, Lot 14.01 – 35 Navesink Dr

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for variance relief to permit the construction of a rear deck and an elevated platform for air conditioning compressor and generator.

Variance Application – Richard & Joanne Seelaus– Block 18.01, Lot 6 – 2 Sailors Way

Zone: A-Single Family

Memorialization of a Resolution granting approval for variance relief to permit the expansion of the existing single family dwelling.

Attachment No. 2 (cont.)

Variance Application – Paul & Eileen Flaherty– Block 44.02, Lot 12 – 15 Griffin St

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for variance relief to permit the elevation and expansion of the existing single family dwelling.

Variance Application – PJB Builders, LLC – Block 61, Lot 34 – 8 Cook Street

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for variance relief to permit the demolition of the existing dwelling and construction of a new two story single family dwelling.

Administrative Approval – Ajay Goyal - Block 17, Lot 5.01 – 82 Ocean Avenue

Zone: A Single Family

Memorialization of a Resolution granting Administrative approval for an extension of time pertaining to previously granted relief, for one year.

**Administrative Approval - Andrew Ilvento for Dowden – Block 45, Lot 35 –
65 Riverdale Ave**

Zone: B- Business Retail

Memorialization of a Resolution granting Administrative approval to a prior approval with regards to minor changes in the original plans.

**Administrative Approval – Sands Point South Condo Assoc. - Block 54, Lot 2.01
51 Valentine Street**

Zone: A-3 Apartment/Townhouse/Residential

Memorialization of a Resolution granting Administrative approval to allow the replacement of the storm damaged sign at the site.

Variance Application – Thomas & Kathryn Ziola – Block 28, Lot 39.01 – 1 Circle Dr

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for variance relief to permit the installation of a back-up generator at the single-family dwelling.

Administrative Approval – Mark Kassner - Block 59, Lot 1 – 42 Valentine Street

Zone: A-1 Single Family

Memorialization of a Resolution granting Administrative approval to a prior approval with regards to minor changes in the original plans.

Variance Application – JCP&L – Block 18, Lot 8– 64 Seaview Avenue

Zone: A- Single Family

Memorialization of a Resolution granting approval for variance relief to permit installation of flood mitigation improvements, including a concrete wall, sheet pile wall and flood gates at the existing electric substation.

Attachment No. 2 (cont.)

Minor Subdivision Application – Steven Denholtz – Block 28, Lot 2.01 –

55 Monmouth Parkway

Zone: A- Single Family

Memorialization of a Resolution granting approval for a conforming 2-lot minor subdivision.

Variance Application – Church of the Precious Blood – Block 44.02, Lot 2.01 –

72 Riverdale Avenue

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for variance relief to permit the paving of the gravel parking area serving the existing Church and Parish Center.

Minor Subdivision – James Fuller & Bernadette Bonner – Block 46, Lot's 9, 10.08, 11

13 River Avenue & 22 Seaview Avenue

Zone: A- Single Family

Memorialization of a Resolution granting approval for a minor subdivision merging a part of Lot 9 into Lot 10.08 and the balance into Lot 11, eliminating Lot 9.

Variance Application – Thomas & Anne Barham – Block 25, Lot 17 – I River Lane

Zone: A- Single Family

Memorialization of a Resolution granting approval for variance relief to allow the demolition of the existing dwelling and the construction of a new single family dwelling.

Variance Application – Douglas & Kimberly Loveland – Block 30, Lot 21.01 –

57 Navesink Drive

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for variance relief to permit the installation of a deck at the rear of the existing single family dwelling.

Variance Application – Wells Fargo – Block 27, Lot 21.01 – 33 Beach Road

Zone: B-Business Retail

Memorialization of a Resolution granting approval for variance relief and amended site plan approval pertaining to proposed site lighting and certain signage at the subject property.

Variance Application – Peter & Susan Ciambrone – Block 43, Lot 5.22 – 34 Wesley St

Zone: A- Single Family

Memorialization of a Resolution granting approval for variance relief to allow the removal of a pre-existing non-conforming deck and patio, and construction of a new two level deck and stairs.

Attachment No. 2 (cont.)

Variance Application – Nicholas Racioppi – Block 44, Lot 84.01 – 6 Monmouth Place

Zone: A-1 Single Family

Memorialization of a Resolution granting approval for variance relief for improvements that were made and exceeded those previously approved.