



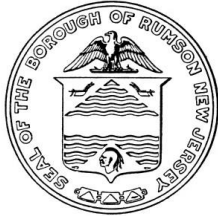
2015 Master Plan Reexamination Report & Amendments

Borough of Rumson
Monmouth County, New Jersey

2015 Master Plan Reexamination Report & Amendments

Adopted April 13, 2015

Prepared for:



The Borough of Rumson
Monmouth County, New Jersey

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*The original of this document was signed
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I. Introduction

The New Jersey Municipal Land Use Law (MLUL) requires that each municipality in New Jersey undertake a periodic review and reexamination of its local Master Plan. The purpose of the Reexamination Report is to review and evaluate the master plan and municipal development regulations on a regular basis in order to determine the need for updates and revisions. In addition, the preparation of a statutorily compliant Reexamination Report provides a presumption of validity of the municipal zoning ordinance under the law. This report constitutes the Master Plan Reexamination Report for the Borough of Rumson as required by the Municipal Land Use Law at N.J.S.A. (40:55D-89).

The Borough of Rumson adopted its last comprehensive Master Plan in 1988. The Borough has subsequently adopted Reexamination Reports in 1994, 1997, 2002, and 2012. The current document (hereinafter referred to as the 2015 Master Plan Reexamination Report) serves as a reexamination of the 1988 Master Plan, as supplemented by the 2012 Master Plan Reexamination Report.

While the 2015 Master Plan Reexamination Report is broad in scope, it has been prepared in light of the experience of Hurricane Sandy. It, therefore, places special emphasis on facilitating recovery from Hurricane Sandy's impacts, as well as promoting resiliency to future storm impacts and other potential natural hazards. To achieve this, the 2015 Master Plan Reexamination Report recommends a number of updates and revisions to the 1988 Master Plan. These changes have been compiled into a master plan amendment, which is appended to this document.



II. Requirements of the Periodic Reexamination Report

The Municipal Land Use Law requires that the Borough of Rumson provide for the reexamination of the municipal master plan and development regulations at least once every ten years. The purpose of the reexamination is to review the progress of the Borough in achieving its planning objectives, and to consider the need for changes in order to ensure that the municipal plan is current and meets the needs of the Borough. The Planning Board of the Borough of Rumson is responsible for completing the reexamination, and preparing and adopting by resolution a report on the findings of the reexamination.

The Municipal Land Use Law requires that the reexamination report describe the following:

- The major problems and objectives relating to land development in the municipality at the time of the adoption of the last reexamination report.
- The extent to which such problems and objectives have been reduced or have increased subsequent to such date.
- The extent to which there have been significant changes in assumptions, policies, and objectives forming the basis for the master plan or development regulations as last revised, with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition, and recycling of designated recyclable materials, and changes in state, county and municipal policies and objectives.
- The specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulation should be prepared.
- The recommendations of the planning board concerning the incorporation of redevelopment plans adopted pursuant to the "Local Redevelopment and Housing Law," P.L.1992, c. 79 (C.40A:12A-1 et seq.) into the land use plan element of the municipal master plan, and recommended changes, if any, in the local development regulations necessary to effectuate the redevelopment plans of the municipality.

The 2015 Master Plan Reexamination Report addresses each of these statutory requirements.



III. The Major Problems and Objectives Relating to Land Development in the Borough of Rumson at the Time of the Adoption of the Last Reexamination Report

Master Plan Objectives

The 1988 Master Plan included the following general objectives:

1. Maintain Rumson's character as a residential community and the quality of life that it offers.
2. Encourage the most appropriate use of land consistent with neighborhood character and its suitability for development.
3. Establish appropriate population densities and limit the intensity of development to both preserve the natural environment and to ensure neighborhood, community, and regional well-being.
4. Maintain a satisfactory level of public facilities and services.
5. Secure the public's safety from fire, flood, panic, and other natural and man-made disasters.
6. Maintain fiscal stability.
7. Ensure that Rumson's development does not conflict with the development and general welfare of neighboring municipalities, the county, and the state as a whole.
8. Coordinate development with land use policies to encourage the appropriate and efficient expenditure of public funds.
9. Provide sufficient space in appropriate locations for residential, recreational, commercial, and open space use.
10. Locate and design transportation routes to promote the free flow of traffic while discouraging congestion or blight.
11. Promote a desirable visual environment.
12. Conserve historic sites and districts.
13. Prevent urban sprawl and degradation of the environment through improper land use.
14. Expand housing opportunities within the Borough compatible with neighborhood character and the needs of present and future residents.
15. Promote the recovery of recyclable materials from municipal solid waste and encourage the conservation of energy.
16. Protect the natural resources and qualities of the Borough including freshwater and saltwater wetlands, floodplains, stream corridors, open space, steep slopes, and areas with scenic, cultural, and recreational values.



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The last Reexamination Report (adopted in 2012) indicated that the November 2002, June 2002, and 1997 Reexamination Reports supported the goals and objectives of the 1988 Master Plan. The 2012 Reexamination Report did not modify the prior endorsements.

Problems Articulated in the 1988 Master Plan

1. The disposal of solid waste and implementation of recycling to meet state recycling goals.
2. Addressing the Borough need for low and moderate income housing.
3. Controlling the intensity of development within the existing residential neighborhoods in order to ensure that infill development, redevelopment, or expansions are compatible with neighborhood character.
4. Conserving scenic waterfront views along the Navesink River and the Shrewsbury River.
5. Managing further development within the business and commercial districts to be compatible in scale and intensity with surrounding residential areas and with the character of the business area.
6. Discouraging piecemeal conversions of residential uses in commercial areas into substandard commercial properties.
7. Improving pedestrian and vehicular circulation in the business districts.
8. Protecting Borough landmarks.
9. Protecting sensitive natural features including wetlands and flood hazard areas.

Assumptions that Underpin Borough Planning

The 1994 and 2002 Reexamination Reports both outline three assumptions that underpin planning issues in Rumson. They are listed below:

1. The continued economic viability of Rumson as a single family residential community with supporting public, commercial, and institutional facilities and services.
2. No natural or man-made disasters will require redevelopment of the Borough.
3. Given a stable population level, there will be minimal need to expand municipal facilities and services.

Issues in 2012

Section 3 of the 2012 Master Plan Reexamination Report summarized the status of the primary planning concerns at that time as follows:

“The Planning Board continues to have a concern that changes in the R-1 and R-2 zone districts are required to address potential adverse impacts of infill



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development. In the Board's opinion, recent new construction, during the economic downturn of the past several years, has not been as oversized as that in the past, however, modifications to the municipal regulation[s] are necessary to address potential detrimental effects and are still appropriate. The Planning Board believes that the Borough officials should implement the Board's recommendations prior to an increase in development activity.

While new housing construction has dropped substantially on a county-wide basis, the pace of new residential construction in Rumson Borough has only slowed moderately."



IV. Extent to Which Such Problems and Objectives Have Been Reduced or Increased

Status of Existing Objectives, Problems, and Assumptions

This section reiterates the objectives, problems, and assumptions of the 1988 Master Plan, with the following exceptions and commentary concerning the extent that the objective, problem, or assumption has been reduced or increased. The commentary is in italic text:

- General Objective #5: Secure the public's safety from fire, flood, panic, and other natural and man-made disasters.

Revised as follows: Secure the public's safety from fire, flood, panic, and other natural and man-made disasters. Adapt efforts accordingly to reflect updated flood levels and data from FEMA and NOAA.

- Assumption #2 that underpins Borough planning: No natural or man-made disasters will require redevelopment of the Borough.

This assumption has been removed.

- Assumption #3 that underpins Borough planning: Given a stable population level, there will be minimal need to expand municipal facilities and services.

Revised as follows: Given a stable population level, there will be minimal need to expand municipal facilities and services. However, an expansion of recreational facilities will be required to address resident and Borough needs.

In addition, the primary planning concerns of the 2012 Master Plan Reexamination Report are also reiterated, with commentary concerning the extent that the planning concern has been reduced or increased. The commentary is in italic text.

- "The Planning Board continues to have a concern that changes in the R-1 and R-2 zone districts are required to address potential adverse impacts of infill development. In the Board's opinion, recent new construction, during the economic downturn of the past several years, has not been as oversized as that in the past, however, modifications to the municipal regulation[s] are necessary to address potential detrimental effects and are still appropriate. The Planning Board believes that the Borough officials should implement the Board's recommendations prior to an increase in development activity."



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This recommendation still has not been implemented in the development ordinance, and has been deleted.

- “While new housing construction has dropped substantially on a county-wide basis, the pace of new residential construction in Rumson Borough has only slowed moderately.”

Table #1 in the 2012 Reexamination Report depicted Housing Units Authorized by Building Permits For New Construction in the Borough of Rumson from 2004 to 2011. The updated data has been supplemented below. The Board finds that new construction permits in 2012 and 2013 have not dropped in Rumson.

Table 1: Housing Units Authorized by Building Permits for New Construction

Rumson Borough, 2004-2013

| <i>Year</i> | <i>1 & 2 Family</i> | <i>Mixed Use</i> | <i>Total</i> |
|----------------|-----------------------------|----------------------|--------------|
| 2004 | 38 | 2 | 40 |
| 2005 | 34 | 0 | 34 |
| 2006 | 41 | 0 | 41 |
| 2007 | 36 | 0 | 36 |
| 2008 | 27 | 0 | 27 |
| 2009 | 17 | 0 | 17 |
| 2010 | 23 | 0 | 23 |
| 2011 | 27 | 0 | 27 |
| 2012 | 30 | 0 | 30 |
| 2013 | 44 | 2 | 46 |
| <i>Total</i> | 317 | 4 | 321 |
| <i>Average</i> | 31.7 | 0.4 | 32.1 |

Source: NJ Department of Community Affairs, Construction Reporter



Recommendations of the 2012 Reexamination Report

The 2012 Reexamination Report recommended a number of changes to the Zoning Map and the Land Development Ordinance Provisions. An updated Summary of Recommendations of the 2012 Reexamination Report with the 2015 Planning Board's recommendations to bring those recommendations up to date is provided below:

1. Increase the minimum lot requirements for portions of the R-1 and R-2 zones.
This is no longer relevant.
2. Specific properties were recommended to be rezoned from R-5 to General Business.
Completed. This was amended via Ordinance 14-007 D.
3. Building Height: New residential construction must comply with municipal flood hazard rules that require the lowest habitable floor to be above the base flood elevation.
This has been completed. The Borough adopted zoning amendments 13-002 G and 13-003 D in January 2013 to reflect FEMA's Advisory Base Flood Elevations and map dated December 2012.
4. Circulation Plan/Bicycle Circulation: The Borough should revise the Master Plan to update the circulation element to include a sub-plan element for bicycle circulation to specify locations for bicycle lanes on roadways within the Borough, as well as to address pedestrian improvements and needed sidewalks.
This is on-going, as it has not yet been completed.
5. Solar and Small Wind Energy Facilities in Residential Zones: The Borough Council should consider zoning requirements for solar and wind energy facilities in future amendments to the Zoning Ordinance to promote a desirable visual environment.
Completed. This has been amended via Ordinance 12-013 D.
6. Regulations of House Size: The Borough should monitor the building sizes of new or expanded homes and develop a database of pertinent information to better evaluate this issue. Annual reports to the Planning Board may be one mechanism to monitor this issue.
This is on-going.
7. Economic Development: Borough officials should monitor the demand of the use of satellite offices in the downtown business district, which lies in close proximity to the



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houses of CEOs. The Borough should subsequently determine if the General Business zone should be expanded or modified for additional office use.

No changes have been made yet to the General Business zone. This recommendation requires additional review and research.

8. Master Plan Documents: The Borough should compile the 1988 Master Plan and all subsequent master plan element amendments and reexamination reports into one reference document easily made available by Borough staff to the general public.

This is an on-going recommendation and part of the update.



V. Extent to Which There Have Been Significant Changes in the Assumptions, Policies, and Objectives

The Planning Board continues to find that, with the exceptions that have been outlined in the previous section of this reexamination report, the overall assumptions, policies, and objectives of the 1988 Master Plan are consistent with and reflect the current assumptions, policies, and objectives of the Planning Board in terms of future development to the Borough.

The following significant changes in the assumptions, policies, and objectives relating to land development in the Borough of Rumson have taken place since 2012:

Changes at the Local Level

As indicated in the following subsections, there have been considerable changes at the local level since the adoption of the 2012 Master Plan Reexamination Report.

Impacts of Hurricane Sandy

Hurricane Sandy struck the coast of New Jersey on October 29, 2012, and caused extensive damage to the Borough of Rumson from both storm surge and wind damage. 284 properties within the Borough's jurisdiction experienced substantial damage. All of the Borough's sewage pump stations went offline due to floodwater inundation and/or power system failure. Trees and power lines throughout the Borough fell, in many cases damaging buildings and homes. The Borough also faced power outages for 14 days.

Despite the extent of damages the Borough of Rumson sustained from Hurricane Sandy, existing land use patterns and prevailing land uses are not anticipated to substantially change. The long-term impacts of Hurricane Sandy have yet to be seen, but will be affected by a variety of



Figure 1: Displaced Boats from Hurricane Sandy
Source: Rumson-Fair Haven Patch

factors including insurance payouts, flood insurance regulations, as well as the ability of residents, businesses, and the Borough to rebuild.

With the impacts of Hurricane Sandy so great, the Borough of Rumson has significant concern and reason for promoting not only recovery from Sandy, but also building resiliency to future storm impacts and other potential natural hazards. This offers new opportunities for redevelopment, but care must be taken to ensure all new development keeps with the character of the community.



Figure 2: Wind Damage from Hurricane Sandy
Source: Rumson-Fair Haven Patch

Additionally, many residents

require assistance in rebuilding and returning to their homes. The impact of the storm also offers an opportunity to increase the resiliency of the Borough's infrastructure.

In addition, new FEMA Flood insurance maps are in the process of being adopted. These maps increase the flood zone and base flood elevations for some coastal areas of the Borough. Property owners will need to take preventative measures to ensure they are in compliance with the new regulations.

While the current 2015 Master Plan Reexamination Report is broad in scope, the experience of Hurricane Sandy and the need to build resiliency has influenced and informed its development.

Strategic Recovery Planning Report

As a response to Hurricane Sandy, the Borough of Rumson adopted a Strategic Recovery Planning Report in 2014. The purpose of the Strategic Recovery Planning Report is to outline a recommended set of actions to guide the Borough in promoting recovery from the impacts of Hurricane Sandy and resiliency to future storms.

The actions recommended by the Strategic Recovery Planning Report are as follows:

- Installing a town-wide SCADA system;
- Automating and upgrading the zoning and construction permit program;
- Updating the Borough's hazards mitigation plan;
- Revising and updating Rumson's Emergency Operations Procedure Manual;
- Developing a GIS database/inventory of Borough-owned infrastructure;
- Compiling low-elevation aerial mapping of identified special flood hazard areas;
- Entering FEMA's CRS program;
- Preparing a more comprehensive Borough Master Plan, and updating its goals and objectives to address post-Sandy strategies;
- Adding a floodplain management plan to the Master Plan;
- Installing an emergency standby generator at Oceanic Hook and Ladder fire house;
- Replacing under-sized drainage piping at Club Way, and at Holly Tree Lane and Navesink Avenue;
- Removing of silt along minor waterway parallel to Brookside Drive;
- Developing Bingham Hall as a comfort station during emergencies; and
- Installing waterfront bulkheading at Rumson Boat Launch facility.

Implementation of the recommendations that have been listed above will promote recovery from Hurricane Sandy and increased resiliency to future storms. Where relevant, individual actions are discussed elsewhere in this report.

Building Height and Base Flood Elevations

Also as a response to Hurricane Sandy, the Borough of Rumson adopted zoning amendments 13-002 G and 13-003 D in January 2013 to reflect FEMA's Advisory Base Flood Elevations and map dated December 2012. This required new residential construction and substantially damaged homes to comply with municipal flood hazard rules in which the lowest habitable floor must be above the base flood elevation.



Demographic Changes

The Borough of Rumson adopted its last Master Plan Reexamination Report in 2012, which already incorporated the latest US Census Bureau population estimates. The overall density and distribution of population and the land use pattern within the Borough has not changed substantially since the last reexamination in 2012. Nonetheless, the total population of the Borough as of the US Census in 2010 was 7,122 and decreased to 7,098 in 2012 (according to the 2012 American Community Survey estimates).

Zoning Board of Adjustment Annual Report

The Borough of Rumson Zoning Board of Adjustment releases an annual report that covers the Board's actions in each calendar year. The Board works with applicants to develop improved designs and reduce the intensity and quantity of variances, often reducing the number requested. A summary of the Board's actions for 2013 is included in this section.

In 2013, the Board of Adjustment held 12 regular Board meetings and heard a total of 46 applications, of which 26 were for Hurricane Sandy damage. Of the 46 applications:

- 21 were for the construction of new single-family residences;
- 16 were for expansion and renovation to existing single-family residences;
- One was for driveway relocation;
- Four were for in-ground pools;
- One was for the renovation of an existing secondary residential cottage;
- One was for relocation of an existing carriage house; and
- Two were site plans (a school security entrance and a multi-family residence).

In 2013, 43 applications were approved, three were withdrawn, and none were denied. In addition, 11 of the applications that would have been denied were allowed to continue to a subsequent meeting to incorporate Board recommended modifications. The following table shows a breakdown of the type of variances granted in 2013.



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Table 2: Zoning Board of Adjustment Variance Approvals, 2013

| <i>Variance</i> | <i>Number of Approvals</i> |
|--|----------------------------|
| <i>Lot Area</i> | 4 |
| <i>Lot Width & Frontage</i> | 15 |
| <i>Front Setback Building</i> | 12 |
| <i>Building Coverage</i> | 9 |
| <i>Rear Setback</i> | 7 |
| <i>Accessory Setback</i> | 4 |
| <i>Accessory Structure without Principal</i> | 2 |
| <i>Lot Shape</i> | 17 |
| <i>Side Setback</i> | 12 |
| <i>Front Setback Porch</i> | 2 |
| <i>Building Height</i> | 0 |
| <i>Lot Coverage</i> | 0 |
| <i>Floor Area</i> | 4 |
| <i>Accessory Front Yard</i> | 5 |
| <i>Accessory Building Ground Floor</i> | 0 |

Variations were also granted for one garage door visible from street or river, four for driveway width within front yard setback, one for renovation of an existing secondary residential cottage, one reconstruction of a multi-family residence and number of garage spaces to the Ordinance maximum of five spaces.

Changes at the County/Regional Level

Since the adoption of the 2012 Master Plan Reexamination Report, there have been several changes at the county and regional level, including the adoption of the Monmouth County Water Quality Management Plan. In addition, the county is undergoing the process of updating both its Master Plan and the Monmouth County Multi-Jurisdictional Natural Hazards Mitigation Plan.

Monmouth County Water Quality Management Plan

In accordance with the Statewide Water Quality Management Planning rules (N.J.A.C. 7:15-3.4), a public notice for a Proposed Amendment to the Monmouth County Water



Quality Management (WQM) Plan was published on January 7, 2013 in the New Jersey Register and the Asbury Park Press. This amendment proposal would provide for a Future Wastewater Service Area (FWSA) for Monmouth County.

Almost all of the Borough of Rumson is located in the proposed sewer service area, so the adoption of the WQM Plan will have no impact on the development of the Borough. Borough officials participated alongside the Monmouth County Planning Board with regard to the sewer service area proposed for Rumson, and the Monmouth County accepted input provided by the Borough.

Monmouth County Multi-Jurisdictional Natural Hazard Mitigation Plan

Monmouth County adopted its Multi-Jurisdictional Natural Hazard Mitigation Plan (HMP) in 2009 to meet the requirements of the Disaster Mitigation Act of 2000. Monmouth County employed a multi-jurisdictional approach to develop the plan, and every municipality in the county was invited to participate as an equal partner with the county. The Plan identifies natural hazards that could affect the county's jurisdictions, evaluates the risks associated with these hazards, identifies the mitigation actions to lessen the impacts of a disaster on Monmouth County communities, and prioritizes them based on the municipal master plans and other planning documents. The county is in the process of updating the HMP to incorporate elements of mitigation planning post Hurricane Sandy. A draft plan was released for review in October 2014.

As part of its participation in the HMP outreach process, the Borough of Rumson has updated and supplemented its list of recovery actions to include the following:

1. Elevating 32 homes to reflect new FEMA FIRM maps.
2. Installing a new elevated bulkhead and a new tide valve at the western terminus of Washington Avenue; replacing an existing tide valve at the western terminus of Grant Avenue and Waterman Avenue; and constructing an earthen berm and associated grading above the existing bulkhead at the western and eastern terminus of Grant Avenue, and western terminus of Waterman Avenue.
3. Installing emergency backup generators and/or flood proofing measures at pump stations at the following locations: Riverside Drive, Club Way, Thorton Way, Navesink Avenue, Buena Vista Avenue, and Shrewsbury Drive. Also recommended is reinforced steel, rubber gasket lined storm doors at the pump stations located at Marina and at Grant Avenue.
4. Installing reinforced steel and rubber gasket-lined storm doors at the Borough's Department of Public Works garage.



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5. Installing 150 linear feet of new elevated bulkhead, rehabilitation and replacement of existing drainage pipes, and installing a new tide valve at the intersection of Shrewsbury Drive and Avenue of Two Rivers.
6. Removing two existing underground fuel storage tanks (one diesel and one regular unleaded) and installing two new above-ground tanks at the Borough's Department of Public Works yard.
7. Upgrading the shelter facility located at Rumson–Fair Haven Regional High School, including emergency power facility.
8. Implementing stream and pond clearing to speed draining of flood prone areas and following up with regular maintenance.
9. Tree maintenance of shade trees along streets in the community; increasing the effectiveness of Public Works to clear trees in the event of a storm.
10. Continuing to maintain current warning systems that are already operational including the Borough website, AM radio, the Reverse 911 calling system, and the emergency siren alerting system.
11. Enacting new FEMA flood maps as part of planning and zoning regulations.
12. Installing a quick connection for a portable generator at Borough Hall.
13. Developing Bingham Hall as a comfort station during emergencies.
14. Installing a Borough-wide SCADA system.
15. Installing an emergency standby generator at Oceanic Hook & Ladder Fire House.
16. Replacing under-sized drainage piping at the south end of Club Way, and at the intersection of Holly Tree lane and Navesink Avenue.
17. Installing 225 linear feet of new bulkheading at the Rumson Boat Launch facility.
18. Automating and upgrading the zoning and construction permit program.
19. Revising and updating the Borough's Emergency Operations Procedure Manual.
20. Entering FEMA's Community Rating System (CRS) program.
21. Developing a GIS database/inventory of Borough-owned infrastructure.

Changes at the State Level

As indicated in the following subsections, there have been considerable changes at the state level since the adoption of the 2012 Master Plan Reexamination Report.

Green Buildings and Environmental Sustainability Element

Many New Jersey municipalities have made efforts to reduce their carbon footprint, decrease greenhouse gas emissions, encourage the use of renewable energy sources, conserve energy, and minimize the use of natural resources. Federal and state programs



have been established to assist municipalities to address these goals. In the private sector, the US Green Building Council, a private organization, has established the Leadership for Energy and Environmental Design (LEED) certification programs to encourage and standardize the certification of buildings which are energy efficient and incorporate sustainable environmental design concepts.

Recognizing the importance of green building and sustainability, the Legislature amended the Municipal Land Use Law (MLUL) in 2008 to add the “Green Building and Environmental Sustainability Plan Element” to the list of optional elements of municipal master plans. The scope of the new element is as follows: “A green buildings and environmental sustainability plan element, which shall provide for, encourage and promote the efficient use of natural resources and the installation and usage of renewable energy systems, consider the impact of buildings on the local, regional, and global environment; allow ecosystems to function naturally; conserve and reuse water; treat storm water on site; and optimize climatic conditions through site orientation and design.”

State Strategic Plan

The NJ State Planning Commission is now staffed by the Office of Planning Advocacy (OPA) which is within the Department of State. The OPA has released a draft State Strategic Plan to supersede the current State Development and Redevelopment Plan. Public Hearings were held in February, March, and September of 2012. The draft State Strategic Plan is based upon a criteria-based system rather than a geographic planning area. The draft State Strategic Plan has not been adopted by the State Planning Commission at this time and was put on hold following Hurricane Sandy.

The Borough of Rumson should continue to monitor the progress of the new plan and its implication for future planning in the Borough.

Redevelopment Case Law

There have been a number of recent court decisions concerning the use of criteria for determining an area “in need of redevelopment” pursuant to the Local Redevelopment and Housing Law (LRHL). The most significant of these decisions is the NJ Supreme Court’s decision in Gallenthin vs. Paulsboro, which reevaluated and set guidelines for the use of the statutory criteria for determining an area in need of redevelopment. The New Jersey Legislature also held hearings in 2010 on legislation to update the NJ Redevelopment and Housing Law. In 2013 Assembly Bill 3615 became law and is intended to protect property owners by limiting the redevelopment powers of



municipalities under the LRHL. This amendment raises the standard for a blight finding to one in which the property must be unproductive.

New Jersey Council on Affordable Housing (COAH)

COAH originally adopted affordable housing rules for the third round period in 2004. However, an Appellate Division decision in 2007 stayed COAH from reviewing any plans as part of a petition for substantive certification, and resulted in a remand of the 2004 rules back to COAH to revise them consistent with the Appellate Division decision. COAH subsequently adopted revised third round rules in 2008.

In 2010, the Appellate Division invalidated COAH's 2008 third round rules, and the "growth share" methodology upon which they were based. In 2013, the New Jersey Supreme Court upheld and modified the Appellate Division's 2010 decision that invalidated COAH's third round rules. As a result, COAH was then charged with the task of adopting new affordable housing rules.

COAH has since failed twice to adopt new affordable housing rules for the third round period. Due to COAH's failure to adopt such rules, the New Jersey Supreme Court concluded on March 10, 2015 that there no longer exists a legitimate basis to block access to the courts, which was the original intent of the COAH process. The New Jersey Supreme Court's March 10 decision notes that: "parties concerned about municipal compliance with constitutional affordable housing obligations are [now] entitled to such access, and municipalities that believe they are constitutionally compliant[,] or that are ready and willing to demonstrate ... compliance [with such obligations,] should be able to secure declarations that their housing plans and implementing ordinances are presumptively valid in the event they ... must defend [themselves] against exclusionary zoning litigation."

In its March 10 decision, the New Jersey Supreme Court established a transitional process to not immediately allow exclusionary zoning actions to proceed in court. The decision notes that: "[d]uring the first thirty days following [June 8, 2015] ..., the only actions that will be entertained by the courts will be declaratory judgment actions filed by any [municipality] ... that either (1) had achieved substantive certification from COAH under prior iterations of Third Round Rules before they were invalidated, or (2) had "participating" status before COAH. Assuming [that] any such [municipality] ... waits and does not file a declaratory judgment action during [the] ... thirty-day period, an action may thereafter be brought by a party against [the municipality] ..., provided the action's sole focus is on whether the [municipality's] ... housing plan meets its Mount Laurel obligations (a constitutional compliance challenge). The court's evaluation of a



[municipality's] ... plan that had received substantive certification, or that will be submitted to the court as proof of constitutional compliance, may result in the [municipality's] ... receipt of the judicial equivalent of substantive certification and accompanying protection as provided under the [Fair Housing Act]”

The Borough of Rumson has filed a plan with COAH, but the plan has not been certified. Therefore, the Borough fulfills Criterion 2 as outlined in the transitional process that has been described above. The Borough will, as a result, be able to file a declaratory judgment action immediately upon the March 10 decision becoming effective on June 8, 2015.

Changes at the Federal Level

Executive Order Establishing a Federal Flood Risk Management Standard

In 2013, the President’s Hurricane Sandy Rebuilding Task Force adopted a higher flood standard for the Sandy-affected region to ensure that federally funded buildings, roads and other projects were rebuilt stronger to withstand future storms. The Sandy Task Force also recommended that the Federal Government create a national flood risk standard for federally funded projects beyond the Sandy-affected region. The new standard gives agencies the flexibility to select one of three approaches for establishing the flood elevation and hazard area they use in siting, design, and construction. They can:

- Use data and methods informed by best-available, actionable climate science;
- Build two-feet above the 100-year (1%-annual-chance) flood elevation for standard projects, and three feet above for critical buildings like hospitals and evacuation centers; or
- Build to the 500-year (0.2%-annual-chance) flood elevation.

On January 30, 2015, the President released proposed guidelines for these standards that are available for 60 days of public comment. Once public input has been considered, including from a series of public listening sessions that will be held across the country, and the guidelines are finalized, agencies will implement the Standard through their own rulemaking or other procedures, which also will incorporate input from the public and stakeholders.

The new flood standard will apply when Federal funds are used to build, or significantly retrofit or repair, structures and facilities in and around floodplains to ensure that those structures are resilient, safer, and long-lasting. It will not affect the standards or rates of the National Flood Insurance Program. Each agency will carefully consider how to appropriately apply this standard, and consider robust public input before deciding how to implement it.



VI. Specific Changes Recommended for the Master Plan and Development Regulations

Given the extent to which there have been significant changes in assumptions, policies, and objectives at the local, county, and state levels, the 2015 Master Plan Reexamination Report recommends a number of changes to the Borough's municipal master plan and development regulations. These are discussed in the following subsections.

Changes to the Master Plan

- **Master Plan Elements**

The Borough should compile the 1988 Master Plan and all subsequent master plan element amendments and reexamination reports into one reference document to facilitate easy access by Borough staff and the general public.

- **Green Buildings and Environmental Sustainability Element**

The Borough should prepare a green buildings and environmental sustainability element, which, concurrent with Municipal Land Use Law, can provide for, encourage, and promote the efficient use of natural resources and the installation and usage of renewable energy systems, consider the impact of buildings on the local, regional, and global environment; allow ecosystems to function naturally; conserve and reuse water; treat storm water on site; and optimize climatic conditions through site orientation and design.

- **Circulation Plan/Bicycle Circulation**

The Borough should revise the Master Plan to update the circulation element to include a sub-plan element for bicycle circulation to specify locations for bicycle lanes on roadways within the Borough, as well as to improve pedestrian access.

- **Capital Improvement Plan**

The Borough should prepare a Capital Improvement Plan that identifies needed capital improvements to improve local resiliency.

- **Floodplain Management Plan Element**

The Borough should prepare a Floodplain Management Plan (FMP). This will identify and assess flood hazards within the Borough, establish the goals and objectives for floodplain management in Rumson, and present a series of actions designed to minimize flooding and mitigate the impacts from flooding in the future. The FMP will also evaluate the need and potential options for wetland restoration and maintenance and/or other engineering control measures to mitigate potential storm surge in those areas of the Borough that may be vulnerable. The FMP will include recommendations



to the Borough's current Floodplain Development Protection Ordinance. This project is being prepared concurrent to this Master Plan Reexamination Report, and funding is provided through the Post Sandy Planning Assistant Grant Program (PSPAGP).

- **Stormwater Management Plan**

The Borough Stormwater Management Plan and Stormwater Management Ordinance were amended in 2006 to be consistent with the New Jersey Stormwater Best Management Practices Manual prepared by the New Jersey Department of Environmental Protection. The ordinance sets specific standards for flood control, groundwater recharge and pollutant reduction. The Borough should continue to enforce these requirements for all applicable development, including the elevation of single family dwellings, to reduce the impacts of stormwater runoff to neighboring properties and Borough infrastructure. The Borough should also consider amending the Stormwater Management Plan to address green infrastructure techniques to promote resiliency in the Borough, while keeping in mind hazard mitigation, community resiliency, and sea level rise.

- **Open Space Inventory**

The opportunity for additional open space preservation in Rumson is small, due to the fact that it is largely built-out and the high value of land within the community. However, there are numerous existing parks and areas of preserved open space scattered throughout the community. Many of the islands located in the Shrewsbury and Navesink Rivers are also owned by the State or Borough for conservation. While the opportunity for future open space preservation within the Borough is low, if the opportunity arises it should be further explored to aid in storm resiliency and to mitigate possible storm impacts.

- **Housing Element and Fair Share Plan**

The Borough of Rumson already filed a plan with the Council on Affordable Housing (COAH), but the plan has not been certified, therefore the Borough of Rumson is classified as having a "participating" status before COAH. A decision by the New Jersey Supreme Court on March 10, 2015 established a transitional process in which the Borough will be able to file a declaratory judgment action immediately upon the March 10 decision becoming effective on June 8, 2015. The Borough should undertake a review of the implications of the Supreme Court decision and make a determination of the appropriate course of action to address compliance with the affordable housing obligation.

Regardless of the transitional status of COAH rules, this Master Plan Reexamination Report recommends amending the Housing Plan Element to address the following:



- The Borough encourages homeowners of single-family structures to elevate their homes to make them more resilient to future Sandy-type storms.
- It is the Borough's policy that affordable housing should not be located within the flood hazard areas.

Development Regulations

- **Flood Zones**

Some areas in Rumson Borough along the Navesink and Shrewsbury Rivers lie within a flood zone. Zoning regulations should be evaluated to make sure that losses due to flooding are minimized through appropriate area and use requirements and proper flood hazard regulations.

- **Building Elevation**

The Borough's Flood Damage Prevention Ordinance currently requires that new, substantially damaged or substantially improved buildings located in a special flood hazard area be elevated to or above the Advisory Base Flood Elevation (ABFE). The Ordinance should be revised to indicate that buildings shall be elevated at least one foot above the 2009 Effective FIRM, the 2012 ABFE, or the 2014 Preliminary FIRM elevation, whichever is greatest. The Borough should also require and maintain elevation certificates for all elevated buildings in a special flood hazard area.



Figure 3: Rumson Home Elevation on Warren Street
Source: RedBankGreen.com

- **Maximum Permissible Lot and Building Coverages**

The Borough should continue to monitor the maximum permissible lot and building coverages for residential uses as they relate to parking issues, schools, and school children.

- **Regulations of House Size**

The Borough should continue to monitor the building sizes of new or expanded homes and develop a database of pertinent information to better evaluate this issue. Annual reports to the Planning Board may be one mechanism to monitor this issue. Another mechanism may be the automation and updating of the zoning and construction permit process that is currently underway as part of the PSPAGP.

- **Economic Development**

Borough officials should monitor the demand for the use of satellite offices for Borough residents in the downtown business district. The Borough should subsequently determine if the General Business zone should be expanded or modified for additional office use.

- **Permitted and Conditional Uses**

The Borough should monitor and maintain the list of permitted and conditional uses in the non-residential zones.

- **Erosion Setbacks**

The Borough of Rumson should consider adopting an erosion setback ordinance based on erosion rates along the Navesink and Shrewsbury Rivers. An erosion setback ordinance would reduce the need for erosion control structures along the shoreline, minimize property damage due to erosion, and maintain the natural shoreline dynamics. In order to maintain effective setback requirements, reliable scientific data must be used. Additionally, erosion rates change over time and would require a periodic reevaluation of the setback lines along the riverfronts.

- **Stream Dumping**

The Borough Ordinance currently prohibits the disposal of waste and refuse upon any parking place, street, road, avenue, park, or other public place upon any lot or other premises, except in receptacles or containers provided for such purposes. The ordinance should be revised to clearly prohibit the dumping of any waste or refuse in any stream or waterway.

- **Side and Rear Setbacks**

It is recommended that the Schedule of Zoning District Regulations be revised to allow unroofed porches, landings, stoops, and stairs to extend up to five feet beyond the side and rear setback lines in a residential zone.

- **Grading and Stormwater Runoff**

In order to minimize the effect of grading and stormwater runoff associated with new development, changes are recommended to Section 22-7.27, Soil Removal and Fill,



and Section 22-7.25, Fences and Walls of the Development Regulations. Additional oversight and approvals will be required to ensure that there will be no negative impacts to neighboring properties as a result of new construction. Additional regulations are proposed for Section 22-7.25 to limit the impacts of large retaining walls that are sometimes constructed when a house is elevated.

Other Recommendations/Capital Recommendations

- **Zoning and Construction Permit Process Automation and Updates**

The Borough should automate and update its system for processing zoning and construction permits. In 2013 Rumson processed double the amount of permits seen in the years preceding Hurricane Sandy. An upgraded permit program in which inspectors receive and manage permits on laptops and electronic tablets using state of the art technology will significantly increase the Borough's efficiency in this task and in recovering from future storm events. This project is being prepared concurrent to this Master Plan Reexamination Report, and funding is provided through the PSPAGP.

- **Update the Borough's Hazard Mitigation Plan (HMP)**

The Hazard Mitigation Plan should identify and assess the various flooding hazards within the Borough as well as the associated vulnerabilities to those hazards. The HMP should also identify alternative mitigation actions that can be implemented to reduce the Borough's risk resulting from hazard exposure. This project is being prepared concurrent to this Master Plan Reexamination Report, and funding is provided through the PSPAGP.

- **Revise and update the Borough's Emergency Operations Procedure Manual**

The Borough should prepare an update to its Emergency Operations Procedure Manual, which includes creating a flood hazard-specific annex to accompany the existing Plan. This new annex should focus on any special planning needs generated by a hurricane or severe flooding scenario and will contain unique and regulatory response associated with extreme flooding. This project is being prepared concurrent to this Master Plan Reexamination Report, and funding is provided through the PSPAGP.

- **Develop a Geographic Information System (GIS) to Increase Resiliency**

The Borough should develop a GIS database and inventory of Borough-owned infrastructure to support future planning efforts. The components of the GIS would support facilities and public works infrastructure, land information, and floodplain management-related data layers and applications. This project is being prepared



concurrent to this Master Plan Reexamination Report, and funding is provided through the PSPAGP.

In addition, these aspects of the GIS program should be made available to the public through the Borough website or by visiting Borough Hall where staff members can help explain the various maps and hazards.

- **Participation in FEMA’s Community Rating System (CRS)**

The Borough should consider participating in the CRS. The CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum National Flood Insurance Program (NFIP) requirements. The NFIP administers the CRS which scores towns on their effectiveness in dealing with the mitigation of flood hazard events. As a result of earning CRS points, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS:

- Reduce flood damage to insurable property;
- Strengthen and support the insurance aspects of the NFIP; and
- Encourage a comprehensive approach to floodplain management.

- **Install a Borough-wide Supervisory Control and Data Acquisition (SCADA)**

The Borough should install a SCADA system. The SCADA system would communicate critical alarms to a centralized location or operational personnel within the Borough. This would be in conjunction with the Borough’s owned and operated facilities (including at pump stations, Borough Hall, the Police Department, firehouses, etc.). Use of a SCADA system can provide the Borough with accurate information on water and wastewater collection, pump control, pump station performance, as well as provide alarm notifications of system failure, emergency levels, and any other events as they occur. This would help protect the environmental quality of the Borough by preventing sewer spills into local waterways. The SCADA also would monitor fire, security, power failures, and generator operations for the Borough.

- **Drainage System Maintenance**

The Borough Department of Public Works checks for fallen trees and blocked storm drains routinely. It also regularly inspects and reports debris in streams and ditches. The Borough should remove debris and sediment accumulation in streams and ponds to speed draining of flood prone areas. The maintenance of these waterways is important to ensure proper drainage and to protect the health and safety of Borough



residents. The Borough should continue to support this maintenance program in an effort to decrease blockages and backups during storms.

- **Cleanup Minor Waterway**

The Borough plans to remove silt along the minor waterway parallel to Brookside Drive, just north of Rumson Road. During heavy rains, the stream backs up onto residential properties and occasionally floods Rumson Road. Any efforts to clean up the minor waterway should also include the installation of more drainage south and south east of Rumson Road. The downstream drainage system should also be further investigated for potential rehabilitation.

- **Comfort Station at Bingham Hall**

The Borough would like to develop Bingham Hall as a comfort station during emergencies. Any efforts to develop Bingham Hall as a comfort station should include the installation of an emergency standby generator, installation of a high-speed wireless network, acquisition of comfort supplies (emergency cots, food and water supplies), installation of electronic device charging stations, preparation of computer terminals, and installation of a television with a cable feed for news updates.

- **Rumson Boat Launch Bulkhead**

There is currently no bulkhead along the Borough's property to the northwest of the municipal boat ramp. The Borough should install approximately 225 linear feet of waterfront bulkheading at this site. The existing timber bulkhead on the northwest side of the ramp should also be replaced due to severe rot and inadequate length. Over the years, upland area has been lost due to storm surges and erosion. The installation of bulkheading will reclaim that property, prevent further erosion of the shoreline soils, and reduce flooding and impacts associated with small storm surges and nuisance tidal flooding. Due to the close proximity of critical facilities such as the DPW yard, Borough Hall, and Police Station, it is imperative that these facilities are protected and stay operation during a storm event.

- **Debris Management Plan**

The Borough should prepare a municipal Debris Management Plan including such components as allocating debris removal sites, collection strategies, and debris reduction methods.

- **Flood Warning Systems**

The Borough should consider implementing early flood warning systems for the Shrewsbury and Navesink Rivers as a shared service with other towns along the rivers.



- **Install Emergency Power**

The Borough should upgrade the shelter facility located at Rumson Fair Haven Regional High School, including the emergency power facility. The Borough should also install an emergency standby generator at the Oceanic Hook and Ladder Firehouse.

- **Portable Generator**

The Borough should install a quick connection system for a portable generator with a manual switch gear at Borough Hall.



Figure 4: Emergency Generator at the DPW Yard

- **Maintain Warning Systems**

The Borough alerts its residents to floods, storms, and other hazards through a Reverse 911 calling system, the Borough website, AM radio, and an emergency siren alerting system. The Borough should continue to maintain these current warning systems. Early warnings give residents time to prepare for the hazard and evacuate if necessary, resulting in reductions to the loss of life and property from an event. It is also recommended that the Borough provide additional information to the public, perhaps through the Borough website, on emergency sirens to ensure that all members of the public are aware of the various sirens and their meanings. For a relatively low cost, maintaining current warning systems will help protect the health and safety of the Borough's residents and ensure they are properly notified of incoming threats.

- **Upgrade Drainage System**

The south end of Club Way and the intersection of Holly Tree Lane and Navesink Avenue both experience regular nuisance flooding due to heavy rainfall and high tides. This often causes the areas to become impassable and can delay emergency response times. It is recommended that the Borough rehabilitate and upgrade the existing drainage system to increase capacity and decrease flooding at the south end of Club Way and at the intersection of Holly Tree Lane and Navesink Avenue. The

roads should also be reconstructed, possibly to a higher elevation, to provide proper slope and drainage.

- **Tree Maintenance**

It is recommended that the Borough perform tree maintenance. This recommendation involves tree trimming and pruning of shade trees along the streets in the community to prevent downed power lines. This should also involve increasing effectiveness of the Public Works Department to clear trees in the aftermath of a storm event, as well as coordination with utility companies.

- **Construct or Install Improvements to Eight Sanitary Sewer Pump Stations within the Borough**

The Borough should install emergency backup generators and/or flood proofing measures at pump stations at the following locations: Riverside Drive, Club Way, Thorton Way, Navesink Avenue, Buena Vista Avenue, and Shrewsbury Drive. Also recommended is reinforced steel, rubber gasket lined storm doors at the pump stations located at Marina and at Grant Avenue.

- **Department of Public Works Garage**

The Borough should install reinforced steel, rubber gasket-lined storm doors to the building's service bays to provide greater protection from wave action and flooding to the building's structure and contents.

- **Construct New Elevated Bulkhead**

The Borough should complete the installation of 150 linear feet of new, elevated bulkhead, the rehabilitation and replacement of existing drainage pipes, and the installation of a new tide valve at the intersection of Shrewsbury Drive and Avenue of Two Rivers.

- **Remove and Replace Existing Underground Fuel Storage Tanks**

The Borough should remove two existing underground fuel storage tanks (one diesel and one regular unleaded) and install two new above-ground tanks at the Department of Public Works Yard.

- **Oceanic Village, Waterfront Lands, and Commercial District**

The Borough is concerned with the future development of the area north of River Road, south of the Navesink River, west of Bingham Avenue, and east of Third Street. This area includes portions of the historic Oceanic Village, waterfront lands, and the commercial district. Additional study of this area and production of a more detailed plan for its future use and improvement is recommended.

- **Bridge Improvements**



The Borough Planning Board encourages the Borough to coordinate with Monmouth County to expedite the maintenance of the two drawbridges into Middletown and Sea Bright in order to allow more successful improvements and evacuation during emergencies.

- **Flood Hazard Mitigation in the West Park Section of the Borough, South of Rumson Road**

This area is subject to periodic flooding associated with fluctuations in the tidal cycle. To address this problem, the Borough is reviewing the possibility of reconstructing and raising the streets in this neighborhood prone to periodic inundation. The Borough should review the development regulations applicable to this area to determine if minimum elevations for finished lot grade or buildings should be required. For existing lots and improvements, additions or changes which would trigger a requirement to elevate a lot and existing improvements should also be reviewed. A requirement should also be considered that non-habitable floor space and lot grading be elevated to be compatible with the increased elevation of the street.

In addition, there are numerous stormwater outfall pipes located throughout the West Park neighborhood. If these outfalls do not have functioning tide valves, the river water can enter the outfalls and surcharge through the catch basins into the streets. This is a regular occurrence during full moon high tide events and results in flooded, impassable roads. The Borough should install tide valves on all outfalls in this area where none exist. This project is currently underway to install seven new tide valves, funded through Borough funds.

The Borough should also complete the installation of new

elevated bulkheads at the western terminus of Washington Avenue; the replacement of an existing tide valve at the western terminus of Grant Avenue and Waterman Avenue; and construction of an earthen berm and associated grading above the



Figure 5: Waterman Avenue Stormwater Outfall

existing bulkhead at the western and eastern terminus of Grant Avenue and the southwestern terminus of Waterman Avenue.

- **Living Shorelines**

The Borough should consider living shorelines as an approach to shoreline stabilization.

- **Community Vulnerability Analysis**

The Borough should undertake a Community Vulnerability Analysis to evaluate the number of structures that may be exposed to potential flood and storm surge risks.

Floodplain Management Plan Action Items

The following are a list of action items recommended in the Floodplain Management Plan, which is being prepared concurrent with this Master Plan Reexamination Report.

- **Floodproofing Non-Residential Buildings**

The Borough should encourage the floodproofing of non-residential buildings within the flood zone that do not meet the base flood elevation requirements. Information regarding the different floodproofing techniques should be made available to the public.

- **Road Elevation and Improvements**

As part of the Shrewsbury Drive road improvements in 2010, the road was elevated and a series of low flood walls were constructed adjacent to low-lying properties to prevent flood waters from entering the properties. This practice has proven successful and should be further evaluated for other future road improvements.

- **Wetlands Protection**

State regulations through the NJDEP freshwater and coastal wetland permit programs are currently in place to limit development in the Borough's wetland areas. The Borough should continue to support and enforce these programs. Additionally, the Borough should consider further investigation of living shorelines to augment these areas and provide additional shoreline stabilization.

- **Erosion and Sediment Control**

The Standards for Soil Erosion and Sediment Control in New Jersey are regulated by the New Jersey Department of Agriculture and locally enforced through the Freehold Soil Conservation District. The Borough should continue to support and enforce these standards for all applicable development.

- **Water Quality Improvement**



The Borough of Rumson currently enforces the NJDEP Best Management Practices for stormwater runoff quality and reduction of total suspended solids. Green infrastructure techniques should also be used to promote resiliency in the Borough and improve the water quality entering the Navesink and Shrewsbury Rivers. Green infrastructure uses permeable surfaces, landscape formations, and plant material to intercept stormwater runoff before it enters storm drains by promoting infiltration and filtration. Their use can promote resiliency by mitigating flooding and helping the Borough to quickly recover from storms. Additionally, green infrastructure captures runoff pollution and prevents it from entering waterways.

- **Coastal Barrier Protection**

Rumson is protected from the Atlantic Ocean by the Borough of Sea Bright. Additionally, there are a number of uninhabited islands located throughout the rivers that act as natural buffers. A number of these islands are identified on the Preliminary FIRM map as Coastal Barrier Resource System Areas. The Borough should continue to maintain these islands as undeveloped open space.

- **Health and Safety Maintenance**

After flooding and other severe storms, the Police Department is responsible for patrolling evacuated areas to prevent break-ins and looting. Clearing streets and removing debris is performed through the Borough Department of Public Works and outside contractors when necessary. The Borough should continue to make the health and safety of its residents and business owners a priority after storms.

- **Building Inspections**

Many buildings were severely damaged during Hurricane Sandy. The process of inspecting each house for structural damage and possible condemnation can be lengthy and result in homeowners being kept out of their houses for extended periods of time. As part of the Emergency Operations Plan, the Borough should prepare a written procedure for inspecting damaged properties before they can be reoccupied. The Borough should consider hiring outside consultants to aid in the process if necessary.

- **Mitigation Funding**

After severe storm events, Borough officials are in regular contact with County and State OEM offices, as well as FEMA representatives, to identify various mitigation opportunities and funding sources. The Borough should continue this process to ensure both the Borough and its residents have access to all appropriate grants and that proper procedures are followed prior to repairs.



- **Outreach Projects**

The Floodplain Management Plan Committee should consider participation at local events through setting up a booth at local events. Additionally, information on flood hazards and mitigation activities can be mailed out annually as newsletters or with tax bills. The Borough could also consider including a section on its website devoted to floodplain management and hazard mitigation.

- **Library**

The Monmouth County Library System contains current FEMA publications on flooding. The Borough should encourage the Oceanic Library to do the same so that Borough residents have access to this information.

- **Technical Assistance**

The Borough building and construction department can make available pamphlets and booklets concerning flood preparation, NFIP, elevation requirements, flood venting, etc.

- **Environmental Education**

To increase environmental awareness and knowledge of flood risks within the community, the Borough should coordinate with the Rumson Fair Haven Environmental Awareness Club and other local organizations.



VII. Recommendations Concerning the Incorporation of Redevelopment Plans

The Planning Board finds that there are no areas within the Borough of Rumson that require investigation as possible “areas in need of redevelopment” in accordance with N.J.S.A. 40A:12A et seq., the Local Redevelopment and Housing Law. Therefore, changes in the local development regulations are not necessary at this time.



Master Plan Amendment

Introduction

The purpose of this Master Plan amendment is to incorporate the recommendations and changes that have been outlined in the 2015 Reexamination Report into the Borough's Master Plan, or to establish the basis for future actions through the definition of new goals and objectives. This Master Plan amendment: updates and adds to the Master Plan objectives, problems, and assumptions; updates the Land Use Plan Element with updated existing land use mapping and a discussion on building resiliency; and includes an update to the community facilities plan element to promote resiliency and include updated mapping of community facilities and critical infrastructure.

Hurricane Sandy struck the coast of New Jersey on October 29, 2012, and its storm surge and winds caused extensive damage to the Borough of Rumson's roadways, critical infrastructure, utility services, and to buildings and homes. This document is the Borough's response to Hurricane Sandy's impacts, and offers new opportunities for examining community resiliency and ensuring that recovery efforts address the Borough's needs for the future.



Master Plan Objectives, Problems, and Assumptions

Given the experience of Hurricane Sandy, it is important that the Master Plan objectives promote sustainability and resiliency, as well as the local-level implementation of the Monmouth County Multi-Jurisdictional Hazard Mitigation Plan Draft Update and the recommendations of the 2014 Strategic Recovery Planning Report. The Master Plan is, therefore, amended to include new resiliency objectives, provided below. In addition, the existing objectives, problems, and assumptions that underpin Borough planning are: reproduced to promote clarity and centrality of information; and, updated to the extent necessary in order to adequately reflect conditions as of 2015.

Planning Objectives

1. Maintain Rumson's character as a residential community and the quality of life that it offers.
2. Encourage the most appropriate use of land consistent with neighborhood character and its suitability for development.
3. Establish appropriate population densities and limit the intensity of development to both preserve the natural environment and to ensure neighborhood, community, and regional well-being.
4. Maintain a satisfactory level of public facilities and services.
5. Secure the public's safety from fire, flood, panic, and other natural and man-made disasters. Adapt efforts accordingly to reflect updated flood levels and data from the Federal Emergency Management Agency (FEMA) and the National Oceanic and Atmospheric Administration (NOAA).
6. Maintain fiscal stability.
7. Ensure that Rumson's development does not conflict with the development and general welfare of neighboring municipalities, the county, and the state as a whole.
8. Coordinate development with land use policies to encourage the appropriate and efficient expenditure of public funds.
9. Provide sufficient space in appropriate locations for residential, recreational, commercial, and open space use.
10. Locate and design transportation routes to promote the free flow of traffic while discouraging congestion or blight.
11. Promote a desirable visual environment.
12. Conserve historic sites and districts.
13. Prevent urban sprawl and degradation of the environment through improper land use.



14. Expand housing opportunities within the Borough compatible with neighborhood character and the needs of present and future residents.
15. Promote the recovery of recyclable materials from municipal solid waste and encourage the conservation of energy.
16. Protect the natural resources and qualities of the Borough including freshwater and saltwater wetlands, floodplains, stream corridors, open space, steep slopes, and areas with scenic, cultural, and recreational values.

Resiliency Objectives

1. Plan for new development to minimize risk from natural hazards.
2. Promote public awareness of hazard mitigation and resiliency issues.
3. Focus public agencies on community vulnerabilities to hazards such as flooding.
4. Encourage future capital projects to be located outside flood hazard areas.
5. Encourage renovations and modifications that are resilient to flood- and storm-related impacts.
6. Encourage municipal efforts and initiatives in FEMA's Community Rating System (CRS).

Problems Articulated in the 1988 Master Plan

1. The disposal of solid waste and implementation of recycling to meet state recycling goals.
2. Addressing the Borough need for low and moderate income housing.
3. Controlling the intensity of development within the existing residential neighborhoods in order to ensure that infill development, redevelopment, or expansions are compatible with neighborhood character.
4. Conserving scenic waterfront views along the Navesink River and the Shrewsbury River.
5. Managing further development within the business and commercial districts to be compatible in scale and intensity with surrounding residential areas and with the character of the business area.
6. Discouraging piecemeal conversions of residential uses in commercial areas into substandard commercial properties.
7. Improving pedestrian and vehicular circulation in the business districts.
8. Protecting Borough landmarks.
9. Protecting sensitive natural features including wetlands and flood hazard areas.





Figure 6: Coastal Area of Rumson

Assumptions that Underpin Borough Planning

1. The continued economic viability of Rumson as a single family residential community with supporting public, commercial, and institutional facilities and services.
2. Given a stable population level, there will be minimal need to expand municipal facilities and services. However, an expansion of recreational facilities will be required to address resident and Borough needs.

Land Use Plan Element

As has been previously noted, the 2015 Master Plan Reexamination Report recommends that the Land Use Plan Element be amended to facilitate increased sustainability and promote resiliency through the use of green building and infrastructure techniques. The 2015 Master Plan Reexamination Report also recommends that the Land Use Element be amended to include current existing land use mapping. This is achieved below.

Current Land Use Mapping

The Land Use Plan Element is updated to incorporate the following mapping presented in Appendices A through C of this document:

- Current land use mapping that is presented in Appendix A;
- Critical environmental areas that are presented in Appendix B; and
- The Existing Zoning and Flood Hazard Areas Overlay that is presented in Appendix C. No zoning changes are warranted in this Amendment, as the Borough is nearly fully developed and there are limited, if any, areas to be modified that would reflect lessons learned by Hurricane Sandy.

R-5 Zone, West Park Neighborhood

The West Park area is a densely developed neighborhood of the Borough and is wholly located in a flood hazard area. A significant number of the single family residences in West Park were substantially damaged by Hurricane Sandy.

The Planning Board is concerned about the potential for additional intensification of this residential area and the resultant potential increase in the number of homes which would be subject to the impact of future storm events. Approximately one-fifth of the residential lots in West Park are double the required minimum lot area (6,000 square feet) for the R-5 zone. Therefore, the Planning Board encourages the Borough to monitor development activity in West Park and evaluate appropriate zoning requirements to limit possible infill development through re-subdivision of existing residential properties and thereby minimize potential future damages.

Building Resiliency through Development Regulations

Given the experience of Hurricane Sandy and the potential for future storms, there is a compelling need to build resiliency in the Borough of Rumson. The Land Use Plan Element, therefore, recommends that the Borough's development regulations be designed to build resiliency throughout the Borough. This should be done through the promotion of green building and infrastructure techniques. This section of the Land Use



Plan Element overviews green building and infrastructure techniques, and is meant to inform the future development of municipal development regulations.

Green Building and Infrastructure Techniques

Green building and infrastructure techniques are an important tool for promoting resiliency in the Borough of Rumson. They use permeable surfaces (e.g., porous concrete, gravel, mulch, etc.), landscape formations (e.g., channels, depressions), plant material, or other technologies to reduce stormwater runoff by promoting natural infiltration. Their use can promote resiliency by mitigating flooding (i.e., reducing the risk and impacts of flooding) and helping the Borough to quickly recover from storms. In addition, they provide numerous co-benefits, not the least of which are: reducing long-term maintenance and operation costs of stormwater infrastructure; and, capturing runoff pollution (e.g., particular matter, heavy metals) and preventing their entry into sensitive terrestrial waterways.

The Land Use Plan Element recommends the incorporation of green building and infrastructure techniques in the Borough's development regulations. Recommended green building and infrastructure techniques are described in the following subsections.

Downspout Disconnection

Downspout disconnection refers to the rerouting of rooftop drainage pipes to specialized containment devices (e.g., rain barrels, cisterns) and permeable areas, instead of traditional stormwater drainage systems. This allows stormwater runoff from building roofs not only to infiltrate soil, but also to be collected for later use (e.g., watering lawns and gardens), which reduces demand on public water supplies.



Figure 7: Downspout Disconnection (Source: EPA)

Rain Gardens

Rain gardens are shallow, vegetated basins that absorb stormwater runoff from impervious surfaces (e.g., rooftops, sidewalks, and streets). Runoff is channeled into rain gardens, and is then used by plants, infiltrated into the ground, and evaporated. They may be installed in a variety of locations, and can be an attractive element of site design. In addition, it is important to note that rain gardens can be installed in a variety of locations. Indeed, they may be installed in any properly graded unpaved space, and in parking lots and paved areas through the construction of specialized planter boxes that collect and absorb runoff.



Figure 8: Rain Gardens (Source: EPA)

Bioswales

Bioswales are open, linear channels with vegetation, mulching, or xeriscaping that slow stormwater runoff and attenuate flooding potential while conveying stormwater runoff away from critical infrastructure. While they convey stormwater runoff away from critical infrastructure, their permeable surface permits the natural infiltration of stormwater. They are often used as an alternative to, or enhancement of, traditional stormwater drainage systems.



Figure 9: Bioswales (Source: EPA)

Permeable Pavements

Permeable pavements help to reduce stormwater runoff, which helps to improve the quality of terrestrial waters and mitigate flooding. With traditional (i.e., impervious) pavement, stormwater runs into drains and inlets, which places a burden on such infrastructure, and may result in the discharge of pollutants (e.g., sediment, oil residue, etc.) into terrestrial waters. Permeable pavements, however, infiltrate, treat, or store rainwater where it falls. Key examples of permeable pavements include pervious concrete, porous asphalt, and permeable interlocking pavers.



Figure 10: Permeable Pavements (Source: EPA)

Green Roofs

Green roofs are roofs that are covered with substrate and vegetation that enable the infiltration of rainwater. This not only minimizes stormwater runoff, but leads to reduced building operating costs and energy consumption by providing improved insulation of the roof surface, and absorbing less heat on the roof surface (i.e., increasing the roof surface albedo over traditional roof surfaces). Flat and low-pitched roofs are most suited to green roof development and retrofitting therewith.



Figure 11: Green Roofs (Source: EPA)

Tree Cover

Increased tree cover in developed areas is an important example of green infrastructure. Trees reduce and slow stormwater by intercepting precipitation in their leaves and branches. In addition, their root systems help to aerate soil, which facilitates natural infiltration of stormwater and reduces runoff. Trees also purify the air, and can help to cool developed areas by providing shade, and through evaporative cooling and increased latent heat flux (i.e., the dissipation of sensible heat).

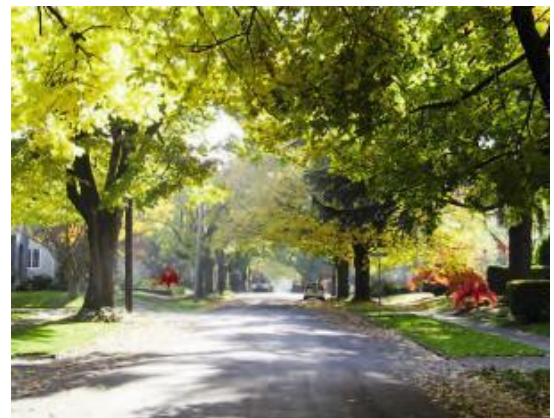


Figure 12: Tree Cover (Source: EPA)

Living Shorelines

Living shorelines are an approach to shoreline stabilization that uses wetland plants, submerged aquatic plants, oyster reefs, coir fiber logs, sand fill, and stone to provide shoreline protection and maintain important habitat areas. They offer numerous benefits over hardened structures (e.g., bulkheads and concrete walls), including protection of the riparian and intertidal environments, improvement of water quality via filtration of upland runoff; and creation of habitat for aquatic and terrestrial species.

Open Space Preservation

Preservation of open space areas within and adjacent to developed areas can help to mitigate the water quality and flooding impacts of stormwater. Indeed, natural open space areas promote increased groundwater recharge, lower stormwater runoff, and reduced levels of nutrients and sediment in terrestrial waters. They also help to cool developed areas through evaporative cooling and increased latent heat flux. The use of building coverage and impervious surface limits, tree-save requirements, and noncontiguous clustering are key ways to promote open space preservation through development regulation.



Figure 13: Open Space Preservation (Source: EPA)

Changes to Development Regulations

The zoning ordinance should be amended to require as-built surveys for new construction and additions to mitigate the problems resulting from the increase in new impervious coverage and changes in grading. Construction and reconstruction as part of the recovery from Hurricane Sandy has increased residential building activity. The construction has increased concerns regarding stormwater runoff on to adjoining properties.

Community Facilities and Resiliency Plan Element

The 2015 Master Plan Reexamination Report recommends that the Community Facilities Plan Element be updated to include updated mapping of community facilities and critical infrastructure, and to promote resiliency at community facility and critical infrastructure sites. This is achieved in the following subsections.

Promoting Resiliency

The following section on promoting resiliency should be added to the Community Facilities and Resiliency Plan Element:

Hurricane Sandy caused extensive damage to community facilities and other critical infrastructure in the Borough of Rumson. All of the Borough's sewage pump stations went offline due to floodwater inundation and/or power system failure. Trees and power lines throughout the Borough fell, in many cases damaging buildings and homes. The Borough also faced power outages for 14 days.

Given the experience of Hurricane Sandy and the potential for similar storms in the future, it is important that the Borough promote the resiliency of its community facilities and critical infrastructure. This can be done through the application of green building and infrastructure techniques, which are discussed in the Land Use Element of this Master Plan. It can also be achieved through physical flood control and related devices, elevation of facilities above the advisory base flood elevation, careful site selection for new facilities, or other means. In addition, resiliency can be promoted by providing new and upgraded emergency power generation facilities at important sites, such as municipal buildings, police station, schools, and pump stations, which will help the Borough to function in times of crisis. By promoting the resiliency of community facilities and critical infrastructure, the Borough is not only protecting its investment, but may also set an important example for others to follow and thereby increase the overall sustainability and resiliency of the Borough.

Historic Properties

The Borough of Rumson's Historic Preservation Commission has prepared a preliminary list of the Borough's historic properties inventory. This list includes 416 homes that were built in or before 1918, remain standing, and have not undergone significant renovations to facades. These properties are part of the community's assets, and may be threatened by flood hazard areas. The mapping presented in Appendix D depicts the Borough's historic preservation properties in relation to flood hazard areas. Of the 416 properties included in the inventory, 99 are located in the AE zone (with a one percent chance of



annual flooding), and 17 are located within the VE velocity flood zone (also with a one percent chance of annual flooding). The Community Facilities and Resiliency Plan Element should be updated to include the mapping presented in Appendix D: Historic Properties. This inventory and relevant mapping also serve as an amendment to the Historic Preservation Element which was prepared as a part of the 1988 Master Plan. This is also in accordance with the Borough's general planning objective to "conserve historic sites and districts."

Public Facilities and Other Critical Infrastructure Mapping

The Community Facilities and Resiliency Plan Element should be updated to include the following list of resiliency improvements to public facilities and critical infrastructure. This list of improvements is included and described in the "Other Recommendations/Capital Recommendations" section of the 2015 Master Plan Reexamination Report.

- Zoning and Construction Permit Process Automation and Updates
- Update the Borough's Hazard Mitigation Plan (HMP)
- Revise and update the Borough's Emergency Operations Procedure Manual
- Develop a Geographic Information System (GIS) to Increase Resiliency
- Participation in FEMA's Community Rating System (CRS)
- Install a Borough-wide Supervisory Control and Data Acquisition (SCADA)
- Drainage System Maintenance
- Cleanup Minor Waterway
- Comfort Station at Bingham Hall
- Rumson Boat Launch Bulkhead
- Debris Management Plan
- Flood Warning Systems
- Install Emergency Power
- Portable Generator
- Maintain Warning Systems
- Upgrade Drainage System
- Tree Maintenance
- Construct or Install Improvements to Eight Sanitary Sewer Pump Stations within the Borough
- Department of Public Works Garage
- Construct New Elevated Bulkhead
- Remove and Replace Existing Underground Fuel Storage Tanks
- Oceanic Village, Waterfront Lands, and Commercial District



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- Coordinate with Monmouth County on Bridge Improvements and Maintenance
- Flood Hazard Mitigation in the West Park Section of the Borough, South of Rumson Road
- Living Shorelines
- Community Vulnerability Analysis

Additionally, the Community Facilities and Resiliency Plan Element should also be updated to include the following list of action items identified in the 2015 Floodplain Management Plan, which is being prepared concurrent with this document:

- Floodproofing Non-Residential Buildings
- Road Elevation and Improvements
- Wetlands Protection
- Erosion and Sediment Control
- Water Quality Improvement
- Coastal Barrier Protection
- Health and Safety Maintenance
- Building Inspections
- Mitigation Funding
- Outreach Projects
- Library
- Technical Assistance
- Environmental Education

Furthermore, this Community Facilities and Resiliency Plan Element is updated to include public facilities and critical infrastructure mapping that is presented in Appendix E of this document. Note that this mapping shows the relation of these features to mapped flood hazard areas.



Circulation Plan Element

As has been previously mentioned in the 2015 Master Plan Reexamination Report, the Circulation Plan Element should be prepared in order to: include recommendations for the development of emergency evacuation routes; and promote the development of bicycle and pedestrian connections. This is achieved in the following subsections.

Emergency Evacuation Routes

Rumson Borough's location on waterways and the potential for additional hurricanes and storms in the future make it necessary to plan for emergency evacuation routes to move people and equipment in times of emergency, and provide safe, efficient routes to emergency shelters and similar facilities within the region. This is particularly important for flood-prone areas of the Borough.

Key aspects of emergency evacuation route planning include identification of potential routes, completing necessary modernization and upgrading, ensuring that routes are properly maintained and marked through signage, and informing the public about the presence of such routes. To elaborate, it is noted that potential routes should provide regional connections. Modernizing and upgrading roadways to be used as emergency evacuation routes will improve mobility and facilitate the evacuation of the Borough in times of crisis.

In addition to the above, it is noted that the planning of emergency evacuation routes should be coordinated with the New Jersey Department of Transportation, Monmouth County, and neighboring municipalities. This is important not only because evacuation routes would provide connections to the broader region, but also because roadways used as potential evacuation routes may fall under state, county, or municipal jurisdictions.

Bicycle and Pedestrian Connections

Bicycle and pedestrian connections are encouraged and should be provided to the maximum extent possible in all areas of the Borough, and particularly between parks, recreation, and open space areas, and important population centers. Providing such connections will not only help to make the Borough of Rumson more sustainable by promoting non-motorized transportation, but also greatly improve the quality of life for Borough residents. While sidewalks are an important pedestrian facility, the focus of this Circulation Plan Element is on dedicated and shared bicycle lanes, greenways, and multipurpose trails.

To maximize the provision of bicycle and pedestrian linkages, this Circulation Plan Element does not specify the exact locations where they should be provided, but rather



establishes a vision, discusses key principles of the design and maintenance of bicycle and pedestrian facilities, and outlines important goals and objectives for their provision.

Vision for Bicycle and Pedestrian Linkages

The Circulation Plan Element's vision is to develop the Borough's network of bicycle and pedestrian linkages and secure the recreation and transportation benefits of bicycling and walking for Borough residents. The Circulation Plan Element envisions a network of bicycle and pedestrian linkages that connects the Borough's population centers with: open space and recreation areas; schools; commercial nodes; and other key destinations in the Borough of Rumson and neighboring municipalities.

The Circulation Plan Element also envisions that linkages will be provided in the form of: on-road bicycle lanes, lanes shared between bicycles and vehicles, where appropriate; greenways; and protected multipurpose trails. In all variations, bicyclists and pedestrians will be able to travel in a safe and efficient manner throughout the network, which will boost bicycling and walking for recreation, and increase their use as a means of transport.

Additionally, in July 2014 the Borough of Rumson adopted Resolution 2014-0722-106 in support of the Monmouth County Complete Streets Policy. In this resolution the Borough requested that Monmouth County act as the lead agency in support of a bicycle lane initiative that would increase the connectivity of Monmouth County municipalities using both local and county roads.

Facility Design and Maintenance

When planning bicycle and pedestrian linkages, it is important to pay attention to the needs and expectations of users, the facility's visual appeal and design, and its upkeep. The following subsections provide an overview of basic concepts to guide the planning and development of bicycle and pedestrian facilities within the Borough of Rumson.

High Quality Experience

As a starting point, it is important to consider the elements that lead to a high quality experience. Examples of such elements include: visual appeal; pleasantness and convenience of location; presence of interconnections, residential areas, and community facilities; sufficient length, accessibility for users with limited mobility; and the availability of special features, such as educational opportunities, benches, shelters, and similar amenities. When planning bicycle and pedestrian facilities, it is important to maximize the availability of these elements in order to provide a high quality experience.



User Needs

It is also important to consider the needs and physical ability of the user. For example, the elderly and disabled will typically have different levels of ability than the remainder of the population. By giving consideration to the needs and physical ability of all users, use and success of the network will be maximized. Accommodating a broad cross section of users of all ages and abilities will help to maximize the use and success of the network.

Connectivity

Connectivity refers to the linkages a network provides from a given point to another. When planning bicycle and pedestrian facilities, it is important to consider possible connections between neighborhoods, business districts, parks, community facilities, and natural environments. By providing such connections, bicycle and pedestrian facilities can provide a viable route to a destination.

Facility Type

Facility type will affect its design. The basic types of bicycle and pedestrian facilities are: on-road bicycle lanes; shared lanes; greenways; and multipurpose trails.

- **Dedicated, On-Road Bicycle Lanes:** On-road bicycle lanes provide dedicated space for cyclists where motorists are not allowed to park, stand, or drive. They are designated with striping, signage, and pavement markings, and make the movements of motorists and cyclists more predictable, thereby increasing safety. They are generally unidirectional, and travel in the same direction as the adjacent vehicle travel lanes. They are located on the right side of the roadway (i.e., along the curb), and when on-street parking is available they are generally situated between vehicle travel and parking lanes. According to guidelines of the American Association of State Highway and Transportation Officials, the minimum recommended width of an on-road bicycle lane is four feet. However, six feet is the preferred width recommended by this Circulation Plan Element. The additional width provides a greater degree of separation between bicycles and motor vehicles. Standards of the American Association of State Highway and Transportation Officials indicate that striping to separate on-road bicycle lanes from vehicle travel lanes should be six inches in width. Striping to separate on-road bicycle lanes from parking lanes should be four inches.
- **Shared Lanes:** Bicycle facilities may be provided in lanes shared between bicycles and motor vehicles. Shared lanes may be suitable on roadways with low traffic volumes or wide roadway shoulders, and are generally a low-cost solution because they can be provided without the requirement for physical changes to the



roadway. Indeed, shared lanes only require bikeway network signage; they can, however, be supplemented with pavement markings. The width of a shared lane should ideally be 15 feet to allow for enough clearance between bicycles and large vehicles.

- **Greenways:** Greenways are long, linear open spaces that provide a setting for nature conservation and recreation. They often contain trails and link parks. The corridors of streams and rivers, and utility easements lend themselves to greenway development. Greenways are often the location of bicycle and pedestrian facilities.
- **Multipurpose Trails:** Multipurpose trails facilitate connections within the community. They provide for safe, non-motorized passage between residential and commercial areas, parks and open space areas, and other community features. A width of eight to ten feet is appropriate for multipurpose trails. In certain high-traffic areas, however, a width of ten to twelve feet may be appropriate. In all cases, the width should be enough to accommodate bidirectional passage. Multipurpose trails may be provided in roadway rights-of-way, but when they are provide in such areas, they are physically separated from motor vehicle traffic by open space or some other type of physical barrier (e.g., guard rail, curbing, etc.).
- **Signage:** Signage serves a number of important functions. Most importantly, it helps a user to identify his or her location and conveys information about facility characteristics. As such, proper signage is an important part of bicycle and pedestrian facility design.

Signage at the trailhead should include: the name of the facility; a large-format map; length; permitted activities; and information on connections. Signage should contain a minimal amount of text by making extensive use of icons and pictograms. Locational markers placed at regular intervals along the route should supplement this information. Additionally, interpretative signage should be provided where significant natural or cultural features are present. All signage should be made of durable materials that resist fading, water damage, and vandalism.

With regard to traffic signage, it is noted that the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD) provides standards for all traffic control devices nationwide, including signs for bicycle facilities. All traffic control devices nationwide must conform to its standards. It is, therefore, the recommendation of the Circulation Plan Element that the current MUTCD be consulted when planning traffic control signage.



- **Amenities:** When planning bicycle and pedestrian facilities, it is important to provide appropriate amenities. The appropriateness of a particular amenity will be determined by the function, type, and anticipated users of the facility. Amenities have a significant impact on a user's overall experience, and may include: bicycle racks; resting areas; benches; picnic areas; drinking fountains; animal-proof refuse containers; observation areas; and shelters, among others.
- **Maintenance:** The proper maintenance and upkeep of the Borough of Rumson's bicycle and pedestrian facilities will ensure the public's continued use, safety, and enjoyment. As such, maintenance is an integral part of the bicycle and pedestrian facility planning process.

The maintenance required for a specific facility will be determined by type, surface, and amenities. Consequently, it is the recommendation of this Circulation Plan Element that a maintenance plan be written for the bicycle and pedestrian network in the Borough of Rumson.

A facility's future maintenance needs must also be considered during the design process. For instance, off-road facilities should be designed to be accessible to maintenance vehicles. Additionally, benches and other amenities should be designed to be low maintenance. By giving forethought to maintenance in the design process, a facility's future maintenance requirements can be simplified.

Goals for Bicycle and Pedestrian Linkages

The Borough's goals for bicycle and pedestrian linkages are as follows:

- Provide bicycle and pedestrian linkages between neighborhoods and key destinations within the Borough, and to neighboring municipalities.
- Establish a permanent advisory committee for bicycle and pedestrian facilities.
- To the greatest extent possible, develop bicycle and pedestrian linkages between dead-end streets and cul-de-sacs.
- Provide identification and guide signs for bicyclists and pedestrians.
- Provide safe and adequate bicycle parking options at key destinations, and in all public parks.
- Work with Monmouth County to provide signage that alerts motorists of the presence of bicyclists along county roadways.
- Provide only bicycle-safe sewer grates in all areas of the Borough.
- Provide adequate lighting to ensure safety for bicyclists and pedestrians.



2015 Master Plan Reexamination Report & Amendment Borough of Rumson, Monmouth County, New Jersey

- Ensure that all bicycle projects comply with recognized design standards, such as the *Guide for the Development of Bicycling Facilities* prepared by the American Association of State Highway and Transportation Officials.
- Investigate potential funding mechanisms for bicycle and pedestrian facilities, including grants and open space trust funds.
- Coordinate bicycle planning with adjoining municipalities, Monmouth County, and the State of New Jersey.
- Develop a borough-wide bicycle and pedestrian facility map that is displayed at parks and other major destinations.
- Provide traffic calming at key locations to improve bicycle and pedestrian safety and encourage use of facilities.

Furthermore, this Circulation Plan Element is updated to include the public facilities and critical infrastructure mapping that is discussed in the Community Facilities and Resiliency Plan Element, as shown in Appendix E of this document. Note that this mapping shows the relation of these features to mapped flood hazard areas.



Stormwater Management Plan Element

As recommended in the 2015 Master Plan Reexamination Report, the Stormwater Management Plan Element is hereby amended to incorporate both the Borough's Hazard Mitigation Plan action items identified in the 2015 Master Plan Reexamination Report and also the green building and infrastructure techniques outlined in the 2015 Land Use Plan Amendment.



Housing Plan Element

The Borough of Rumson already filed a plan with the Council on Affordable Housing (COAH), but the plan has not been certified, therefore the Borough of Rumson is classified as having a “participating” status before COAH. A decision by the New Jersey Supreme Court on March 10, 2015 established a transitional process in which the Borough will be able to file a declaratory judgment action immediately upon the March 10 decision becoming effective on June 8, 2015. The Borough should undertake a review of the implications of the Supreme Court decision and make a determination of the appropriate course of action to address compliance with the affordable housing obligation.

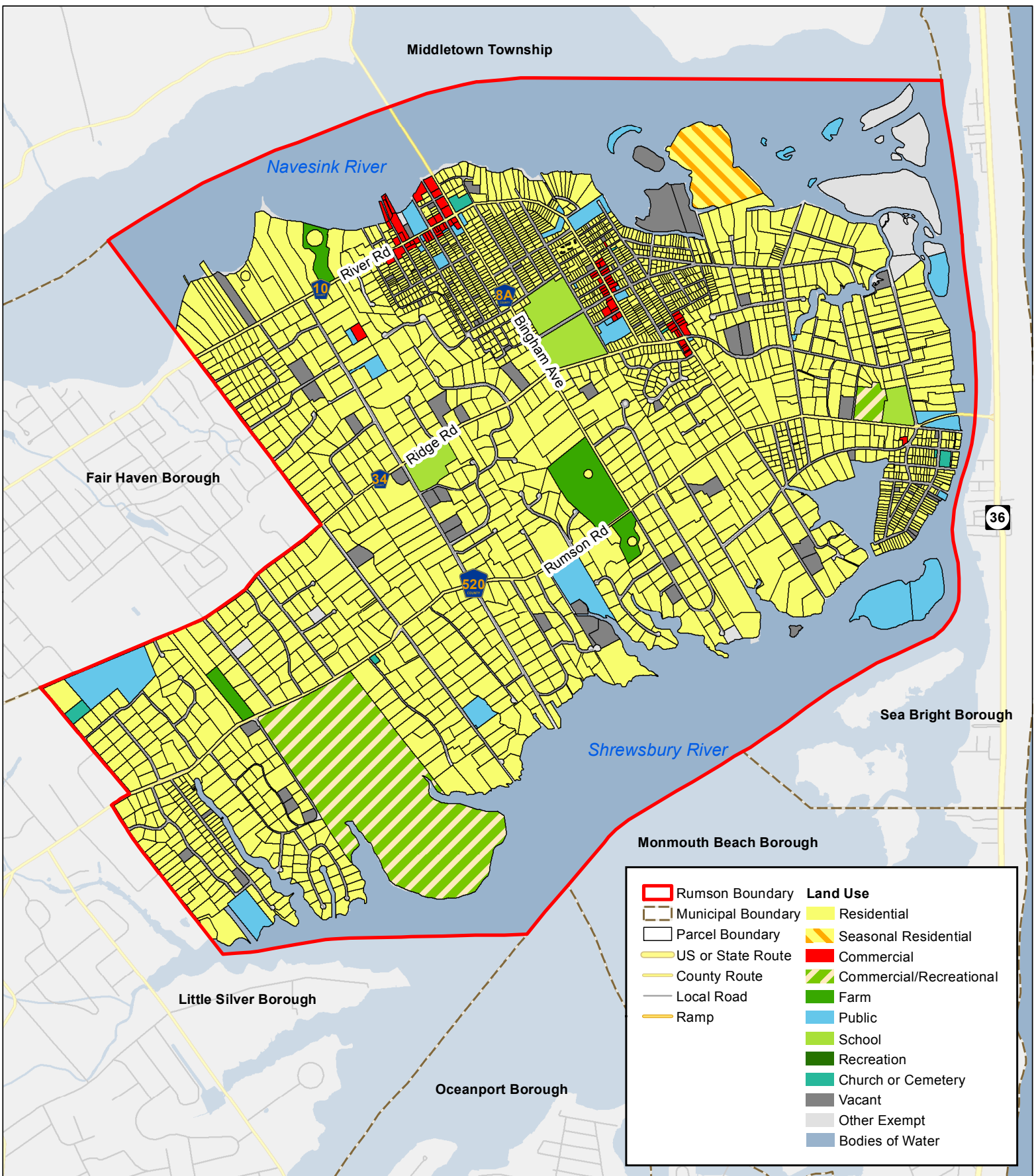
While it is not the intent for this Housing Plan Element to make any changes to the Borough’s Housing Element and Fair Share Plan at this time, the Housing Plan Element is hereby amended to address the following:

- The Borough encourages homeowners of single-family structures to elevate their homes to make them more resilient to future Sandy-type storms.
- It is the Borough’s policy that affordable housing should not be located within the flood hazard areas.



Appendix A: Existing Land Use Map





T&M Associates
 11 Tindall Road
 Middletown, NJ 07748-2792
 Phone: 732-671-6400
 Fax: 732-671-7365

0 0.125 0.25 0.5 0.75 1 Miles

Prepared by: JAC, 2/19/2015
 Source: NJDEP; NJDOT; NJGIN; Monmouth County; Borough of Rumson
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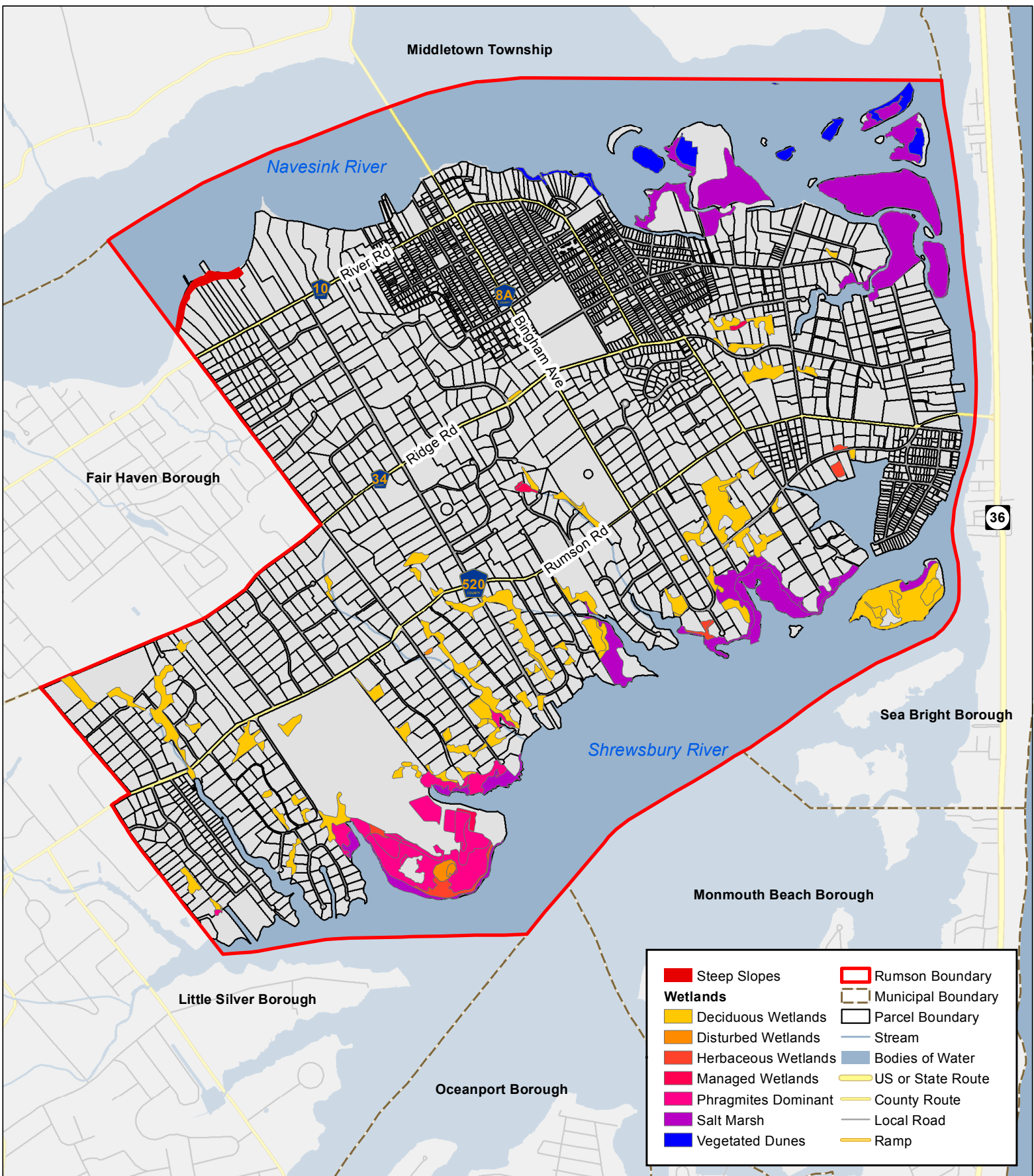
2014 Master Plan Reexamination Report Existing Land Use Borough of Rumson Monmouth County, New Jersey



NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

Appendix B: Critical Environmental Areas





| | | | |
|-----------------|---------------------|--|--------------------|
| | Steep Slopes | | Rumson Boundary |
| Wetlands | | | Municipal Boundary |
| | Deciduous Wetlands | | Parcel Boundary |
| | Disturbed Wetlands | | Stream |
| | Herbaceous Wetlands | | Bodies of Water |
| | Managed Wetlands | | US or State Route |
| | Phragmites Dominant | | County Route |
| | Salt Marsh | | Local Road |
| | Vegetated Dunes | | Ramp |



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 Fax: 732-671-7365

0 0.125 0.25 0.5 0.75 1 Miles

Prepared by: JAC, 10/17/2014
 Source: NJDEP; NJDOT; NJGIN; Monmouth County; Borough of Rumson
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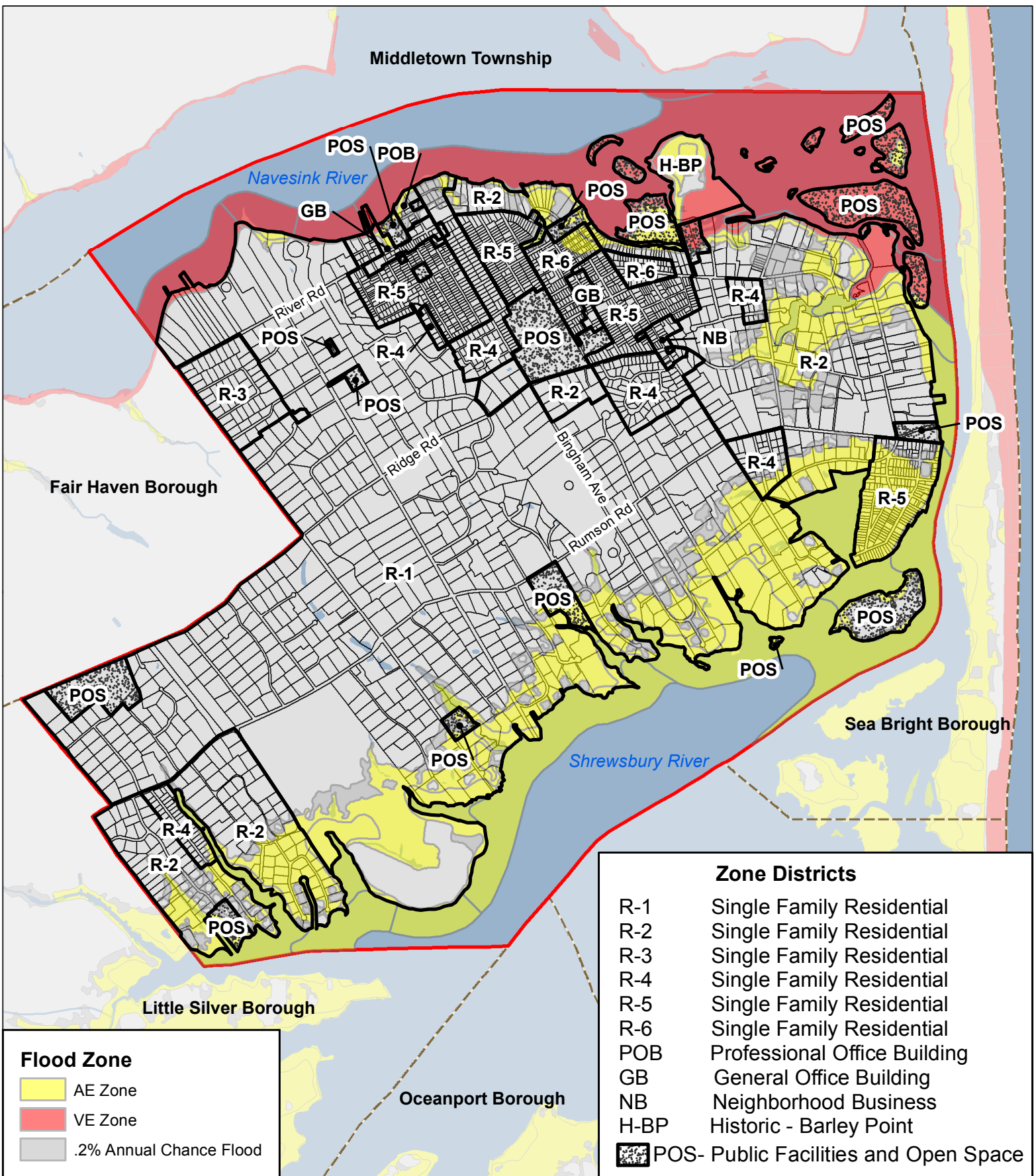
Critical Environmental Areas Borough of Rumson Monmouth County, New Jersey



NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

Appendix C: Existing Zoning & Flood Hazard Areas Overlay





Flood Zone

- AE Zone
- VE Zone
- .2% Annual Chance Flood

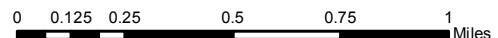
Zone Districts

| | |
|------|----------------------------------|
| R-1 | Single Family Residential |
| R-2 | Single Family Residential |
| R-3 | Single Family Residential |
| R-4 | Single Family Residential |
| R-5 | Single Family Residential |
| R-6 | Single Family Residential |
| POB | Professional Office Building |
| GB | General Office Building |
| NB | Neighborhood Business |
| H-BP | Historic - Barley Point |
| POS | Public Facilities and Open Space |



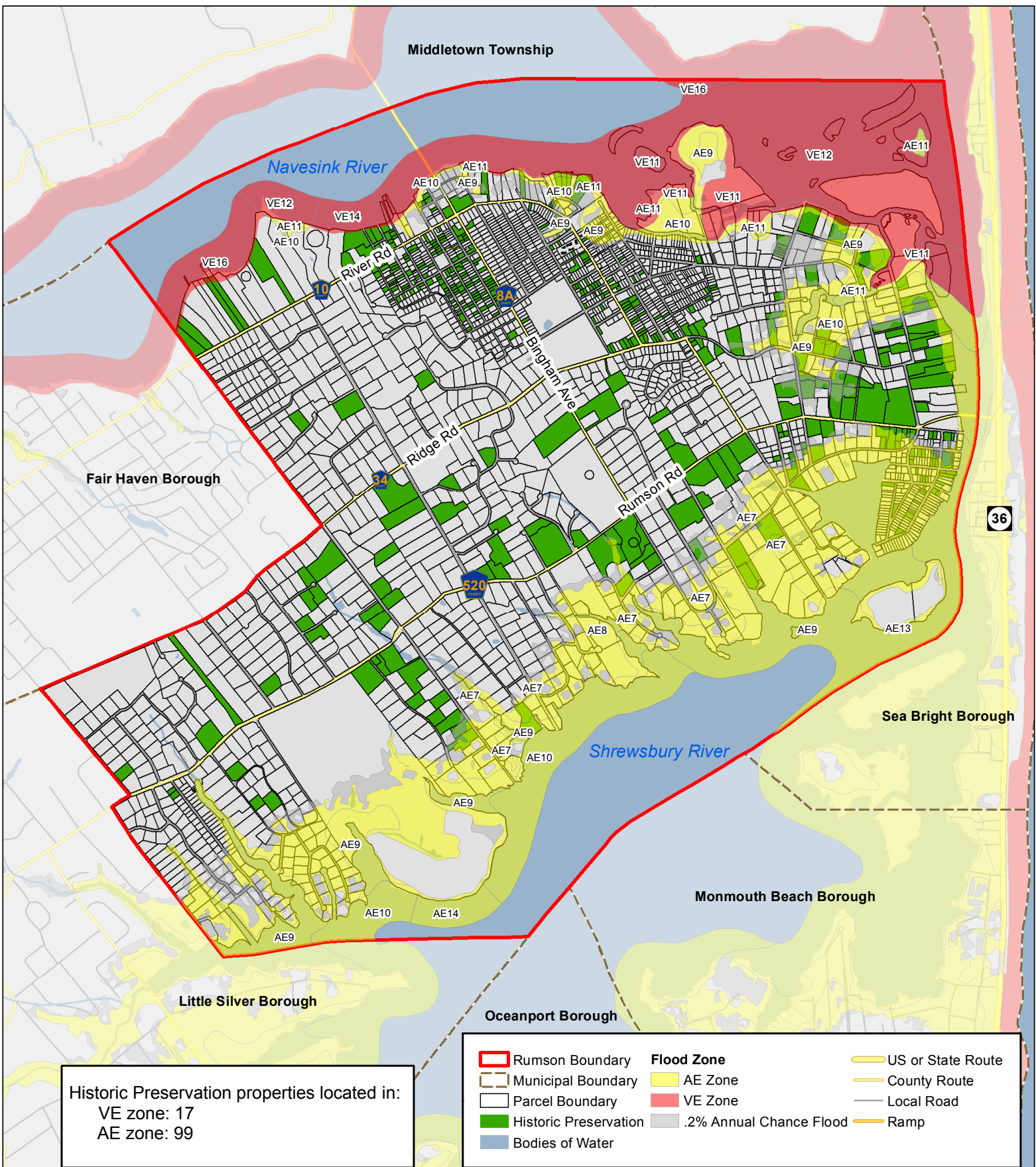
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**2014 Master Plan Reexamination Report
 Zoning Map
 Borough of Rumson
 Monmouth County, New Jersey**



Appendix D: Historic Properties



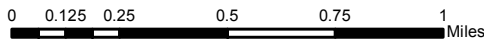


Historic Preservation properties located in:
 VE zone: 17
 AE zone: 99

| | | |
|-----------------------|-------------------------|-------------------|
| Rumson Boundary | Flood Zone | US or State Route |
| Municipal Boundary | AE Zone | County Route |
| Parcel Boundary | VE Zone | Local Road |
| Historic Preservation | .2% Annual Chance Flood | Ramp |
| Bodies of Water | | |



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 Source: NJDEP; NJDOT; NJGIN; Monmouth County; Borough of Rumson
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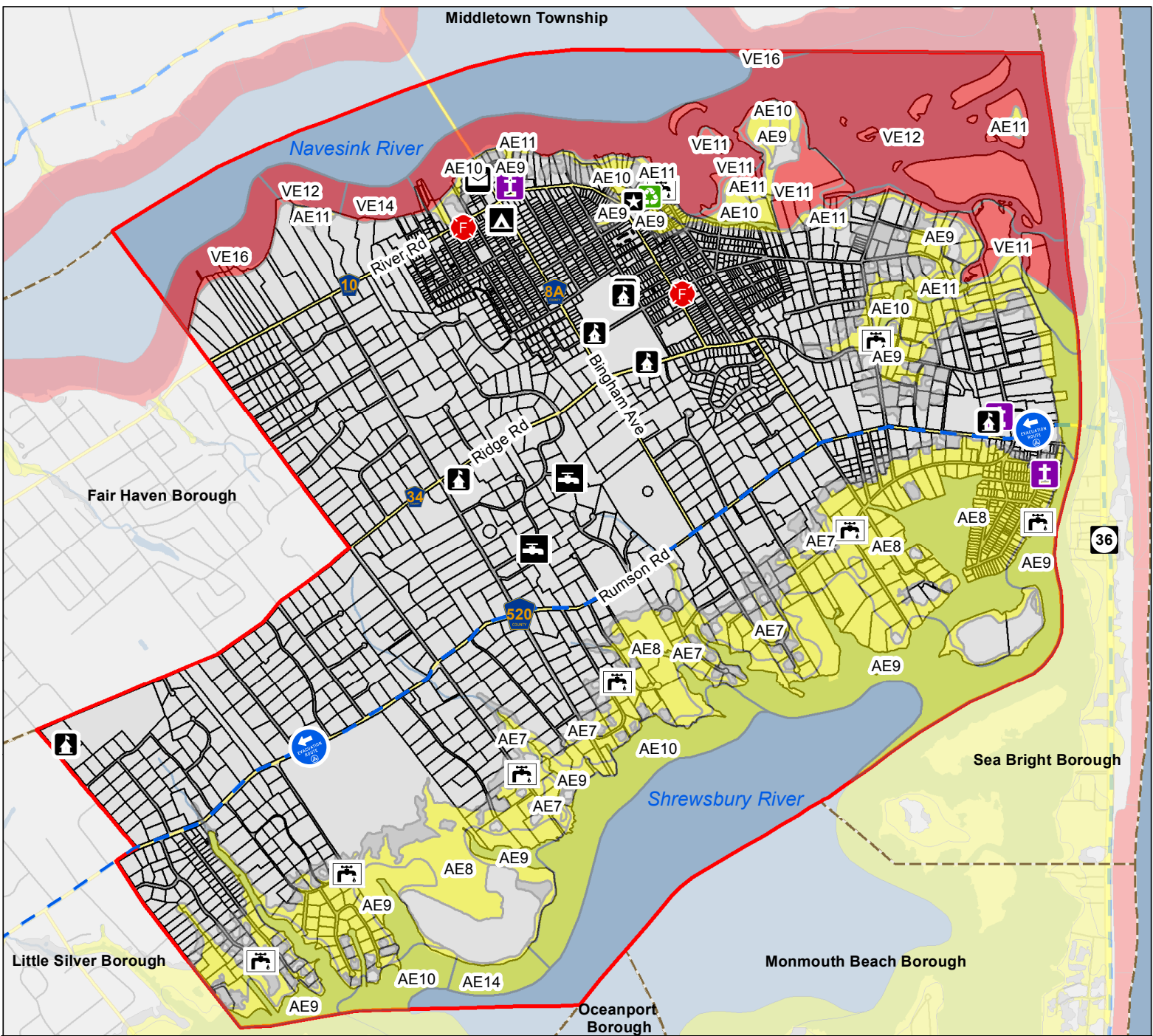
2014 Master Plan Reexamination Report Historic Preservation Properties Borough of Rumson Monmouth County, New Jersey



NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

Appendix E: Community Facilities and Flood Hazard Areas





| | | | | |
|----------------------------------|---|-------------------------|--------------------|-----------------------------|
| Post Office | Schools | Flood Zone | Rumson Boundary | Designated Evacuation Route |
| Borough Hall & Police Department | Church | AE Zone | Municipal Boundary | US or State Route |
| Fire Station | Pump Station Undamaged During Hurricane Sandy | VE Zone | Parcel Boundary | County Route |
| DPW Garage / Recycling Center | Pump Station Damaged During Hurricane Sandy | .2% Annual Chance Flood | Bodies of Water | Local Road |
| Bingham Hall Comfort Station | | | | Ramp |


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0 0.125 0.25 0.5 0.75 1 Miles

Community Facilities & Flood Hazard Areas Borough of Rumson Monmouth County, New Jersey

Prepared by: JAC, 2/25/2015
 Source: NJDEP; NJDOT; NJGIN; Borough of Rumson; FEMA
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NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.