EXPANDED RAIL CORRIDOR LAND USE STUDY



October 2026
FINAL

DOVER/KENT COUNTY MPO
METROPOLITAN PLANNING ORGANIZATION

DelDOT

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METROPOLITAN PLANNING ORGANIZATION
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RESOLUTION

THE DOVER KENT COUNTY METROPOLITAN ORGANIZATION (DKMPO)
APPROVAL OF THE EXPANDED RAIL LAND USE STUDY

WHEREAS, the Dover Kent Metropolitan Planning Organization (DKMPO) has been designated by the Governor of Delaware as the Metropolitan Planning Organization for Kent County, Delaware, and is responsible for carrying out the transportation planning process in the Kent County Urbanized Areas;

WHEREAS, the purpose of the MPO is to provide a forum for state and local officials and the public to discuss transportation issues and reach a consensus on specific transportation plans, programs, and projects;

WHEREAS, the USDOT relies on each MPO to make sure transportation projects that use federal funds are the products of a continuing, comprehensive, and cooperative planning process;

WHEREAS, the USDOT Fixing America's Surface Transportation (FAST) Act requires DKMPO to maintain a proactive public involvement process that provides complete information, timely public notice, full public access to key decisions, and early and continuing public involvement in developing plans and programs;

WHEREAS, DKMPO, with input from its Public Advisory Committee, Technical Advisory Committee, and Council, has prepared the Expanded Rail Land Use Study;

NOW, THEREFORE, BE IT RESOLVED that on September 2, 2026, the Dover Kent County Metropolitan Planning Organization does hereby adopt the Expanded Rail Land Use Study.

DATE: 2 September 2026

Robin R. Christiansen, Mayor
City of Dover
Chairperson
Dover/Kent County MPO Council

The report reflects the views of the authors, who are responsible for the facts and accuracy of the research. The contents do not necessarily reflect the official view of FHWA, FTA, or DelDOT.

The preparation of this document was financed in part with funds provided by the Federal Government, including the Federal Transit Administration, through the Joint Funding Simplification Program, and the Federal Highway Administration of the United States Department of Transportation.

Dover Kent County MPO is committed to Title VI compliance. Title VI states "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

The MPO has produced a Title VI Plan to guide the assessment of projects for racial and related discrimination. The study will include a written assessment on whether the area of the project is considered an area covered by the Title VI Plan and whether the project will have a negative impact, a positive impact, or no impact.

Preface

Dover Kent MPO is pleased to provide this publication, *Expanded Rail Corridor Land Use Study*. Funded by FHWA, FTA, and DelDOT, this resource is an expansion of the MPO's 2022 rail study, using the same methodology to examine parcels adjacent to the railroad in Southern New Castle and Sussex Counties. The information gathered from this inventory, combined with the additional resources in the study, can then be used to preserve the rail-adjacent parcels for industrial purposes and avoid conflicting uses.

Dover Kent MPO is responsible to ensure existing and future transportation projects are continuing, cooperative, and comprehensive and as such, appreciates continued support from FHWA, FTA, DelDOT, and our local MPO partners in order to ensure transportation policy information is shared. We are pleased to acknowledge the following collaborators on this project:

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Cover photo courtesy of Gary Pancavage.

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Safe System Approach

Safety is the primary concern of Dover Kent MPO. This objective informs each of the MPO's regular tasks, including interaction with DelDOT and municipalities, public outreach and education, and the completion of studies. Dover Kent MPO, DelDOT, and other Delaware agencies follow a "Safe System Approach" to transportation safety, which addresses several different aspects of the transportation network rather than focusing on a single aspect. The Safe System Approach is part of the national strategy known as "Toward Zero Deaths," which looks at the entire transportation system with the goal of eventually reducing the number of annual roadway deaths to zero.[1]



Figure 1: A graphic depicting the Safe System Approach, with additional elements used by DelDOT. Source: Delaware Department of Transportation (DelDOT).

The Safe System Approach uses six key principles to understand the serious issue of traffic fatalities in the United States:

- Deaths and serious injuries are unacceptable
- Humans make mistakes
- Humans are vulnerable
- Responsibility is shared
- Safety is proactive
- Redundancy is crucial

The Safe System Approach also uses five elements that must be addressed simultaneously to improve roadway safety and work toward zero traffic fatalities:

- Safe Road Users
- Safe Vehicles
- Safe Speeds
- Safe Roads
- Post-Crash Care
- Safer Land Use (DelDOT additional element)

[1] "Zero Deaths and Safe System." Federal Highway Administration (FHWA). https://highways.dot.gov/safety/zero-deaths.

In 2023, Dover Kent MPO was awarded funding to complete a Comprehensive Safety Action Plan under the USDOT FHWA Safe Streets and Roads for All (SS4A) Grant Program. This award was part of the FY2023 grant cycle. The *Kent County Safety Action Plan* was completed and approved in June of 2025; it highlights the most critical transportation safety needs in Kent County, namely the locations that are found to be part of the High Injury Network (HIN) and the tools that may be used to alleviate the safety concerns at these locations. The findings can then be used to pursue Implementation Grants, which are also under the SS4A Grant Program. The safety countermeasures included in the *Safety Action Plan* are relevant to improving transportation safety not just in Kent County but throughout the State of Delaware. SS4A is a program that utilizes the Safe System Approach to address all aspects of the transportation system.[2]

The goal of the Safe System Approach is to achieve an all-encompassing approach to transportation safety. This includes safety along active rail corridors, which is one of the primary purposes of this study. Dover Kent MPO strongly considered the safety needs of parcels adjacent to active rail corridors when working on this study, and the MPO encourages the stakeholders referenced in the study to use the same considerations going forward.

[2] *Kent County Safety Action Plan*. Dover/Kent County MPO, 2025. https://doverkentmpo.delaware.gov/files/2025/06/Kent-County-Safety-Action-Plan-FINAL-June-2025.pdf.

Introduction

The topic of rail corridor preservation is often overlooked in land use planning, though it is an incredibly important one. Incompatible uses, particularly residential uses, have the potential to block access to the rail while also leading to land use conflicts such as safety issues and unwanted noise. This pattern has been observed in Delaware as well as other parts of the United States. However, there are steps that can be taken to preserve parcels adjacent to the rail; by doing so, municipal and county governments can avoid land use conflicts and enhance the economic benefits of the existing rail.

Dover Kent MPO's first exploration of this topic was the 2018 *Rail Zoning Study*.[3] This document provided a summary of recent development along the rail, and it offered five recommendations for preserving rail access and allowing municipalities to meet their rail-related goals. A StoryMap was also included with the document to summarize its findings.

The second of these was the 2022 *Rail Corridor Land Use Study*,[4] which was sponsored by Kent Economic Partnership with the goal of identifying parcels of land in Kent County that could be used for rail-supported industrial purposes. The study consisted of a full list of parcels along the rail, a map series in a "tile" format, and an interactive web-based map. It has led to additional conversations regarding the importance of rail corridor preservation, and it has been showcased at Delaware's semiannual freight summit and other events.

The 2026 *Expanded Rail Corridor Land Use Study* is the latest of Dover Kent MPO's efforts to highlight this topic. Through discussions with stakeholders, it was found that there was a need for a thorough analysis of rail-adjacent parcels throughout the State of Delaware, particularly south of the C&D Canal, where undeveloped land is more common. Therefore, with support from the Delaware Department of Transportation (DelDOT), Dover Kent MPO took on an expanded version of its parcel analysis from the 2022 study, using essentially the same criteria as before, but applying it to Sussex County and lower New Castle County. The bulk of the study is found in the appendices, with Appendix A consisting of the list of parcels, and Appendix B consisting of the map series. Updated policy recommendations are also included to reflect the importance of the topic.

[3] *Dover/Kent County Metropolitan Planning Organization Rail Zoning Study*. Dover Kent MPO (2018). https://doverkentmpo.delaware.gov/files/2018/11/Final-Rail-Study-November-14-NOV-18-FINAL-version.pdf.
[4] *Rail Corridor Land Use Study*. Dover Kent MPO (2022). https://doverkentmpo.delaware.gov/files/2023/01/Rail-Corridor-Land-Use-Study-Final-September-2022.pdf.

Study Area

Expanding upon the 2022 study, this latest study examines the parcels of land adjacent to the rail corridor in New Castle County and Sussex County, Delaware. The New Castle County portion of the analysis includes one primary segment, which extends northward from Clayton and continues as far as the Chesapeake & Delaware (C&D) Canal. The Sussex County portion of the analysis includes two primary segments, the first extending southward from Greenwood and continuing as far as Delmar, and the second extending southward from Milford and continuing as far as Selbyville. All three of these primary segments have secondary connections that are included in the analysis.

The reason the analysis stops at the C&D Canal is because north of this location, there are far fewer parcels available due to land along the rail being largely developed. Ultimately it was decided that only the southern portion of New Castle County should be studied, as there are still undeveloped parcels in this area. By contrast, all of Sussex County was analyzed, as the county has many undeveloped parcels but is also experiencing rapid population growth and residential development. The end result of this work, when combined with the 2022 study, is a complete inventory of parcels available for rail-supported industrial use in Delaware south of the C&D Canal.

Existing Conditions

Rail freight is used in Delaware to transport raw materials, natural resources, agricultural products, and other materials. Due to its ability to carry large quantities of goods, often directly to their destination, the railroad is noted for being a vital part of the energy, agricultural, chemical, and construction sectors in the state.[5] The primary rail corridors in Delaware are operated by Delmarva Central Railroad Company (DCR), a subsidiary of Carload Express. The track is owned by Norfolk Southern. The complete corridor extends from Porter, Delaware south to Hallwood, Virginia, and from Harrington, Delaware to Frankford, Delaware.[6] These are the main segments of the corridor.

Several interchanges exist along the railroad, connecting trains with other rail corridors. For example, two locations in Delaware (Townsend and Seaford) serve as interchanges with the Maryland and Delaware Railroad Company (MDDE), providing a freight connection between

[5] *Delaware State Freight Plan*. Delaware Department of Transportation (DelDOT) (2022). https://deldot.gov/Business/freight/pdfs/2024/Delaware%20State%20Freight%20Plan%20-%20Full.pdf.
[6] "Delmarva Central Railroad." Carload Express. https://www.carloadexpress.com/delmarva-central-railroad.

Delaware and the Eastern Shore of Maryland. There are also several branches in Sussex County, Delaware, that extend eastward from Ellendale, Georgetown, and Millsboro.

The freight industry plays an essential role in the economy of the Delmarva Peninsula, and railroads are one of the most important pieces of the regional freight network. At the same time, parts of Delaware are experiencing significant population growth, and residential neighborhoods are frequently being built along the rail in order to accommodate the influx of people. This increases the likelihood of land use conflicts, including noise pollution, trespassing, trains crashing into pedestrians or vehicles, loss of life or property damage in the event of a derailment, and dangerous spills in residential areas. This situation also has the potential to reduce the availability of land adjacent to the rail, which negatively impacts the industries that depend on rail access, and could even lead to the railroads losing their economic viability. Rail-adjacent land is a finite resource that is increasingly hard to come by, and its conversion to residential use is one of the most pressing concerns for rail stakeholders on the Delmarva Peninsula.

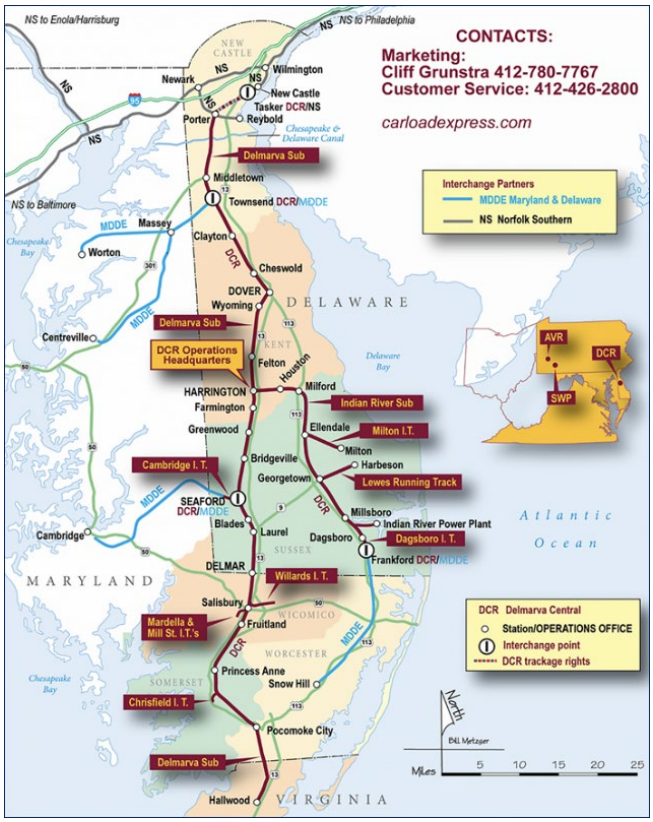


Figure 2: A map of the Delmarva Central Railroad tracks in Delaware and the Eastern Shore of Maryland. Source: Carload Express (web archive) (link).

Note that freight land use preservation is listed in the 2022 *Delaware State Freight Plan* as a goal for achieving economic vitality in Delaware's freight industry. It specifically refers to preserving critical infrastructure and freight-oriented land uses in key freight or rail corridors. If successfully implemented, freight land use preservation can help minimize residential encroachments and reduce conflicts between the freight industry and communities. The *Delaware State Freight Plan* is in the process of being updated and is expected to be completed sometime in 2026.

Although the benefits of rail as part of the freight industry are not the focus of this study, they are worth summarizing. First and foremost, rail can streamline the transporting of goods and reduce the impact on the surrounding roadways and the environment. In Delaware in particular, the rail is mostly used to carry bulk goods such as stone, gravel, sand, and grain; these items are referred

to in the *Delaware State Freight Plan* as "high-tonnage commodities" due to their leading contributions to the state's freight economy by tonnage. The rail is most economically efficient when it is carrying heavy goods such as these. Each rail car is estimated to carry the same amount of goods carried by four freight trucks. Therefore, by utilizing rail for bulk cargo, heavy trucks are removed from local roadways, reducing traffic and road damage. Rail freight is also on average four times more fuel-efficient than truck freight, which means the increased use of railroads for freight purposes also has environmental benefits.[7] Finally, trains are able to bypass traffic along the road, significantly increasing the speed of delivery. It is important that municipalities recognize the many benefits of the rail and ensure these corridors are not made obsolete by the encroachment of incompatible uses.

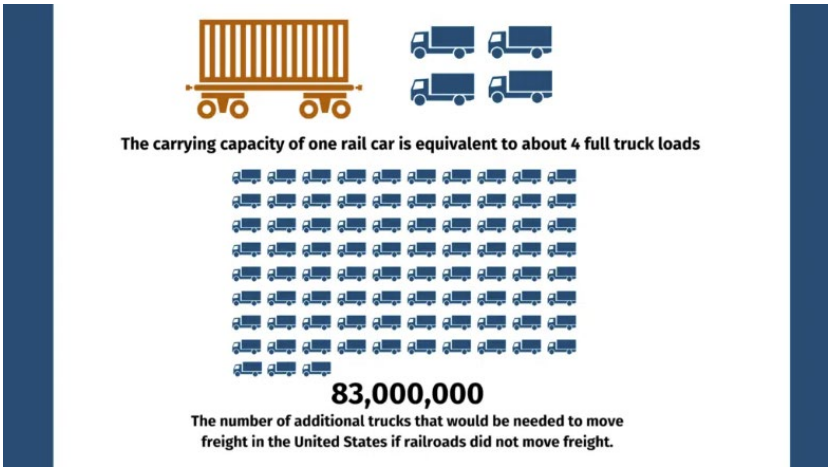


Figure 3: A graphic depicting the comparison in carrying capacity between rail cars and freight trucks. Source: RSI Logistics (link).

At the time of this study's completion, a potential merger between Union Pacific and Norfolk Southern is being discussed. If this were to happen, Union Pacific would acquire Norfolk Southern and take on ownership of the tracks, including the Delmarva Central Railroad corridor. This merger has not yet been approved by the U.S. Surface Transportation Board.

As a final note, although passenger rail was once used extensively in Delaware, this is no longer the case. However, passenger rail in Delaware is currently being investigated as part of the Corridor Identification and Development (CID) Program via the Federal Railroad Administration (FRA). The proposed line, if completed, would extend from Wilmington, Delaware, to a city on Maryland's Eastern Shore such as Salisbury or Berlin, stopping in Dover and other municipalities.[8] The project is known as the Diamond State Line, and the studying of its possibilities is an ongoing process.

[7] "Rail Relationships: A quick look at best practices for planning and development near freight train operations." American Planning Association (APA) (2017). https://www.planning.org/planning/2017/apr/railrelationships/.
[8] "Corridor Identification & Development Program" (StoryMap). Federal Railroad Administration (FRA). https://storymaps.arcgis.com/stories/e1f1bd55cfad489a859cc8905d0dad16.

Explanation of Process

Parcel Analysis

As with the previous study, Dover Kent MPO began this analysis by highlighting all parcels adjacent to the rail corridor within the study area. The next step was to thoroughly examine each of the parcels and determine whether they should be omitted from the list; based on certain criteria making the parcel impractical for rail-supported industrial use.

Dover Kent MPO applied the following principles to exclude certain parcels from the list:

- Parcels that are smaller than seven (7) acres or that cannot be combined with adjacent parcels
- Highly impacted with wetlands or other environmental concerns
- Parcels that are preserved in some manner (public lands, state parks or forests, etc.)
- Parcel shape configuration, and a lack of frontage along the rail
- Lack of existing roadways leading to parcel
- Residential "Open Space" and various stand-alone residential properties



Figure 4: Schiff Farms in Harrington, which utilizes a rail spur and grain silos in its operations. This property serves as a local example of rail-supported industrial uses. Photo courtesy of Gary Pancavage.

Parcels at least seven (7) acres in size with adequate rail frontage were included in the analysis. Those smaller than seven (7) acres were typically excluded. Note that in some instances, smaller parcels were included if there appeared to be a possibility of combining them with adjacent parcels. This follows a similar approach to the previous study, though the opportunity to merge parcels was not the primary focus.

Note that municipal Comprehensive Plans and the land use listed within the plans were used to analyze each parcel and understand its viability for rail-supported industrial use. If the corresponding zoning and land use categories were not suitable for rail-supported industrial use, the parcel was not automatically excluded; however, this means the parcel is less likely to be utilized for that purpose. By contrast, a parcel that has already been subdivided for residential use was considered unsuitable and was excluded from the list.

While parcels in the Aglands Preservation program were initially excluded from the final list of viable parcels, following conversations with stakeholders, Dover Kent MPO ultimately decided to include them in the list of parcels and in the map series. A parcel enrolled in the Aglands Preservation program would generally not be suitable for rail-supported industrial use. However, stakeholders may still be interested in the location of such parcels, as they might meet other relevant criteria such as acreage, road access, and adequate rail frontage. Additionally, this program's allowable uses may be expanded in the future so that the program is more accommodating to such uses. Parcels enrolled in the Aglands Preservation program are identified in the spreadsheets in Appendix A of the study. The extent of agricultural easements is shown in the interactive map and in the map series in Appendix B of the study. Note that parcels preserved through other means, such as state parks and forests, are excluded from the final list.

All parcels contained within this study may or may not require zoning changes. Should such changes be required, it would then be necessary to hold public hearings of the applicable jurisdiction, where applications could be approved or denied. Site plans may be required for certain uses and additional public hearings may be required depending on the permitted use within the zoning classification. Dover Kent MPO has made an attempt in all good faith to reflect those parcels with a possible rail/freight use.

Some parcels, particularly in Sussex County, are classified as "split zoning," which means they have more than one zoning category (e.g., "Agricultural Residential" and "Commercial"). These are identified in the interactive map with a unique symbology. Split zoning was not one of the criteria for exclusion, though the viability of a split-zoned parcel will vary with each instance.

Many of the parcels contain drainage ditches, some of which are classified as wetlands. For the purposes of this study, parcels with a large percentage of wetland extent are not viable for industrial development, though in some cases parcels with a fewer number of drainage ditches may still be suited for this purpose.

List of Parcels

Appendix A includes a list of the parcels that were considered for this study. This list is divided into two parts: Part 1 is a list of all parcels along the rail prior to inclusion or exclusion based on the criteria outlined above; Part 2 is a list of parcels that meet the criteria outlined above.

In lower New Castle County, 29 linear miles of track were reviewed; these tracks pass through two (2) different municipalities. The analysis began with approximately 360 parcels. After reviewing the parcels and excluding those that did not meet the selection criteria, a total of 76 parcels remained.

In Sussex County, 78 linear miles of track were reviewed; these tracks pass through 13 different municipalities. The analysis began with approximately 1,288 parcels. After reviewing the parcels and excluding those that did not meet the selection criteria, a total of 270 parcels remained.

Topics such as zoning categories, residential development, and viability for rail uses are discussed in the body of this study. The list of parcels can be found in Appendix A.

Map Series

As with the previous study, this document contains a map series that provides a close-up view of the rail-adjacent parcels within the study area. The maps are provided in a "tile" format, with the letter of the tile indicating east-west orientation and the number of the tile indicating north-south orientation. (For example, Tile #C-1 is the northernmost tile in lower New Castle County, whereas Tile #E-10 is the southernmost tile.)

Information provided in each tile includes the generalized zoning of each parcel, the location of parcels in relation to the railroad and nearby roads, the location of wetlands and agricultural easements, and other relevant topics. The number provided within each parcel corresponds with the number used in the full parcel list in Appendix A of the study.

A dynamic web-based map was created to display the parcels from the map series. It includes the parcels for lower New Castle County, Kent County, and Sussex County. This map can be accessed using the following link:

- **https://experience.arcgis.com/experience/603133f517314b909b5c2ae6c2c3029c**

Stakeholder Engagement

Unlike most studies completed by Dover Kent MPO, this study did not require considerable public outreach, as it primarily consists of GIS analysis of the existing conditions and an inventory of the available parcels. Most of the engagement carried out by the MPO was with stakeholder groups, who were able to provide input on the process and share relevant data. Organizations that were part of these discussions included DelDOT Planning, New Castle County, Sussex County, Carload Express (Delmarva Central Railroad), the Delaware Farm Bureau, the Delmarva Freight Working Group, and others. The individuals who contributed to this study are listed in the preface of the document.

At the time of the study's completion, several statewide transportation plans were being updated, including the *Delaware State Rail Plan*, which had not been updated since 2011, and the *Delaware State Freight Plan*. Dover Kent MPO has provided the findings of the *Expanded Rail*

Corridor Land Use Study to DelDOT for inclusion in these plans, particularly the policy recommendations.

Title VI Considerations

During the research process, MPO staff considered the adverse effects of rail-adjacent housing on the people living in these homes. Historically as well as in the present day, residences located close to the railroad tracks have often been occupied by those who cannot afford to live elsewhere. This puts disadvantaged families at an increased risk of being struck by a train, as well as increased exposure to air pollution, noise pollution, rail vibrations, and other harmful effects. Due to the disproportionate impacts on these families, it is important that building rail-adjacent housing be avoided whenever possible. For existing rail-adjacent housing as well as new housing that is ultimately approved, substantial setbacks, buffers, and other measures are necessary to reduce conflicts and improve the health and safety of residents. More information on these topics is available in the study's narrative and appendices.

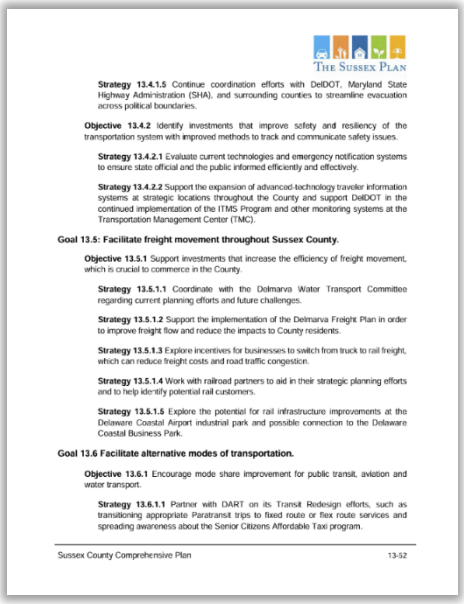
For more information on disadvantaged communities in Delaware, please refer to the DelDOT Equity Analysis Tool.[9] For more information on Environmental Justice and Non-Discrimination, please refer to the MPO's website.[10]

[9] "DelDOT Equity Analysis Tool." Delaware Department of Transportation (DelDOT). https://resiliency-deldot.hub.arcgis.com/pages/equity-in-transportation.
[10] "Dover/Kent County MPO." Dover Kent MPO. https://doverkentmpo.delaware.gov/.

Relevant Comprehensive Plans

Comprehensive Plan Overview

The Comprehensive Land Use Plan is a document designed to guide the future action of a community. It provides a vision for the future, with long-range goals and objectives for all activities that affect the local government. The Plan includes guidance on how to make decisions on public and private land development proposals, the expenditure of public funds, availability of tax policy (tax incentives), cooperative efforts and issues of pressing concerns, such as farmland preservation or the rehabilitation of older neighborhoods.


THE SUSSEX PLAN

Strategy 13.4.1.5 Continue coordination efforts with DelDOT, Maryland State Highway Administration (SHA), and surrounding counties to streamline evacuation across political boundaries.

Objective 13.4.2 Identify investments that improve safety and resiliency of the transportation system with improved methods to track and communicate safety issues.

Strategy 13.4.2.1 Evaluate current technologies and emergency notification systems to ensure state official and the public informed efficiently and effectively.

Strategy 13.4.2.2 Support the expansion of advanced-technology traveler information systems at strategic locations throughout the County and support DelDOT in the continued implementation of the ITMS Program and other monitoring systems at the Transportation Management Center (TMC).

Goal 13.5: Facilitate freight movement throughout Sussex County.

Objective 13.5.1 Support investments that increase the efficiency of freight movement, which is crucial to commerce in the County.

Strategy 13.5.1.1 Coordinate with the Delmarva Water Transport Committee regarding current planning efforts and future challenges.

Strategy 13.5.1.2 Support the implementation of the Delmarva Freight Plan in order to improve freight flow and reduce the impacts to County residents.

Strategy 13.5.1.3 Explore incentives for businesses to switch from truck to rail freight, which can reduce freight costs and road traffic congestion.

Strategy 13.5.1.4 Work with railroad partners to aid in their strategic planning efforts and to help identify potential rail customers.

Strategy 13.5.1.5 Explore the potential for rail infrastructure improvements at the Delaware Coastal Airport industrial park and possible connection to the Delaware Coastal Business Park.

Goal 13.6 Facilitate alternative modes of transportation.

Objective 13.6.1 Encourage mode share improvement for public transit, aviation and water transport.

Strategy 13.6.1.1 Partner with DART on its Transit Redesign efforts, such as transitioning appropriate Paratransit trips to fixed route or flex route services and spreading awareness about the Senior Citizens Affordable Taxi program.

Sussex County Comprehensive Plan 13-52

Figure 5: A page from the Sussex County Comprehensive Plan, which lists strategies for enhancing freight movement and improving connections to the railroad. Source: Sussex County (link).

In Delaware, comprehensive plan requirements are codified in Titles 22 and 9 in the Delaware State Code. Title 22 requires, "at least every five years a municipality shall review its adopted comprehensive plan to determine if its provisions are still relevant given changing conditions in the municipality or in the surrounding areas. The adopted comprehensive plan shall be revised, updated and amended as necessary, and readopted at least every ten years."[11] Delaware requires a municipality have a Certified Comprehensive Plan to be allowed to annex properties into the municipality and apply the local subdivision, building, and zoning codes.

This section of the study includes an analysis of each of the relevant comprehensive plans, using the same approach that was utilized in the previous study. The reason for reviewing these plans is to develop a complete understanding of municipal goals regarding rail freight and its role within the town. If a plan were to include specific goals and considerable language on these topics, it would suggest that the town is interested in preserving the rail-adjacent land and encouraging rail-supported industrial uses in compatible locations. Conversely, a lack of such language means the town is unlikely to take further action. The plan might also depict land use and zoning categories adjacent to the rail corridor that are incompatible with rail activity, which can lead to conflicting uses. A comprehensive plan is the first step in working towards municipal goals, which is why these topics should not be omitted from the document. A total of 18 plans from 16 municipalities and two (2) counties were

[11] 22 DE Code § 702. Delaware Code (2025). https://delcode.delaware.gov/title22/c007/index.html.

reviewed. The Kent County comprehensive plans were reviewed as part of the previously completed study.

Findings

The most notable issue noticed by MPO staff is the disconnect between the stated goals of a municipality and the annexation and future land use plans outlined in the comprehensive plan. Some of the reviewed comprehensive plans acknowledge the economic importance of the rail, and a few list rail-supported economic development within their community goals, though not as many as there should be. Almost none of the plans carry through these stated goals to their policies and recommendations for the future, and none of them address the topic of rail corridor preservation, via zoning or other means.

Furthermore, even if a municipality claims to be in favor of rail-supported economic development, the comprehensive plan's annexation and future land use maps are often a direct contradiction to this stated goal, as they actively encourage residential development along the rail. In a general sense, residential and agricultural uses are the predominant uses on rail-adjacent parcels. If a comprehensive plan depicts rail-adjacent parcels as residential areas in future land use maps, this sets up the parcels for residential zoning and land use categories when annexation takes place.

Question: What happens when the goals in a municipality's comprehensive plan regarding rail corridor preservation do not align with the zoning and future land use maps?

Dover Kent MPO strongly discourages municipalities from using rail-adjacent parcels for residential growth, and in order to prevent this, more suitable future land uses need to be depicted in the comprehensive plan. The language in the documents, particularly in the community goals, should also reflect this.

Of the three (3) comprehensive plans from New Castle County, all three (3) of them mention the importance of the railroad in some capacity, though none of them go into very much detail about preserving the rail corridor, zoning for rail-supported industrial uses, or adding new rail infrastructure and related facilities to the corridor. The New Castle County plan offers plenty of details on the economic importance of rail networks in Delaware and warns of the risks facing these networks such as sea level rise; however, long-term goals to preserve the rail corridor are not included.

Of the 15 comprehensive plans from Sussex County, the majority of them make general references to the railroad's importance but do not go beyond this level of detail. Rail corridor preservation is typically not mentioned in the municipal goals, nor is rail-related economic

development. Nine (9) of these plans (more than half of the reviewed plans) hardly mention the rail beyond its historical context and current ownership, often referring to the rail in the past tense, and not connecting the municipality itself to the rail's ongoing regional importance. In some cases the language in the plans encourages the use of the parcels adjacent to the rail for residential development, vehicle parking, or other non-rail-related purposes. Perhaps most prominent are the maps designating future land use of rail-adjacent parcels outside of the municipality for residential purposes, which appears to be common in the comprehensive plans from Sussex County.

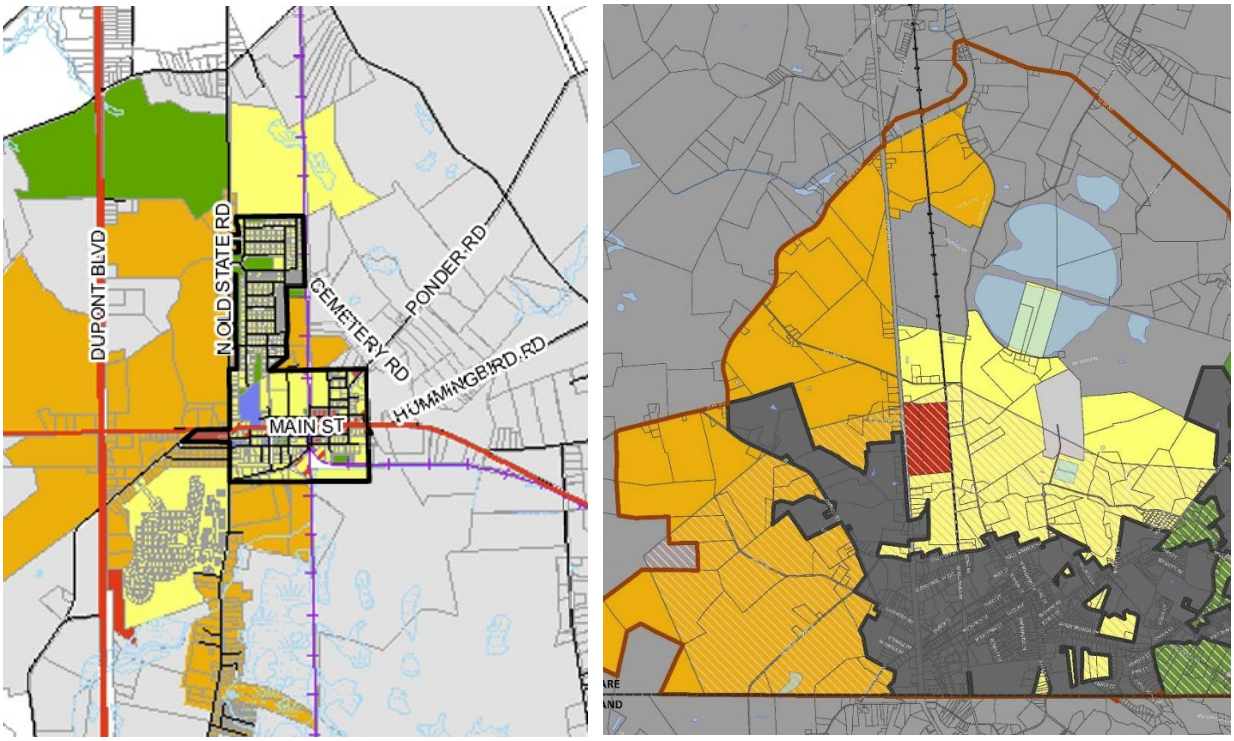


Figure 6 (l): The potential annexation map from the Ellendale comprehensive plan. The purple lines represent the railroad right-of-way. Yellow-shaded areas represent future residential parcels, and orange-shaded areas represent future mixed residential/commercial parcels. Source: Ellendale Comprehensive Plan (2021) (link).

Figure 7 (r): The potential annexation map from the Selbyville comprehensive plan. The black vertical line represents the railroad right-of-way. Yellow-shaded areas represent future residential parcels, and orange-shaded areas represent future mixed residential/commercial parcels. Source: Selbyville Comprehensive Plan (2020) (link).

Only two (2) of the Sussex County plans go into considerable detail regarding rail corridor preservation and rail-supported industrial uses. Sussex County's 2019 comprehensive plan lays out specific strategies such as exploring rail infrastructure improvements and utilizing incentives

for businesses to switch from truck to rail freight. These strategies are part of the County's larger goal of facilitating freight movement.[12]

Similarly, the Town of Bridgeville's 2018 comprehensive plan references the importance of the rail in the town's agricultural industry. The plan encourages using the northern part of town for more industry-intensive purposes, concentrating commercial and industrial activities along the railroad tracks, and strengthening connections between the railroad and the agricultural sector.[13]

Although the above two examples are a good start for discussing these topics, there is still more that can be said in a comprehensive plan about how a municipality can make the most of a rail corridor within its boundaries. Further details should be provided in the goals listed in municipal comprehensive plans as the plans are updated. Appendix C provides a summary of each of the three (3) reviewed comprehensive plans for New Castle County and the 15 reviewed comprehensive plans for Sussex County; these findings can be used to guide the narrative of updated plans.

[12] *Sussex County Comprehensive Plan*. Sussex County, Delaware (2019). https://delplan.org/wp-content/Plans/Sussex%20County/Sussex%20County%202019%20%20Comprehensive%20Plan_final.pdf.
[13] *One Bridgeville: Comprehensive Plan*. Town of Bridgeville (2018). https://delplan.org/wp-content/Plans/Bridgeville/2018%20Town%20of%20Bridgeville%20final%20plan.pdf.

Analysis of Zoning Categories

Each municipality and county has its own zoning categories that determine the permitted uses of a parcel. Dover Kent MPO combined these individual categories into broad categories such as Residential, Industrial, and Manufacturing, and then tallied the total number of parcels within each category. The total acreage was also tallied. This was done to demonstrate the prevalence of Residential zoning along the rail (specifically residential-friendly categories such as Suburban Reserve in New Castle County and Agricultural Residential in Sussex County), and also to show the alarming shortage of Industrial-zoned parcels.

Summary Tables

Summary Table 1 below lists the broad zoning categories in New Castle County, the number of rail-adjacent parcels using each zoning category, and the acreage within each category:

SUMMARY TABLE 1 – General Zoning Categories (Lower New Castle County)				
Zoning	Count	Percent of Total Parcels	Acres	Percent of Total Acres
Suburban Reserve	58	76.3%	3,810.8 +/-	93.4%
Manufacturing	7	9.2%	106.3 +/-	2.6%
Single Family Residential	6	7.9%	94.99 +/-	2.3%
Industrial	5	6.6%	70.1 +/-	1.7%
Total	76		4,082.1 +/-	

Summary Table 2 below lists the broad zoning categories in Sussex County, the number of rail-adjacent parcels using each zoning category, and the acreage within each category:

SUMMARY TABLE 2 – General Zoning Categories (Sussex County)				
Zoning	Count	Percent of Total Parcels	Acres	Percent of Total Acres
Agricultural Residential	193	72.3%	9,927.7 +/-	77.4%
Industrial	25	9.4%	1,062.19 +/-	8.2%
Residential	19	7.1%	603.32 +/-	4.7%

Split-Zoned	19	7.1%	862.67 +/-	6.7%
Business	5	1.9%	91.89 +/-	0.7%
High Density Residential	2	0.7%	164.06 +/-	1.3%
Manufacturing	2	0.7%	92.67 +/-	0.7%
Commercial	1	0.4%	7.7 +/-	0.1%
Town Center	1	0.4%	9.43 +/-	0.1%
Total	267		12,821.63 +/-	

Findings

The Suburban Reserve zoning category in New Castle County is described as "intended to be served by sewer and water in the future and to be reserved to Suburban (S) when sewer construction is imminent."[14] It is intended to encourage agricultural uses until sewer and water can be installed and suburban development can take place, meaning the land is not off-limits to residential use, but instead is reserved for such purposes. A total of 76.3% of parcels along the rail in lower New Castle County are zoned Suburban Reserve, consisting of approximately 93.4% of the total acreage along the rail. By contrast, Manufacturing and Industrial zoning make up only 2.6% and 1.7% of the total acreage, respectively. This leaves virtually no space for rail-supported industrial uses in New Castle County south of the C&D Canal, with nearly all the land designated for future suburban development.

One of the most important takeaways from the data from Sussex County is that "Agricultural Residential" zoning (referred to as "AR-1" and "AR-2") is very prevalent along the rail corridor, particularly in the unincorporated areas of the county. Through an analysis of the rail-adjacent parcels throughout Sussex County, it was found that AR-zoned parcels make up about 72.3% of the total number of parcels, and about 77.4% of the total acreage. This does not count the "split-zoned" parcels that might also accommodate residential development. "Industrial" zoning is the next most prevalent category, though it only accounts for about 9.4% of the total number of parcels and about 8.2% of the total acreage. Manufacturing areas are less than 1% of the total acreage.

[14] "New Castle County's Zoning Districts." New Castle County. https://www.newcastlede.gov/DocumentCenter/View/1149/Zoning-Districts-Information-PDF.

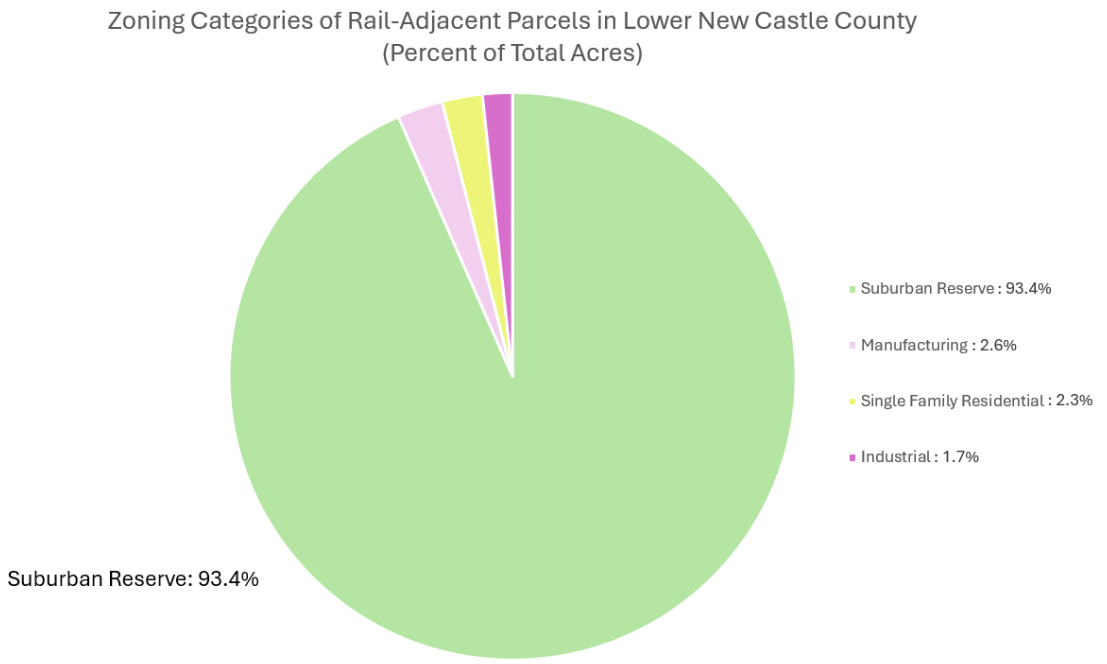


Figure 8: Zoning categories of rail-adjacent parcels in lower New Castle County, with the percent of total acres.

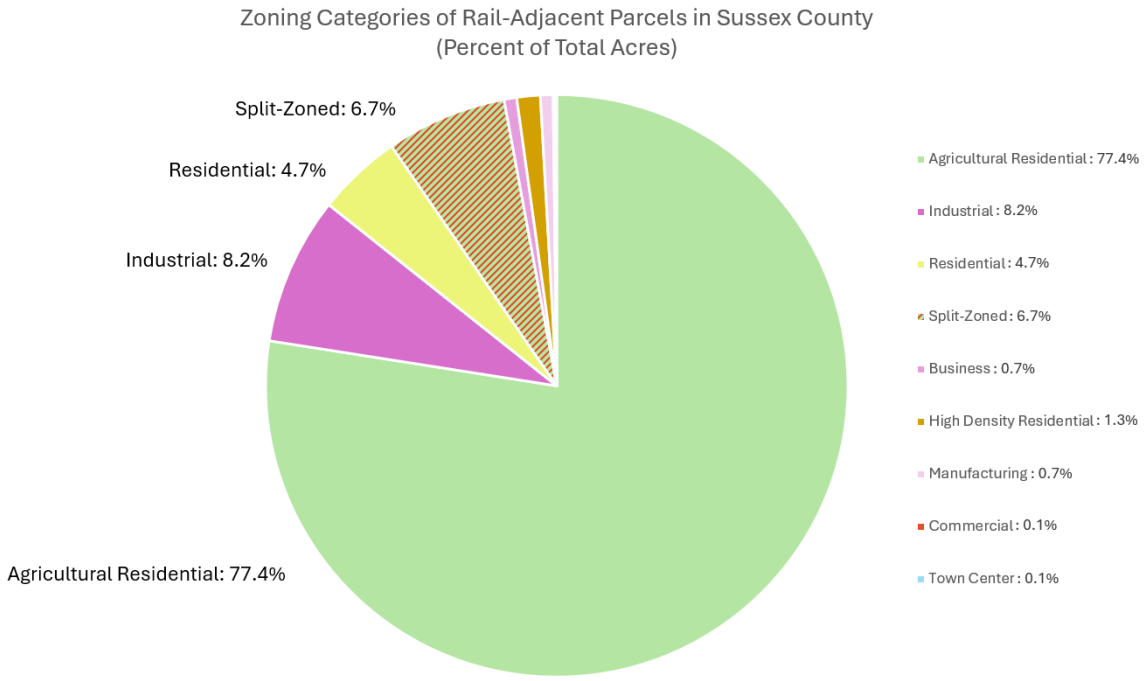


Figure 9: Zoning categories of rail-adjacent parcels in Sussex County, with the percent of total acres.

The Sussex County Comprehensive Plan contains the following information on zoning in low-density, agricultural areas:

> "As of 2018, all lands designated in this Plan as Low Density Areas are currently zoned AR-1. Under that zoning designation, single family detached homes are permitted at two homes per acre on lots containing a minimum of half acre if the tract connects to central sewers. Where on-site septic systems are used, single-family detached homes are permitted on minimum 3/4-acre lots. AR-1 zoning regulations also permit an average of two homes per acre where a cluster-style site plan is used, and a portion of the tract is preserved in permanent open space."[15]

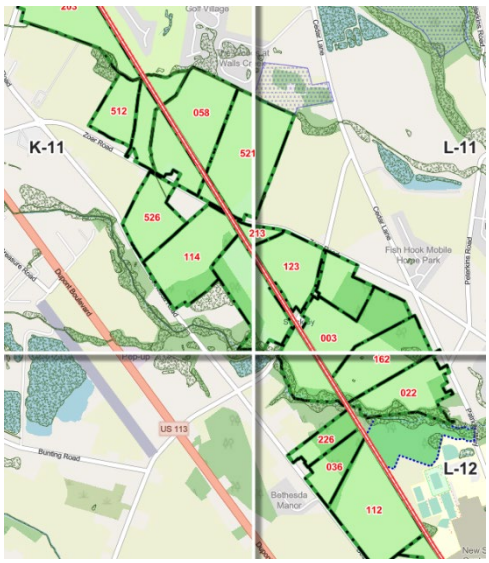


Figure 10: The part of Sussex County in between Georgetown and Millsboro, which highlights the prevalence of "AR" zoning (displayed in green).

Although the AR zoning categories are primarily intended to "provide for a full range of agricultural activities and to protect agricultural lands," the Sussex County Code notes that they also "provide for low-density single-family residential development, together with such churches, recreational facilities and accessory uses as may be necessary or are normally compatible with residential surroundings."[16] While specifically "Residential" zoned parcels are not as prevalent as "Agricultural Residential" in Sussex County, Residential is still one of the more common categories, at 4.7% of the total acreage. This, combined with the overwhelming presence of Agricultural Residential areas and the use of Residential zoning within split-zoned parcels, means over 85% of land within rail-adjacent parcels in Sussex County is already zoned to allow for residential purposes. This increases the likelihood of residential development along the rail, which will lead to incompatible uses.

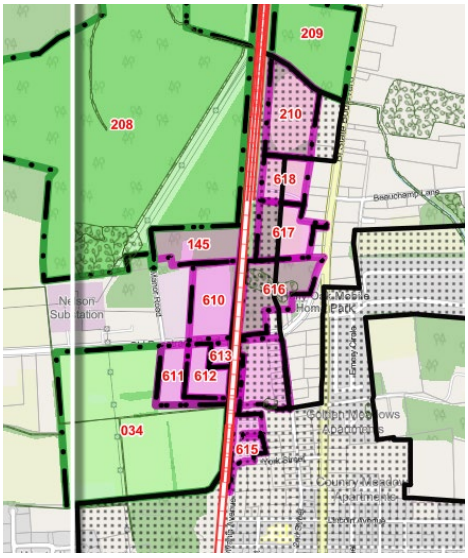


Figure 11: The Town of Delmar, one of the municipalities that has assigned Industrial zoning categories (displayed in pink) to rail-adjacent parcels.

[15] *Sussex County Comprehensive Plan*. Sussex County, Delaware (2019). https://delplan.org/wp-content/Plans/Sussex%20County/Sussex%20County%202019%20%20Comprehensive%20Plan_final.pdf#page=46.
[16] Sussex County Code, Part II, § 115, Article IV AR-1 and AR-2 Agricultural Residential Districts. Sussex County, Delaware. https://ecode360.com/8883922.

A few municipalities have taken steps to assign Industrial zoning categories to parcels along the railroad. One example is the Town of Delmar, which uses Industrial zoning for the parcels adjacent to the railroad on the west side of town. This corresponds with the zoning used by Sussex County immediately outside of Delmar in the same location, which together creates a strong network of Industrial-zoned parcels with rail access. Today these parcels are home to steel and concrete businesses and a water treatment facility, though some of the parcels appear undeveloped.

Question: If current zoning categories are not sufficient for preserving rail frontage, which steps can be taken, both within the zoning categories and through other means, to achieve this goal?

Note that in Dover Kent MPO's ongoing review of site plans and rezoning applications within Kent County, several instances of incompatible Business and Commercial uses have emerged. This has occurred in the form of proposed rezonings and site plans for uses that would not be compatible with the railroad. (A proposed church is the most recent example in the Kent County review process.) It is worth bringing this up to call attention to the fact that incompatible uses are not solely at the hands of residential development.

Subdivision Development Plan Activity Along the Rail Corridor

As part of the process of completing the *Expanded Rail Corridor Land Use Study*, Dover Kent MPO staff conducted a review of each of the rail corridors in lower New Castle County and in Sussex County for significant land use changes adjoining or immediately adjacent to the existing railroad right-of-way. This analysis was conducted on a map tile basis following the project map grid. Significant residential development is noted in the tables below, and a description, location, and total acreage of each development are provided.

Note that Dover Kent MPO is not a part of the formal review process for New Castle or Sussex Counties, which is why GIS layers were needed to locate subdivisions. However, there might be subdivisions in these counties that the MPO was not aware of and did not include.

Summary Tables

Summary Table 3 below lists significant lands in lower New Castle County that have been converted to residential uses (or that are in process):

SUMMARY TABLE 3 – Lands Converted to Residential Use (Lower New Castle County)			
Map Tile #	Parcl ID #	Comments	Acres
C-1	003 004 Total	These parcels are no longer viable Rail Supported Land Use Parcels as they form a new recorded residential subdivision known as "Monarch". Phase I construction of Monarch appears to have been initiated in the summer of 2025 located along Lorewood Grove Road.	69.47 +/- 42.88 +/- 112.35 +/-
C-6	044	Although this Parcel has not been planned for development at this time, it is important to point out that the 2022 Comprehensive Plan for Townsend identifies this Parcel as priority Annexation Parcel to be utilized for Residential Development purposes. This Parcel adjoins the westerly side of the Railroad right-of-way for a distance of approximately 2,593 Feet+/-.	144.61 +/-
C-6	046	Similar to Parcel 044, the 2022 Townsend Comprehensive Plan designates this Parcel as a priority Annexation Parcel to be utilized for Residential Development purposes. This Parcel adjoins the easterly side of the Railroad right-of-way for a distance of approximately 2,467 Feet+/-.	21.9+/-
TOTAL ACREAGE CONVERTED OR PLANNED…… 278.86 +/-			

Summary Table 4 below lists significant lands in Sussex County that have been converted to residential uses (or that are in process):

SUMMARY TABLE 4 – Lands Converted to Residential Use (Sussex County)			
Map Tile #	Parcl ID #	Comments	Acres
I-4	160	New residential subdivision adjoining Parcel 160 and located on the north side of Fleatown Road. Subdivision site construction appears to begin in 2016. First dwelling appears on 2018 aerial. Slow build-out.	32.10 +/-
I-5	Adjoins 021	Sizable annexations into Town of Ellendale for residential subdivision adjoining railroad right-of-way for a distance of 3,175 FT+/-. First annexation and development phase appears in 2015. An additional 80 Acres+/- was annexed after the adoption of the 2021 Comp Plan and subsequently subdivided for residential use. Majority of platted lots remain as vacant on 2024 aerial. The development is named “Ingram Village”.	80.00 +/-
M-13	Adjoins 017	A recent townhouse community was built in 2020 along the southwesterly side of the railroad right-of-way in Millsboro, across Godwin Street from 017.	14.51 +/-
M-14 & M-13	Northwest of 195	A new apartment complex built along the northeasterly side of the railroad right-of-way in Millsboro known as “Foster Commons” was completed in 2024. The property was in agriculture prior to development.	8.82 +/-
M-14	Across from 095	New single family residential development bordering the railroad on the southwesterly side began construction in 2020 and appears to be complete in 2025. The development is named “Westtown Village”.	20.24 +/-
N-15	Adjoins 250	New residential subdivision adjoins westerly side of railroad right-of-way, south of and adjoining Parcel 250. Also adjoins a railroad spur that serves the adjoining property to the southeast. Appears to begin site construction in 2025. The development is located in Dagsboro and is named “Highlands of Peppers Creek”.	34.14 +/-
TOTAL ACREAGE CONVERTED OR PLANNED……189.81 +/-			

Findings

The quantity of rail-adjacent land in New Castle County south of the Chesapeake & Delaware Canal that has been planned and approved for residential uses over the past five (5) years is relatively small. In the years prior to 2020, and most notably during the period from 2000 to 2020, there have been sizeable conversions of land adjoining the railroad in both Middletown and Townsend from agriculture to residential development. For example, around 2000 the town of Townsend quadrupled in size from roughly 111 acres +/- to 578 acres +/- through a series of annexations. More than one third of the newly annexed land (194.39 acres +/-) fronted along both sides of the railroad right-of-way. Today this is the location of the Townsend Village II subdivision that has approximately 3,375 LF+/- of frontage on both the easterly and westerly right-of-way of the railroad. This preference for residential expansion along the railroad continues with the more recent annexations listed in Table 3 above.

In Sussex County, as shown in Table 4 above, the quantity of land fronting on the railroad that has been converted to residential uses over the past five (5) years, or that is currently under construction for residential uses, is relatively small, even smaller than the total acreage lost in New Castle County. However, there are several examples of residential development currently taking place or recently being completed along the rail corridor, such as Foster Commons in Millsboro, Highlands of Peppers Creek in Dagsboro, and one of the most egregious examples, Ingram Village in Ellendale. Furthermore, Dover Kent MPO has noticed that several towns have favored the utilization of rail frontage lands for residential purposes and have expressed these intentions within their certified Comprehensive Plans.

According to data from the Delaware Population Consortium, Sussex County's population grew at a rate of approximately 13.6% between 2020 and 2024, as compared to New Castle County's growth rate of 3.0% and Kent County's growth rate of 5.7% during the same timeframe.[17] This rapid rate of



Figure 12: The Ingram Village subdivision in Ellendale, which consists of 308 residential units. Approximately 3,175 feet +/- of rail frontage is taken up for residential uses.

[17] "Annual Projections from the Delaware Population Consortium." Delaware Population Consortium (State of Delaware). https://stateplanning.delaware.gov/demography/dpc-projection-data.shtml.



Figure 13: The Townsend Village II subdivision in Townsend, which was built in the late 2000s and early 2010s. The neighborhood borders the railroad tracks on both the east and west sides.

population growth, combined with the fact that Sussex County does not have its own Metropolitan Planning Organization to assist with smart growth measures and informed planning, heightens the need for better coordination between jurisdictions and more stringent measures to prevent residential growth along the rail in southern Delaware.

Moving forward, Dover Kent MPO would urge towns to avoid this tendency to allow rail-fronting lands to be converted to residential communities (or other incompatible uses), and to give preference to reserving such lands for uses that may utilize and benefit from rail transportation. Preserving rail-adjacent land for industrial purposes is the best way to prevent incompatible uses and reduce conflict. However, if residential development does take place along the rail, there are measures that can be taken to reduce the negative consequences, which include noise pollution and safety concerns. These measures, such as adequate buffer zones, noise barriers, and changes to municipal zoning codes and development requirements, are covered in Appendices E and F of the study.

Viability of Parcels for Rail Uses

Summary Tables

During the process of reviewing parcels adjacent to the railroad, it was realized by Dover Kent MPO staff that while many parcels meet the size, frontage, and site-access criteria, they were often found to have existing uses that would not allow for rail-supported industrial uses. Some of these existing uses, such as recreation fields or golf courses, do not have enough permanent structures to significantly prevent rail uses on the site. Other uses, such as residential areas, utilities, and cemeteries, would be far more challenging to convert, and in some cases it would not be logical to do so. This section lists the identified parcels in which rail uses may be possible in the future if certain conditions are met, but not in their current state.

Summary Table 5 below lists other significant parcels adjoining the rail in New Castle County that may or may not be viable for freight rail support use due to specific concerns indicated:

SUMMARY TABLE 5 – Viability of Specific Parcels Adjoining Rail (Lower New Castle County)			
Map Tile #	**Parcl ID #**	**Comments**	**Acres**
C-1	007	The location of Crystal Run Elementary School built in 2023 in the Appoquinimink School District.	142.70 +/-
C-2	002	Developed as a manufactured home park known as Mount Pleasant Mobile Home Park.	8.92 +/-
C-3	077	Dedicated Community Open Space for the Pleasanton Subdivision.	64.13 +/-
C-3	01	Straddles Marl Pit Road, owned by New Castle County, and is the location of a planned Spray Irrigation System as part of the NCC Waterwater Treatment and Disposal process.	461.02 +/-
C-4	071	Owned by the town of Middletown and is the location of Wastewater Management Basins associated with The Legends Residential Community and Frog Hollow Golf Course.	21.13 +/-
C-4	067	Straddles Cedar Lane Road and is the location of an existing cemetery known as “Forest Cemetery”.	15.84 +/-
C-4	062	The location of Middletown-Odessa-Townsend Senior Center.	2.11 +/-
C-6	078	The dedicated Community Open Space for the residential development known as Townsend Village II East. This parcel is mostly wooded and	16.54 +/-

		contains a large SWM Basin that serves as stormwater treatment for the residential subdivision. It also adjoins a place of worship.	
TOTAL ACREAGE IN QUESTION……732.39 +/-			

Summary Table 6 below lists other significant parcels in Sussex County adjoining the rail that may or may not be viable for freight rail support use due to specific concerns indicated:

SUMMARY TABLE 6 – Viability of Specific Parcels Adjoining Rail (Sussex County)			
Map Tile #	**Parcl ID #**	**Comments**	**Acres**
E-14	063	The location of the Laurel Little League Complex.	16.08 +/-
E-18	191	Triangular shaped Rail Spurs shown on Map (4.67 Acres +/-) appear to have been removed. Site is heavily wooded.	18.58 +/-
K-11	002	The location of Sussex Pines Golf Course, and is surrounded by existing single-family dwellings. For this reason, it most likely is not a viable redevelopment parcel for freight rail support uses.	107.48 +/-
L-12	108 & 166	These parcels are developed in a wooded, low density residential configuration and appear to comprise a mobile home park. Given existing use, these may not be viable redevelopment parcels.	25.48 +/- 16.68+/-
L-13 & M-13	223	Bifurcated by the new Millsboro Bypass and involves a highway overpass, and realigned Fox Run Road. There are remnant parcels on either side of the new road, but probably not viable for freight rail supported uses.	16.30 +/-
N-14	221	This parcel was developed in 2024 into a PV Solar Power Generating Park.	28.96 +/-
N-16 & O-16	010 & 150	There is a wooded parcel situated between Parcels 010 and 150 that is at the transition from single railroad track to double tracks.	2.11 +/-
K-9	048	These parcels are all located along the northerly right of way of the railroad. It is important to note	47.53 +/-

L-9	173, 310, 007, 115, 305, 307, 053 324	that this portion of the Lewes-Georgetown Rail Trail will be co-located with the rail line and will be situated parallel with and along the north side of the rail. With the Trail running between the railroad and the parcels, some of these parcels may not be best suited for freight rail support uses.	130.75 +/-
M-8	011,183		35.00 +/-
M-9			51.39 +/-
TOTAL ACREAGE IN QUESTION……496.34 +/-			

Findings

The parcels identified above have frontage on the railroad right-of-way and are of sufficient area to accommodate rail supported uses. However, some of these parcels are encumbered with existing uses, or are in proximity to existing or planned uses, that may be incompatible with or in conflict with rail supported land uses. It is important, therefore, to consider each of these parcels against the larger list of parcels that are less encumbered and to exercise planning discretion. While the parcels listed above cannot and should not be categorically excluded from any future consideration, at the present time, in light of existing land uses and the abundance of better suited lands, it may be prudent to remove some or all of the referenced parcels from immediate consideration.

The full list of parcels is available in Appendix A of this study, and the map series is available in Appendix B.

Summary and Recommendations

The following are the findings and recommendations that were derived from the parcel analysis and research process. Strategies for preserving rail corridors include comprehensive planning, zoning, land use, municipal codes such as buffers and design requirements, overlay districts, noise abatement, Transit-Oriented Development (TOD), and corridor preservation incentives. Footnotes are provided for details on each topic. Additional information on rail-positive zoning and sample policies can be found in the appendices of this study.

Note that the freight planning checklists included in this section and in Appendix E of the study are meant to guide municipalities and other stakeholders in their efforts towards rail corridor preservation and compatible use. The checklist on the next page lists each of the recommendations covered in the study and which entities would be responsible for them. The other tables in this section can help municipalities determine whether a specific use is appropriate for a rail-adjacent parcel. Finally, the table at the end of Appendix E gives an overview of each of the items that should be addressed when a new residential or commercial use is being added next to an active rail corridor. It is recommended that jurisdictions follow these checklists if they want to make the most of their access to the railroad, preserve the corridor for future use, and avoid potential conflicts and safety issues.

Policy Recommendations	Municipal Governments	County Governments	State of Delaware	Relevant Stakeholders
Update comprehensive plan to include rail corridor preservation as a specific, measurable local goal	✓	✓	✓	Municipalities, Counties, OSPC, DelDOT and other State agencies
Update comprehensive plan to address land use of rail-adjacent parcels and avoid designating parcels for incompatible uses	✓	✓	✓	Municipalities, Counties, OSPC, DelDOT and other State agencies
Expand allowable conditional uses within Agricultural Residential or similar zoning to permit rail-supported industrial uses	✓	✓		Municipalities, Counties
Introduce local ordinances that create more stringent setbacks, buffer zones, and other local requirements for rail-adjacent development	✓	✓		Municipalities, Counties
Introduce local ordinances that require specific improvements such as barriers, trees, and noise abatement measures	✓	✓		Municipalities, Counties
Include Transit Oriented Development (TOD) in the local and State planning process, and set aside land for future TOD projects	✓	✓	✓	Municipalities, Counties, DelDOT and other State agencies
Adopt freight planning checklists to go along with local and State ordinances and ensure site plans consider the needs of freight rail	✓	✓	✓	Municipalities, Counties, DelDOT and other State agencies
Adopt a statewide Rail Corridor Overlay Zone to regulate rail-adjacent development and prevent incompatible uses			✓	DelDOT and other State agencies, Delaware General Assembly
Develop a rail corridor preservation program at the State level, or expand the existing Aglands Preservation program to permit rail-supported industrial uses			✓	DelDOT and other State agencies, Delaware General Assembly
Revise the State Strategies program to include a category for rail corridor preservation and corresponding language within the document			✓	OSPC, DelDOT and other State agencies, Delaware General Assembly
Collaborate with stakeholders as a task force or working group that will determine the best policy solutions for rail corridor preservation	✓	✓	✓	Municipalities, Counties, DelDOT and other State agencies

Note that Delaware's Metropolitan Planning Organizations, the Delmarva Freight Working Group, and the University of Delaware Institute for Public Administration (IPA) are all potential partners in each of these tasks. Furthermore, while the Office of State Planning Coordination (OSPC) should take on the leading role in strengthening municipal comprehensive plans and updating the State Strategies program, OSPC staff should also be included in the above tasks.
State agencies involved in land use, site plan review, comprehensive plan updates, freight, and economic development are potential partners in the above tasks. Elected officials may also be included in the conversation.

Updating Comprehensive Plans

Rail corridor preservation begins with municipal and county **comprehensive plans**, documents that outline the desired zoning, land use, and overarching goals of a community. **Land use** categories refer to the general use of a property (both current and future uses), whereas **zoning** categories refer to the specific purpose of a property and determine which uses are permitted.[18] If a comprehensive plan designates a parcel adjacent to the rail for uses other than residential, then single-family houses will typically not be built there. By contrast, a parcel adjacent to the rail that is given a "Residential" land use is more likely to be used for housing. Note that parcels just outside the municipal boundaries may be included in a municipality's **annexation and future land use plans**, meaning they could also be designated for a specific use such as Residential or Industrial, even if they are not currently within the municipal boundaries.

It is Dover Kent MPO's recommendation that when a comprehensive plan is being updated, the opportunity should be used to reassess the zoning and land use of parcels along the rail within the municipality. The future land use of the parcels could be changed to a category that accommodates rail-supported industrial uses, which will help encourage these activities. At minimum the parcels should have a land use other than residential; doing so will reduce the likelihood of conflicting uses and improve safety in the community.

At the same time, the comprehensive plan should include **short-term and long-term goals** referring to rail corridor preservation. These goals should be specific, measurable, and within the capabilities of the municipality. The Summary and Recommendations section of this study includes relevant tasks that could be incorporated into the goals of a comprehensive plan.

Zoning and Land Use

Dover Kent MPO understands the issue of rail land use to be a tiered response. The best-case scenario for a parcel adjacent to the railroad would be rail-supported industrial uses. However, there are cases in which rezoning a parcel for industrial uses would not make sense. For example, the parcel may lie adjacent to existing residential areas, and new industrial uses would adversely affect the people living on these properties. In this case, it would be beneficial to keep the land in its natural state or find agricultural or similar compatible uses. By doing so, there would be fewer conflicts than if the land were used for residential purposes. There might also be existing wetlands, forests, or other natural resources that should not be impacted by development of any kind. Preserving the land through a Federal- or State-level program, such as Delaware's Aglands Preservation program, may be the next step to protecting these natural resources.

[18] "The Comprehensive Planning Process." University of Delaware (UD). https://www.completecommunitiesde.org/comp-plan/.

If residential structures are ultimately built on a parcel that abuts the railroad, there are steps that can be taken to reduce the impact and prevent conflicting uses. However, Dover Kent MPO does not recommend residential uses adjacent to active rail corridors, as the conflicts are too numerous and the safety risks are too great. This is also true for commercial developments and other uses such as schools, churches, hospitals, and athletic facilities. The subsequent pages of this section will provide further details on the topic of municipal codes and their role in managing conflict and reducing negative impacts.

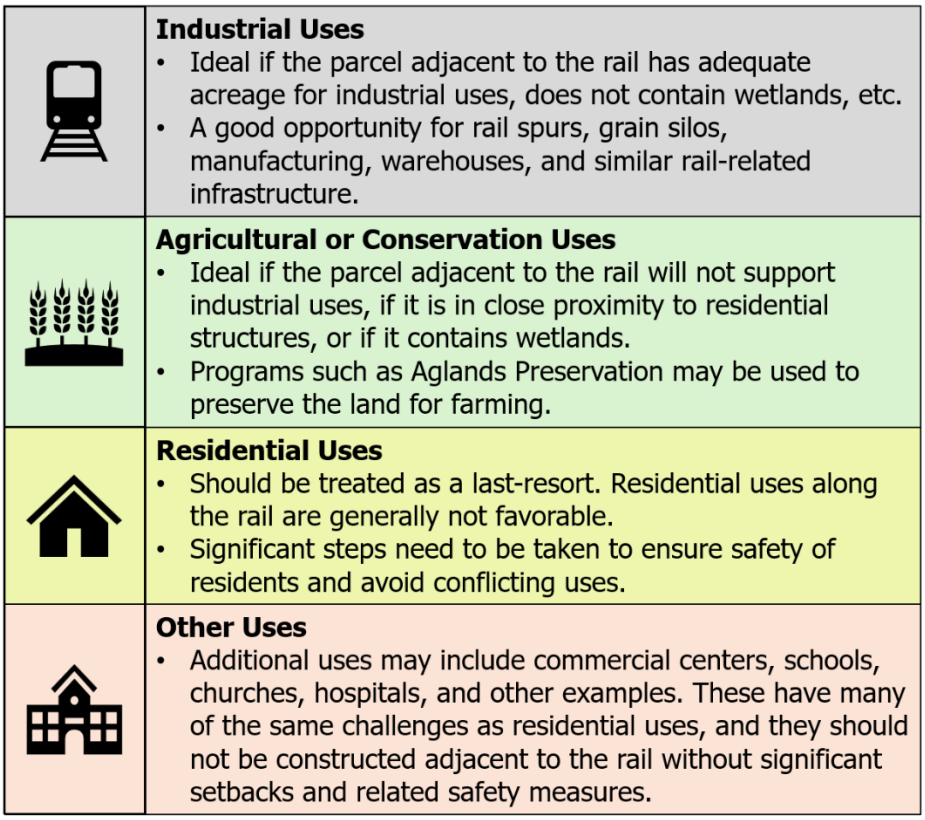


Figure 14: A graphic depicting the tiers of use for rail-adjacent parcels, including industrial, agricultural/conservation, residential, and other uses.

Note that designated land use and zoning categories may not be enough to preserve the corridor. Through the course of this study, it was found that certain commonly used zoning categories (such as "Agricultural Residential" in Sussex County) still allow for residential uses, which makes these parcels vulnerable to residential development despite their proximity to the rail.[19] As another example, the zoning map in the Ellendale comprehensive plan identifies the land around the Ingram Village subdivision as "Single Family Residential". The future land use map

[19] Sussex County Code, Part II, § 115, Article IV AR-1 and AR-2 Agricultural Residential Districts. Sussex County, Delaware. https://ecode360.com/8883922.

reinforces this use, identifying the land as being intended for "Residential" use."[20] As municipalities update their comprehensive plans, they should seriously consider how the uses of these properties are reflected within the document.

Municipalities should also remember that rezoning is not always the most viable solution to preserving a rail corridor. It is most effective when a parcel can be rezoned to match the zoning of its neighbors; for example, the rezoning of a rail-adjacent parcel for Industrial uses is more likely to succeed if it is already surrounded by Industrial parcels. By contrast, "upzoning" an Agricultural Residential parcel in a rural area to an Industrial zoning category would most likely be incompatible with the goals of a municipal or county comprehensive plan, and it might also lead to pushback from residents in the area. Rezoning is only effective when it conforms with the local comprehensive plan and when it is compatible with the surrounding uses.

Conditions of Each Parcel	Industrial Uses	Agricultural/ Conservation	Residential Uses	Other Uses
Is the parcel large enough for rail-supported industrial uses?	✓	✓		
Is the parcel too small for rail-supported industrial uses?		✓	*	*
Does the parcel have adequate rail frontage and access to a nearby road?	✓	✓		
Does the parcel lack the adequate rail frontage, or is it landlocked?		✓	*	*
Is the parcel largely undeveloped or currently used for agricultural purposes?	✓	✓	*	*
Does the parcel contain considerable wetlands?		✓		
Is the parcel preserved in Aglands Preservation?	†	✓		
Are there adjacent uses such as industrial sites and rail spurs that would allow rail-supported industrial uses?	✓	✓		
Are there adjacent uses such as residential properties that are incompatible with industrial uses?		✓	*	*
Is there opportunity for Transit-Oriented Development (TOD) on this parcel in the future?		✓	**	**

† Rail-supported activities are not the stated purpose of the Aglands Preservation program, and parcels enrolled in the program that also have rail siding are rare. However, such uses can be beneficial to the agricultural industry by providing property owners with direct rail access.
* Residential development adjacent to the rail right-of-way is incompatible with the rail in most cases. If residential development is pursued, there should be substantial space between the two uses, and other steps should be taken to protect residents and personal property. This should only be done if the parcel will never be viable for rail uses.
- Note: The same applies to commercial development and other uses such as schools, churches, hospitals, and athletic facilities.

** Transit-Oriented Development (TOD) is a unique situation in which residential and commercial development would be a compatible neighbor to a rail corridor, particularly one that supports passenger rail. However, adequate setbacks, buffers and other safety features would still be needed.

Figure 15: A more detailed checklist showing which uses are compatible with a rail-adjacent parcel, depending on the parcel's conditions. The checklist focuses on industrial, agricultural/conservation, residential, and other uses. This table is a potential tool that municipalities may use to determine whether a specific use is appropriate for a rail-adjacent parcel.

[20] *Ellendale: Come Grow With Us; The 2020 Greater Ellendale Comprehensive Plan*. Town of Ellendale (2020). https://delplan.org/wp-content/Plans/Ellendale/EllendaleCompPlan_Final.pdf.

An example of an unsuccessful rezoning can be found in Kent County. In this instance, which occurred in 2023-2024, the property owners (East Coast Ag Holdings, LLC) sought to add rail siding to their property, which would facilitate the loading of grain. The property owners were informed by Kent County that this would not be permitted on a parcel zoned AC (Agricultural Conservation), and a rezoning would be necessary. The property owners then applied for a rezoning from AC (Agricultural Conservation) to IG (General Industrial) so the parcel could accommodate rail siding and related infrastructure. The Office of State Planning Coordination (OSPC) did not object to the proposal during the Preliminary Land Use Service (PLUS) review in August of 2023, citing the proposed use's low impact on the land and the agricultural benefits.[21] However, upon being reviewed by Kent County Planning staff and the Regional Planning Commission, it was found that the parcel was not identified in the Kent County comprehensive plan for future industrial use, and a rezoning of this sort would conflict with the uses of neighboring parcels. There was also the issue of pushback from residents, who were concerned that more intensive industrial uses would be located on the parcel. The proposal was ultimately denied for these reasons. Following an appeal of the decision and further discussions with Kent County and with the Federal Railroad Administration (FRA), in early 2024 the property owners sought the approval of a conditional use from the Kent County Board of Adjustment. This would allow the property owners to add rail siding without requiring a full rezoning.[22] This application was approved. As a result of the conditional use application and subsequent efforts, the site is now home to rail siding as well as several grain bins for storage.

Question: Within an Agricultural zoning, is the mode of transportation the determinate rather than the actual land use? In other words, is loading and transporting agricultural products an allowable use if you do it by truck but not if you do it by train?

In other cases, when the conditions are right, rezoning can be an effective tool for preserving rail-adjacent land and creating new rail-supported facilities. For example, in 2023, a subsidiary of Mountaire Farms requested the rezoning of a parcel of land in Sussex County north of Bridgeville. At the time the parcel was zoned AR-1 Agricultural Residential. It was proposed that the parcel be rezoned to HI-1 Heavy Industrial to allow the construction of a feed mill, grain storage, and rail access. The rezoning received letters of support from stakeholders, and it was found that changing the zoning to an Industrial category would align with the Sussex County Comprehensive Plan and would support the County's goals of providing new opportunities for

[21] "RE: PLUS Review – 2023-07-03; East Coast Ag Holdings, LLC." Delaware Office of State Planning Coordination (OSPC) (2023). https://stateplanning.delaware.gov/plus/comments/2023-07-03-response.pdf.
[22] "Kent County Board of Adjustment Agenda: February 28, 2024." Kent County, Delaware (2024). https://www.kentcountyde.gov/files/assets/temporary/v/3/pdfs/meeting-agendas-minutes/february-28-2024-boa-agenda.pdf.

the local freight rail industry. As a result of these conditions being met, the rezoning was able to move forward.[23] This parcel can be found in Tile #D-7 of the map series.

These two case studies illustrate the fact that while rezoning a property can help towards corridor preservation and allowing for rail-supported industrial uses, it is not the only tool available. Municipalities should seriously consider **expanding the existing Agricultural zoning categories to include rail activities as a by-right use**, so that they permit rail-supported industrial uses. This would mean property owners could add rail siding and related infrastructure without the project being dependent on a successful rezoning to an Industrial category, which is often challenging to achieve. The Kent County comprehensive plan includes several recommendations in its Land Use and Transportation chapters that are relevant to this topic:

- "Update and expand the uses permitted in the Agricultural Conservation and Agricultural Residential Zoning Districts to support the modern agricultural industry…";
- "Create a new Agricultural Zoning District available to properties outside of the Growth Zone Overlay District in order to permit by-right uses that support agriculture";
- "Preserve and allow for expansion of existing rail facilities for both freight and passenger service, as well as a new intermodal freight yard."[24]

Recommendations such as these should be adopted by all jurisdictions and take shape within their comprehensive plans as specific, measurable goals. By expanding the by-right uses within a zoning category, new opportunities for rail-supported industrial uses will be permitted, which is beneficial to the freight and agricultural industries throughout the state. Note that because Agricultural Residential and similar zoning categories still allow low-density housing, incompatible uses allowed along the rail would need to be addressed separately, such as through setback requirements or an overlay zone.

Setbacks and Buffer Zones

Jurisdictions can take steps beyond their comprehensive plan and zoning regulations to enhance rail corridor preservation. For example, a municipal code or county code can set requirements for parcels adjacent to active rail lines, such as a **minimum setback** from the rail for all built structures. Doing so will reduce the risk of loss of life or property damage in the event of a derailment or other incident. The Kent County Code contains some language on required setbacks for built structures close to the railroad tracks:

[23] "Sussex County Council: Public/Media Packet, March 28, 2023." Sussex County, Delaware (2023). https://sussexcountyde.gov/sites/default/files/packets/SCC.Public.Packet.032823.pdf.
[24] *Kent County Comprehensive Plan*. Kent County, Delaware (2018). https://delplan.org/wp-content/Plans/Kent%20County/2018-Comprehensive-Plan-Adopted-9-11-18-Full-Document-with-Appendices_Revised%20w%20new%20FLU%20map.pdf.

> "Lots adjoining a railroad right-of-way line shall observe a building setback of at least 50 feet from the right-of-way line and shall include an appropriate means of buffering such lots from the railroad lines."[25]

While all jurisdictions should have requirements such as this at the bare minimum, it was found through research of the topic and conversations with stakeholders that a setback of 50 feet is not adequate to protect residential structures. An ordinance such as this also focuses on the back wall of a residential structure, but it does not specify a buffer for other elements of a residential property such as sheds, pools, and decks. If such an approach is taken, Dover Kent MPO recommends utilizing an **unsubdivided setback of at least 150 feet** from the rail right-of-way, along with a **buffer zone** that requires the area between the setback line and the rail right-of-way to remain undeveloped and include a barrier of some kind. The ordinance should also ensure that sheds, pools, and decks are not allowed within the established buffer zone.

More specifically, this could be accomplished via a **"Railroad Right-of-Way Buffer" ordinance**, which would establish design requirements and standards such as building/construction setbacks, buffer design requirements, barriers needed for the property, and other minimum design standards that would come into play when properties that border the railroad right-of-way are being planned for development. Such an ordinance would be similar in form and function to requirements that set up minimum protections for wetlands, stream corridors, water bodies, water supply wellheads, excellent groundwater recharge areas, and Aglands Preservation districts.

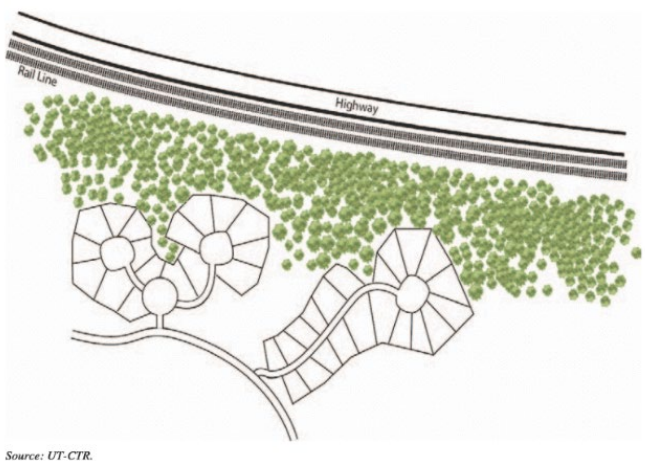


Figure 16: An example of how cluster zoning and a buffer of vegetation can be used to preserve space adjacent to the railroad and separate the railroad from residential uses. Source: UT-CTR; used by the National Cooperative Freight Research Program (NCFRP) (2012) (link).

The open space in between built structures and the rail right-of-way should include **trees**, **earthen berms**, or other types of vegetation or natural barriers. **Walls** and other artificial sound barriers may be appropriate in some instances. These improvements can all be a part of the requirements in the municipal or county code. Pedestrian pathways, while a better use of this space than residential structures, are still a potential safety risk, and they do not provide any buffer against noise pollution or help to separate residential uses from the tracks. If pedestrian

[25] Kent County Code, Part II, § 187, Article XI Design Requirements and Standards. Kent County, Delaware. https://ecode360.com/7601066#7601166.

pathways are added to the space in between houses and the railroad tracks, they should still be a sufficient distance apart and should come with fencing or another physical barrier.

Laws and ordinances regarding railroad safety may be viewed at times as having a negative impact on development. However, in reality, rail corridor preservation can have positive outcomes for all of the involved stakeholders, if done properly. For example, it may be possible to include the unsubdivided area between the rail right-of-way and other uses in a site plan's designated open space. Doing so would benefit residential and commercial developers by giving them more opportunities to meet the local open space requirements. When it comes to residential development, this would also be beneficial to residents of the neighborhood, as the open space could be used for pedestrian pathways and provide residents with more recreation opportunities, and it will create more space that can be used for noise reduction. As mentioned previously, open space also benefits the railroad by providing an increased buffer between uses, as there are no permanent uses within the space. This is important for maintaining safe conditions close to the railroad. Given the myriad of benefits that can take place, it is recommended that rail corridor preservation be treated by municipalities as a goal that will support the residents and businesses of the community, rather than hinder them.

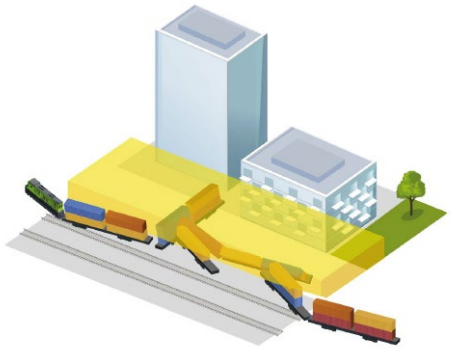


Figure 17: The City of Calgary, Alberta, uses a "safety envelope" to determine the horizontal and vertical impacts of a derailment. Source: City of Calgary; used by the American Planning Association (APA) (2025) (link).

A strategy that is closely tied to vegetation buffers is the use of **cluster zoning** or **cluster development**, which involves increasing the density of a residential development to create more open space in the neighborhood. This open space can then be used to plant trees and establish a substantial buffer between the neighborhood and the railroad tracks or other industrial uses.[26] Although cluster zoning is not always permitted, it is a tool that could be useful if the strategy is allowed within a municipality and if the conditions are right.

Finally, some jurisdictions might consider the **vertical space** adjacent to the railroad tracks as well as the horizontal space. This is most applicable to urban environments where taller buildings and high-density developments are common.[27] Train cars come in varying heights, and the type of train car and the type of goods being transported will determine how widespread the damage

[26] "Zoning Activities Related to Freight Facilities and Corridors." *Preserving and Protecting Freight Infrastructure and Routes*. National Cooperative Freight Research Program (NCFRP) (2012). https://www.nationalacademies.org/read/14650/chapter/9.

[27] *Zoning Practice: Managing Development Along Freight Rail Corridors*. American Planning Association (APA) (2025). https://www.planning.org/publications/document/9303209/.

of a derailment will be, both horizontally and vertically. These potential impacts should be considered when developing local rail policy.

Appendix F provides an example of policy solutions from Calgary, Alberta, which include a **"safety envelope"** approach that manages development within the horizontal and vertical space around the rail right-of-way.[28] Calgary's rail policy documents are a good example of rail policy implementation and its positive impacts on safety within a community.

Rail Corridor Preservation Program

Delaware's Agricultural Lands (Aglands) Preservation Program was established in 1991 as a means of incentivizing the preservation of farmland throughout the state. This is done in two phases. The first phase is applying to enroll a farm property as an Agricultural Preservation District, which is described as "a ten-year, voluntary agreement where landowners agree to continue to use their land for agricultural purposes only." Properties are eligible if they meet requirements specific to the program. Preservation Districts can then be enrolled in the second phase of the program, through which they are eligible to become Agricultural Conservation Easements. According to the program description, "landowners can (if they choose) permanently preserve their farmland by selling its development rights. The ten-year district agreement is then replaced by a permanent agricultural conservation easement on the land."[29]



Figure 18: A combine harvester moving through a crop field. Source: Delaware Department of Agriculture (link).

By enrolling their property in the second phase of the program, property owners are effectively selling their farm's development rights, which ensures the impacts on the property (such as residential development) will be minimized. In addition to the amount earned through this transaction, property owners also benefit in other ways. For example, the unimproved land enrolled in the program is exempt from real estate transfer, county, and school taxes. The goal of the Aglands Preservation Program is to encourage preservation of usable farmland and benefit the property owners at the same time. As a whole it

[28] "Development next to freight rail corridors policy." City of Calgary. https://www.calgary.ca/development/railway-corridors.html.
[29] "Aglands Preservation Program." Delaware Department of Agriculture. https://agriculture.delaware.gov/agland-preservation-planning/the-preservation-program/.

has been a very successful program, and between croplands and forested land, approximately 158,711 acres are currently preserved.[30]

One of the policy recommendations MPO staff discussed was the creation of a new preservation program that focuses on rail-adjacent parcels. This would be set up similarly to the Aglands Preservation Program, but permitted uses within the preserved parcels would include rail-supported industrial uses. If this approach is taken, Dover Kent MPO recommends assembling a task force to research the topic, synthesize the available information, gather stakeholder input, and present findings to the Governor and General Assembly. Potential task force members would include State agencies, counties, municipalities, MPOs, and freight stakeholders. Unlike other policy solutions that use requirements and restrictions, this would be a voluntary program that provides incentives to property owners, and as a result it should generally have less opposition from stakeholders.

> Question: How can rail corridor preservation be tied to the needs of Delaware's agricultural economy so the two issues are no longer viewed as separate or in conflict with one another?

A related approach would be to expand the Aglands Preservation Program's allowable uses so that they include rail-supported industrial uses. While this approach would likely be easier to implement than creating an entirely new preservation program, it would not be specific to incentivizing rail-supported industrial uses, as this is not the primary focus of the Aglands Preservation Program. However, it could be a viable short-term solution, until a new, rail-focused preservation program is established.

Rail Corridor Overlay District

Another approach to rail corridor preservation would be a **"Rail Corridor Overlay District" (RCOD)** or similar **overlay zone** at the State, county, or municipal level. This approach differs from building setbacks in that it uses a zoning category on top of the existing zoning to further clarify where certain uses are permitted. While many jurisdictions use minimum setbacks to regulate development close to the railroad, an overlay zone would reinforce the importance of minimizing incompatible uses within a defined distance from the rail right-of-way.

This strategy has previously been used in Delaware to enact requirements that focus on public safety. For example, the runways of Dover Air Force Base (DAFB) utilize three Accident Potential Zones (APZs) to monitor and limit development within the runway approaches. These three zones, which have varying degrees of accident potential, are given their own unique

[30] "Aglands Preservation and Planning: Maps & Reports." Delaware Department of Agriculture. https://agriculture.delaware.gov/agland-preservation-planning/reports/.

guidelines for permitted uses and allowed density of people. As an extension of DAFB's APZ program, the City of Dover and Kent County both use overlay zones in their respective codes to restrict the construction of schools, residences, and similar facilities within the path of aircraft leaving and arriving at DAFB. Doing so ensures that incompatible uses are not located within the runway approaches and places of high density are not at risk from an aircraft accident. The area for the Dover and Kent County overlay zones is based off the APZ areas.[31] A policy similar to these overlay zones could be implemented to create new requirements close to the railroad.



Figure 19: A map of the Accident Potential Zones (APZs) of Dover Air Force Base. Source: Dover Air Force Base (DAFB) and Delaware Department of Transportation (DelDOT) (link).

Note that this approach would probably be more challenging to implement than changes to zoning regulations or setback requirements. During the research process, MPO staff were referred to *Farmers for Fairness v. Kent County* (2007), a court case that resulted in a proposed overlay district in Kent County being blocked due to its failure to meet the necessary requirements.[32] While the results of this case do not retroactively affect existing overlay zones, it is the understanding of MPO staff and partners that new overlay zones at the municipal or county level would either not be allowed or face significant hurdles.

A possible alternative to the municipal- or county-level overlay zone would be **state-level legislation** that provides a similar purpose. It may be possible for the Delaware Legislature to set a minimum standard to setbacks for rail-adjacent structures. If this were in place, municipalities and counties could either use the same standard, or they could adopt more stringent requirements to meet their unique needs. Although this would not be a true overlay zone or zoning category, it would serve a similar purpose.

[31] *Dover Air Force Base – Compatible Use Plan*. Dover Air Force Base (DAFB) and Delaware Department of Transportation (DelDOT) (2023). https://doverkentmpo.delaware.gov/files/2026/07/Final-Compatible-Use-Plan.pdf.
[32] *Farmers for Fairness v. Kent County*. Delaware Court of Chancery (2007). https://courts.delaware.gov/opinions/(53jt0wzrwpevfsbt1cyjbo21)/download.aspx?ID=91420.

Strategies for State Policies and Spending

Another approach would be for the Delaware Office of State Planning Coordination (OSPC) to incorporate rail corridor preservation into the ***Delaware Strategies for State Policies and Spending***. In this case, areas within a certain distance from active railroads could be categorized as investment levels that are less favorable for residential development. However, there are several issues with this approach. Most importantly, the current *State Strategies* map categorizes the land on and around the rail based on many factors, none of which include rail corridor preservation. Some of this land is located within "Level 1" and "Level 2" areas, which are highly favorable for development, including residential development. By contrast, much of the rail corridor outside of municipal boundaries is located within "Level 4" and "Out-of-Play" areas. These categories are defined as being less desirable for development in general, particularly for residential development, but this also includes commercial and industrial uses. For this approach to have its intended effect, it would be necessary to use the *State Strategies* categories in a way that disincentivizes residential and commercial development in these areas without impacting opportunities for rail-supported industrial use.

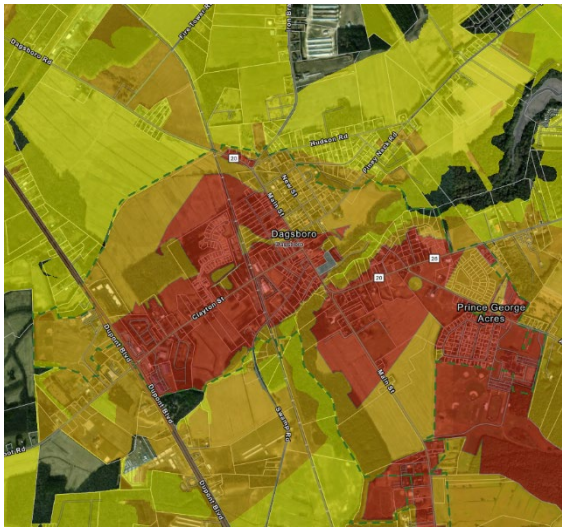


Figure 20: An image from the State Strategies map depicting the area in and around the Town of Dagsboro. The colors indicate the State Strategies level of the property. Source: Delaware Office of State Planning Coordination (OSPC) (link).

It would be useful to have a separate *State Strategies* category that encompasses the existing rail and its surroundings. This category would discourage residential and commercial development but would not discourage rail-supported industrial uses, unless the parcel is also in an "Out-of-Play" area and there would be negative impacts towards wetlands and other natural environments. The 2025 *State Strategies* update does not categorize land based on proximity to the rail, but this should be part of the analysis going forward. There should also be more language in the *State Strategies* document that provides guidance for all types of development along the rail.[33]

[33] "Delaware Strategies for State Policies and Spending." Delaware Office of State Planning Coordination (OSPC) (2025). https://stateplanning.delaware.gov/strategies/index.shtml.

Noise Abatement

Regarding the impact of noise pollution, there are several steps that jurisdictions can take to mitigate noise while still allowing trains to make full use of the rail corridor. As mentioned above, **sound barriers** such as trees, earthen berms, and walls may be added to locations where noise would have a significant negative impact. These barriers are most important for "noise-sensitive uses" such as residential buildings, motels, childcare, schools, playgrounds, athletic facilities, libraries, churches, and hospitals, as well as other uses.[34] However, this solution mostly applies to existing uses that are considered noise-sensitive. New structures within this category should not be located near the railroad tracks in the first place, as they are considered incompatible uses.

Some cities use a policy known as **quiet zones**, which are part of a program run by the Federal Railroad Administration (FRA). Quiet zones are used to determine areas in which train horns are prohibited to avoid adverse impacts. The program also provides alternative means of alerting the public of a train's presence, in order to maintain safe conditions at railroad crossings. Quiet zones are discussed further in Appendix F of the study.[35]

Noise and vibration analysis can be used to determine which areas receive the greatest impact from excess noise from train activity. The results of these measurements can help guide policy decisions and the issuing of building permits. Alternatively, additional noise abatement steps may be required when building within these areas. This could include additional noise and vibration analysis, more stringent building setbacks, and design requirements for buildings such as increased insulation and the soundproofing of walls and windows.

It is also worth noting that some places can be defined as "vibration-sensitive uses," including high-tech industries and buildings not constructed to withstand frequent rail vibrations. Because the vibrations from train activity can have adverse impacts as much as noise, vibration mitigation should be a part of the process. This may involve measuring vibration impacts in the areas around the corridor, constructing new buildings to withstand vibrations, and preventing incompatible uses close to the tracks.[36]

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[34] *Protecting and Preserving Rail Corridors Against Encroachment of Incompatible Uses*. Center for Transportation Research at The University of Texas at Austin (UT-CTR) (2008). https://library.ctr.utexas.edu/ctr-publications/0-5546-1.pdf.

[35] "Mitigation of Conflicts between Freight and Other Land Uses." *Preserving and Protecting Freight Infrastructure and Routes*. National Cooperative Freight Research Program (NCFRP) (2012). https://www.nationalacademies.org/read/14650/chapter/10.

[36] *Zoning Practice: Managing Development Along Freight Rail Corridors*. American Planning Association (APA) (2025). https://www.planning.org/publications/document/9303209/.

Transit-Oriented Development (TOD)

Transit-Oriented Development (TOD) is the concentrating of dense residential and commercial development around public transportation centers, which encourages transit use within the community. Although passenger rail is not currently available for most of the State of Delaware (particularly for central and southern Delaware), this could change in the coming years with the continuation of the Diamond State Line project.[37] Jurisdictions across the country have pursued TOD through their planning efforts and municipal codes to encourage transit ridership and create better-connected, multimodal neighborhoods.



Figure 21: A list of the benefits of a successful TOD program. Source: Federal Transit Administration (FTA) (link).

For the purposes of this study's policy recommendations, TOD should be viewed with slightly different criteria than residential development along freight rail corridors. Residential development is far more detrimental to freight rail than beneficial, and until now the rail-adjacent housing in Delaware south of the canal has been exclusively low-density. Not only does this approach take away substantially more land from rail-supported industrial uses, but it does not lend itself to future TOD projects, should passenger rail be implemented along the existing freight lines. TOD, by contrast, prioritizes high-density housing in strategic locations with convenient access to businesses and services. This is ideal for those interested in using the rail for their commute, and it has less of an impact on rail-adjacent parcels.

If TOD is discussed for central and southern Delaware in the future, stakeholders should keep in mind that such projects can exist harmoniously with the freight rail, but only if they use high-density housing, they are located in walkable downtown areas close to other services, and they are concentrated on parcels that are not viable for rail-supported industrial use. Note that TOD projects still need adequate buffers between the railroad tracks and new housing, as well as other safety features such as enhancements to vehicle and pedestrian crossings.

Appendix F of this study contains an example of a TOD model ordinance within the Mid-Atlantic. Those interested in TOD can also view resources on the topic from the Wilmington Area Planning Council (WILMAPCO)[38] and the Delaware Valley Regional Planning

[37] "Corridor Identification & Development Program" (StoryMap). Federal Railroad Administration (FRA). https://storymaps.arcgis.com/stories/e1f1bd55cfad489a859cc8905d0dad16.

[38] *Principles and Practicalities of Transit-oriented Development in New Castle County*. Wilmington Area Planning Council (WILMAPCO) (2016). https://wilmapco.org/TOD/ncc_tod.pdf.

Commission (DVRPC)[39], Dover Kent MPO's partner agencies, as well as from the Federal Transit Administration (FTA).[40]

Education and Outreach

It is understood that decisions surrounding the freight industry, including freight rail, have the potential to heavily impact the communities in which the industry resides. To avoid negative outcomes for both the community and freight stakeholders, education and outreach should be a regular part of the process. The *Delaware State Freight Plan* includes several goals and strategies related to this topic; for example, under the goal of "Economic Vitality", the plan includes the strategy of "Freight Land Use Preservation", emphasizing the need to "[coordinate] with and educate the region's planning officials on the importance of preserving critical infrastructure and freight-oriented land uses in key freight or rail corridors and industrial areas." In addition, under the goal of "Resilience, Sustainability, and Environmental Stewardship", the plan includes the strategy of "Public Outreach and Education", which involves "[ensuring] that freight is a "good neighbor" to communities by continuous education and public outreach."[41] As explained in the *State Freight Plan*, outreach is a key part of the process of reducing conflict and finding the best outcome for everybody.

Municipalities should be the first groups to be targeted for outreach, especially if they are not already aware of the many benefits of freight rail. Once a municipality has an understanding of the importance of rail corridor preservation, it can then lead the efforts described above, including updating the comprehensive plan, changing zoning codes, creating ordinances regarding setbacks and buffers, and addressing conflicts such as noise and vibrations.

Coordination between freight stakeholders and State and local governments is an important way to gather firsthand knowledge of a topic and the potential impacts. Freight-dependent businesses, property owners, and anyone involved in regional economic development may be a part of these stakeholder discussions. Local governments might also be unfamiliar with the topic of freight corridor preservation, which heightens the need for outreach to occur. To facilitate coordination, it may be useful to form a committee or working group to focus on a specific topic.

Working with existing groups is also a good idea. For example, the Delmarva Freight Working Group is an active group of representatives from the State, county, and MPO levels, as well as from the University of Delaware's Institute for Public Administration (IPA) and other relevant

[39] "Transit-Oriented Development." Delaware Valley Regional Planning Commission (DVRPC). https://www.dvrpc.org/our-work/community-planning/smart-growth/transit-oriented-development.
[40] "Transit-Oriented Development.". Federal Transit Administration (FTA). https://www.transit.dot.gov/TOD.
[41] *Delaware State Freight Plan*. Delaware Department of Transportation (DelDOT) (2022). https://deldot.gov/Business/freight/pdfs/2024/Delaware%20State%20Freight%20Plan%20-%20Full.pdf.

stakeholders. The group meets monthly to discuss the freight industry in the Delmarva Peninsula and the greater Mid-Atlantic region, and it organizes summits where stakeholders can collaborate and share ideas. This group has supported and contributed to the completion of this study as well as its predecessor. With its established network of contacts and diverse knowledge base, the Delmarva Freight Working Group would be a great starting point for initiating a freight-related outreach campaign or getting in touch with stakeholders.[42]

Outreach should also be focused on the general public. State freight plans contain information that may help to inform the public on the freight industry, and they often discuss the importance of freight corridor preservation. However, these documents typically offer a more in-depth look at the freight industry within the state, and the information provided can be overwhelming. As a result, a state freight plan may not be a very accessible introduction to the topic. To supplement the document, outreach efforts can include materials that provide high-level views of the freight industry and freight corridor preservation. Data from the state freight plan can be displayed using graphs, charts, or graphics that are easy to understand.[43]

Above all else, freight planning should be transparent and inclusive, rather than being done quietly or leaving people out of the discussion. This ensures the outcomes will be positive and conflicts will be prevented. More information on outreach with stakeholders and the public can be found in the sources cited throughout this section.

[42] "Delmarva Freight & Goods Movement Working Group." Wilmington Area Planning Council (WILMAPCO). https://wilmapco.org/delmarva/.
[43] "Education about Freight Transportation Issues." *Preserving and Protecting Freight Infrastructure and Routes*. National Cooperative Freight Research Program (NCFRP) (2012). https://www.nationalacademies.org/read/14650/chapter/11.

Long-Range Planning	Zoning and Design	Mitigation	Education and Outreach
State Enabling Acts	Zoning Standards	Buffer Areas	Informal Negotiations
Regional Visioning	Buffer Areas	Noise and Vibration Treatment	Public Involvement
Comprehensive Plans	Overlay Districts	Track Treatment	Multijurisdictional Agreements
Freight Facility Inventories	Lot Orientation	Yard Realignment	Stakeholder Round Tables and Freight/Community Committees
Official Maps	Property Design	Grade Crossing Management	
Purchase and Advance Acquisition	Construction Standards	Port Gate Management	
Land Swaps	Soundproofing Standards	Environmental Measures	
Protective Condemnation		Zoning Measures	
Permit Development		Public Outreach and Education	
Access Rights		Relocation	

Figure 22: A list of strategies for freight corridor preservation, which are discussed in greater detail in Preserving and Protecting Freight Infrastructure and Routes. Source: National Cooperative Freight Research Program (NCFRP) (2012) (link).

Conclusion

The summary of the 2022 *Rail Corridor Land Use Study*, provided at the end of the study's body, reads as follows: "The purpose of the rail is to move freight. Residential uses along the rail can cause interruptions. Adjacent properties should accommodate rail and at best provide a place for those enterprises that need rail access. This approach contributes to compatible long-term land uses as well as secures opportunities for economic growth."

This statement has been the guiding principle of each of the rail studies completed by Dover Kent MPO over the past ten years, including this one. What started as a summary of rail-focused language within comprehensive plans and zoning laws in Kent County in 2018 evolved into a countywide analysis of rail-adjacent parcels. This study, the latest entry, expands the parcel analysis to all rail-adjacent parcels in Delaware south of the C&D Canal. More importantly, though, it provides strong recommendations for municipal, county, and State entities who are interested in preserving the rail corridor and preventing incompatible uses. It is Dover Kent MPO's hope that the observations, checklists, sources, and example ordinances provided throughout this study will guide Delaware stakeholders as they work to achieve these goals. Municipalities that want to discuss these topics further are encouraged to reach out to Dover Kent MPO.

The web-based map that was a part of these efforts contains parcel information from both this study and the 2022 study. It can be found at the following location:

- **https://experience.arcgis.com/experience/603133f517314b909b5c2ae6c2c3029c**

Appendix A – Listing of Parcels

The following is a list of parcels from the rail corridor analysis in southern New Castle County and in Sussex County. Using a format similar to that of the previous study, the spreadsheets provide information on each parcel such as jurisdiction, acreage, land use, general zoning category, and other relevant notes such as the presence of wetlands. Both a complete list of reviewed parcels and a list of parcels viable for rail-supported industrial uses are included. The reference number featured in the spreadsheets corresponds with the number that appears on each parcel in the map series in Appendix A.

Please see the attached document for the full contents of Appendix A.

Appendix B – Rail Corridor Map Series

The following pages consist of the map series for parcels adjacent to the rail in lower New Castle County and Sussex County, Delaware. The first map in the series depicts the study area with the placement of tiles; the subsequent pages depict individual tiles, starting with the westernmost tiles and moving in an easterly direction. Attributes shown in each tile include the location of the railroad, general zoning categories for parcels adjacent to the rail, municipal boundaries, wetlands, forestland and agricultural easements, and other features. The number on each parcel corresponds with the reference number featured in the spreadsheets in Appendix A.

A dynamic web-based map was created to display the parcels from the map series. It includes the parcels for lower New Castle County, Kent County, and Sussex County. This map can be accessed using the following link:

- **https://experience.arcgis.com/experience/603133f517314b909b5c2ae6c2c3029c**

Please see the attached document for the full contents of Appendix B.

Appendix C – Updated Comprehensive Plan Summaries

The following is a list of municipalities included in the rail parcel analysis, with the relevant information from each of their comprehensive plans. Note that the rail-specific language, when available, is copied directly from the document. When there was little rail-specific language available, the appendix makes note of this absence. The most recent comprehensive plans were used to provide updated information on the topic.

2026 New Castle County Municipalities Adjacent to the Delmarva Central Railroad with Revised Comprehensive Plans since 2018

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Middletown	2022	Middletown	Some	Some

Community Character (p. 12) - "The aerial map also shows the town's convenient proximity to both the City of Wilmington and Dover, the railroad corridor extending through the center of town, and the Route 1 corridor, which is the primary state highway extending from Christiana Mall in the north down to Fenwick Island in the south of the state."
Town History (p. 13) - "In 1855, the Pennsylvania, Baltimore, and Wilmington Railroad (PB&W) built a depot in Middletown, and the town entered into a new era of growth with the arrival of the railroad. The construction of the Delaware Railroad on Middletown's western border had the impact of drawing new development toward the northwestern side of town where most of its historic buildings are located today."
Transportation/Utilities (Page 23) - "Streets, railroads, and properties utilized for utility purposes are classified as Transportation/Utilities. In Middletown, most of this area is represented by the two railroad lines and their rights-of-way."
Roads and Traffic (p. 31) - "The primary point of congestion in town is in the historic part of Main Street adjacent to the railroad crossing. This is in part because there are a limited number of railroad crossings in the area and traffic is funneled to those few crossings… Current road improvement projects that the town is pursuing include the Eastown Transportation Improvement District (TID), an expansion of Route 299/Main Street from Route 1 to the historic downtown area, and the Green Street extension project, which will add an additional railroad crossing within town."
Railroads (p. 35) - "A freight railroad line passes through the center of Middletown and was critical to its history and growth as a town in the 19th century. This rail line is the only major line extending from north to south on the Delmarva Peninsula and runs roughly parallel to Broad Street through Middletown. This rail line connects Middletown with the northeast corridor, providing transportation to statewide and regional destinations. The rail line is owned by Norfolk Southern and is currently only used to move freight. In recent years DelDOT has worked to prioritize and promote the use of the state's freight corridors for industrial and manufacturing uses that can attract new businesses and new jobs to the state. Passenger rail is available approximately 17 miles north of Middletown at the Newark Train Station adjacent to the University of Delaware STAR campus, with services from SEPTA and Amtrak. Parking lots are available near the train station along with electric vehicle charging stations and bicycle parking. Middletown is also just 22 miles from the Churchman's Crossing train station near Christiana Hospital and only 27 miles from the Wilmington train station. While passenger rail may eventually be feasible to run to Middletown, there are no significant plans to do so in the near future due to lack of demand and capacity."

Transportation Improvements (p. 40) **-** "The primary issue with traffic in town is that there are a limited number of crossings over the railroad line, which makes east-west travel in town very difficult."
Town History (p. 77) **-** "Around 1834, the Pennsylvania, Baltimore, and Wilmington Railroad (PB&W) proposed to run its line through Odessa. However, the townspeople wanted no part of the noisy iron horses, so in 1855 the PB&W built a depot in Middletown. Middletown entered a new era of growth with the arrival of the railroad. The success of the railroad brought prosperity and three decades of economic and social progress. Local farmers found wealth in the peach industry that flourished throughout the Delmarva Peninsula."
MPO Notes - The Plan depicts a relatively limited enclave area along the westerly side of the railroad at the north end of town designated for annexation for Industrial Use. A much larger area along the railroad corridor adjoining the Town to the south is shown for annexation for Residential Use. (See Map 7 - p. 29.)

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Townsend	2020	Townsend	No	No

History of the Town (p. 3) - "In 1856 the town became a stop along the new Delaware Railroad, bringing Townsend new prosperity. During the latter half of the 19th century, large quantities of agricultural produce were shipped from Townsend, especially peaches, grain, and lumber. The town served as a shipping point and a marketplace for the scattered rural population of the area. Townsend incorporated on April 3, 1885, at which time the town was platted, and the streets were laid out. By 1888, the village had a population of 350. Since that time, the railroad has lost its prominence to trucking for freight hauling in the United States. However, the railroad and agriculture are still important in shaping the character of Townsend. Today, it remains a small residential town of over 2,049 residents."
Historic and Cultural Resources (p. 4) - "Once an isolated crossroads in 1856, Townsend was bisected by the railroad which created a more active shipping and commercial center by 1880."
Inventory of Roads in Town (p. 49) - "Townsend is bisected by the train tracks of the Norfolk Southern Delmarva Secondary Line, the primary freight line serving the entire Delmarva Peninsula. Typically, four to eight freight trains travel through the heart of Townsend each day, crossing Main Street at an at-grade intersection and serving some local industrial businesses. Just south of town, the main line branches off onto the Townsend Line, serving nearby Maryland's Eastern Shore. This track is owned by the State of Maryland and operated by the Maryland Delaware Railroad, a private corporation. Approximately two trains per week use this track."
Reduction of Truck Traffic on Residential Streets (p. 54) - "Townsend has a lot of trucks (especially grain and cement trucks) traveling on Main and Commerce Streets to access the commercial and industrial activities near the railroad track."
Education Recommendations (p. 27 & 74) - "Develop safe walkways for children to cross the railroad tracks to walk to Learning Center and Elementary school and to bus stops."
Pedestrian Network and Environment Recommendations (p. 79) - "Continue negotiations with the rail line to mitigate pedestrian conflicts and potentially redesign the confluence of Main Street and the railroad tracks by adding sidewalk to the left of the signals."
Business and Industry (p. 65) - "A mix of business and industrial uses are concentrated in the southwest quadrant of the town along the railroad and in the existing industrial complex. One of these is the Mountaire Grainery, which is the only grain processing facility in southern New Castle County, and another is Heritage Concrete."
MPO Notes - The Future Growth & Annexation Plan (p. 87) depicts a fairly large area for annexation that adjoins the town to the north and borders the railroad on both the easterly and westerly sides. Other areas in the vicinity of Town along the railroad are shown as "Areas of Concern" that the town would like to see preserved as either a "greenbelt area" or a possible sending area for a Transfer of Development Rights program.

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
New Castle County	2022	New Castle County	Some	Yes

Future Land Use Density and Intensity (p. 95) - "The Heavy Industry District (HI) is intended to provide for industrial and heavy industrial uses, typically having access to rail lines or navigable marine waterways in addition to roadways (Gross Floor Area Ratio ranges from 0.34-0.69)."
Coastal Zones, Sea Level Rise, and Floodplains (p. 111) - "Particularly concerning is that a large portion of Delaware's heavy industry and railroad system are found within New Castle County's coastal zones (See Map D-5 for updated Coastal Inundation Areas at 2- and 5-foot levels)."
Transit, Ride Share, and Train Service (p. 160) - "New Castle County is home 39 DART bus routes, 30 park-and-ride locations, and four SEPTA rail stations (with the Wilmington and Newark stations also served by Amtrak)."
Freight Movement (p. 174) - "The rail freight system is also significant, with two major rail lines, CSX and Norfolk Southern notably serving the refinery and other industrial uses in the county. A significant amount of pass-through rail traffic occurs as well adding to the rail traffic that the County experiences. DelDOT's Shellpot Bridge Rehabilitation reopened the freight train bypass of the Wilmington Station in return for payment of tolls by the railroad."
Additional Mobility Considerations (p. 176) - "Passenger rail projects are underway to extend more SEPTA trains from Wilmington to Newark. Projects included renovating the Biden Train Station in Wilmington, and adding a third track south of Wilmington to increase capacity. A new train station was built at Newark, and construction is underway to build a new center platform, and to expand track capacity. Also, a new station and parking garage will replace a smaller rail station at Claymont. WILMAPCO has studied potential additional SEPTA rail stations at Newport and Edgemoor. (The Newport station was found to be feasible, while the Edgemoor was not.) These efforts require significant investment and coordination among many agencies and stakeholders but are important in providing connectivity to residents and the resources they need."
Critical Freight Network Investments (p. 177) - "Delaware's economic growth is dependent on a reliable freight network, which includes roads, railroads, ports, waterways, and airports. DelDOT will continue to support operational efficiencies, investments in designated growth areas and infrastructure improvements that promote freight-related business growth. Maintaining reliable roadway connections to freight facilities and mitigating hazard impacts, such as increased roadway flooding, are important parts of DelDOT's asset management program."
Transportation Investment Areas (p. 180) - "Center: High existing and planned concentrations of people and jobs with opportunities for significant re-development. Transportation Objectives: Intensive transportation investment with an emphasis on public transportation (including rail and the most frequent bus service) and walking and bicycling improvements. New highway interchanges should be discouraged. High frequency bus service is appropriate."
Sea-level Rise Vulnerability Assessment (p. 184) - "In 2011, WILMAPCO produced a Sea-level Rise Vulnerability Assessment to identify at-risk transportation infrastructure in the region using locally developed inundation scenarios. Segments of near-river railways such as the New Castle County Secondary and Norfolk Southern's Port Road Branch could be at risk. Wilmington's train station risks inundation with a one-meter rise."
Economic Empowerment Districts (EED) (p. 256) - "A proposed EED must have a minimum parcel size of ten (10) acres. The area or site within the proposed district must take access from a collector or arterial street or be located within one quarter (1/4) mile of a bus stop or within one half (1/2) mile of a commuter rail station."
Shipping, Warehousing, and Logistics (p. 291) - "Trends identified by DelDOT that could impact New Castle County include:
• Most of Delaware's rail system is served by the Amtrak-owned Northeast Corridor route, which prioritizes passenger service over freight.

• Nationally, trends show that railcars are getting heavier (286,000+ lbs), which existing rail infrastructure cannot accommodate, and in general, Delaware's rail lines are under-utilized.
• Intermodal traffic (truck trailers or shipping containers on rail flatcars) is the fastest growing sector of the national rail industry, but these connections have been long been neglected by policy choices and priorities. They will need to be considered if freight facilities are to continue to develop in the state."
MPO Notes - The New Castle County Comprehensive Plan contains information on some of the increasingly important freight implications, particularly the vulnerability of freight infrastructure to sea level rise. However, it does not discuss the need to preserve the land adjacent to these corridors for industrial uses.

2026 Sussex County Municipalities Adjacent to the Delmarva Central Railroad with Revised Comprehensive Plans since 2018

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Blades	2023	Blades	No	No
Community Character (p. 18-20) - "During the mid-1800s, the Pennsylvania Railroad arrived in Seaford. Around 1850, a railroad employee named James Blades purchased a tract of land that included the present Causeway and the area corresponding to High and Market Streets in Blades. Shortly thereafter, several local families settled in James Blades' community… The Norfolk Southern railroad traverses the western edge of Blades. Numerous manufacturing uses have located along this rail line over the years. To the east of the rail line, within Town boundaries, are a number of industrial uses involving plating, storage, welding, and auto repair. To the west of the rail line, outside current Town boundaries, is the Wyoming Concrete Company and a company that ships and receives bulk stone via the Nanticoke River." **Transportation** (p. 62) - "The railroad that was extended to the Town in the mid-1800s is another important transportation resource that enabled industrial development along the western end of the Town." **MPO Notes** - The Growth and Annexation Plan reflects interest in annexation of approximately 41 Acres adjoining the town (Annexation Area 5) along the westerly side of the railroad that was actively in use for Industrial purposes (Wyoming Concrete & Arundle Stone & Gravel). The Implementation Chapter does not reflect any specific Policy Guidance or Land Use Recommendations associated with the railroad.				
Bridgeville	2018	Bridgeville	Yes	Some
Introduction (p. 10) - "Goal Four: Be realistic but opportunistic about growth along US 13 and the northern end of Bridgeville. Bridgeville is still a small town in a rural area and does not have the "rooftops" to drive upscale retail stores, supermarkets and restaurants. However, it does have infrastructure and assets that could attract locally based entrepreneurs and industry. For example, access to a truck route and rail along Alternate 404 north could lay the groundwork for an agricultural business/industrial park." **Demographics and Economic Conditions** (p. 18) - "The largest private employer in the area is Pet Poultry Products, which is located along the railroad tracks on the western end of town." **Economic Development and Downtown Vitality** (p. 30) - "Focus on agricultural industry in northern Bridgeville: The northern end of Bridgeville, including parcels within the town's annexation area, is served by rail and a truck route and already includes some manufacturing and agricultural related industry. In previous planning exercises such as the 2014 Bridgeville-Greenwood Master Plan, which focused on both towns (see pages 18-20), town leaders envision this area as an employment center, away from residential development, that could accommodate more intensive uses." **Economic Development and Downtown Vitality** (p. 32-33) - "Agricultural-related businesses dominate the western end at the railroad tracks… Consider a professional approach to attracting business to Bridgeville, particularly the commercial parcels along the US 13/404 corridors and the northern sector of Bridgeville, which is planned for industrial/ manufacturing growth along a truck route and rail." **History & Preservation** (p. 80) - "The town is also significant for its reflection of the influence of rail transportation on the agricultural economy of the region in the latter half of the 19th century. The town boomed				

following the arrival of the railroad in 1856 and became a prominent center for the shipment of agricultural produce from the surrounding region; it retained this status well into the early 20th century… By the early 20th century, Bridgeville's importance as a center of agricultural commerce was well established, and its growing population enjoyed a number of important community services and organizations. The railroad station at Bridgeville offered an important trans-shipment point for large quantities of produce from the surrounding fields and orchards. Notable crops included peaches, apples, strawberries, cantaloupes, watermelons, and sweet potatoes."
MPO Notes - The Annexation Element of the Plan designates a fairly large area to the north of town for Short Term Growth for Industrial/Commercial Uses on the easterly and westerly side of the Railroad, and north and south of Newton Road. The Comprehensive Plan primarily discusses the history of the railroad, but it also references the goal of connecting the agricultural and manufacturing industries with existing rail infrastructure.

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Dagsboro	2020	Dagsboro	No	Some

Existing Land Uses (p. 7) - "The railroad tracks that run north and south through the Town near the commercial and industrial districts are a great advantage in the transportation and efficiency in the delivery of goods and could be used to support additional commerce in Town. These tracks are still used to transport goods and supplies to businesses and industries on the Delmarva Peninsula."
Development Strategy: Transportation (p. 32) - "The rail line that runs through the Town is the Indian River Secondary line. Norfolk-Southern, the ownership company, leases the line for operations to Carload Express. On average, two trains travel through the Town on a daily basis hauling grain for the poultry industry and coal for the Indian River Power Plant. The Town should plan for and promote the use of this existing rail line which may prove to be more heavily utilized in the future due to escalating fuel costs. With the increase use of the rail line, which is being seen locally and nationally, the Town should also work with the Dagsboro Volunteer Fire Company in developing a disaster plan in preparation for any potential emergency which may occur in or adjacent to Town."
MPO Notes - The Comprehensive Plan recommends that the town proceed with submission of a nomination to establish the Dagsboro Historic District. If established, it would be bounded on the west by the Railroad line. The Implementation Plan established in Chapter 3 does not include any specific recommendations or action steps relative to the Railroad. However, the plan does encourage utilizing the rail line to benefit local industries.

Delmar	2021	Delmar	Some	No*

Railroads (p. 19) - "The regional line of Norfolk Southern traverses north and south through Town. The Town was founded as a rail transfer and classification center for the Delmarva Peninsula railroads. Rail traffic has been on the decline since the 1940's because truck transportation is often cheaper and more convenient."
Position on Access and Circulation Westside Collector (p. 42) - "The Westside Collector would extend from U.S. Route 13, on an alignment which could include Francis Street, west to Route 13A to Old Racetrack Road. A number of alternative alignments are possible. From Old Racetrack Road, it would continue south, intersecting Foskey Lane and then connecting with Connelly Mill Road, which extends east to U.S. Route 13. This street would connect the industrial areas along the railroad directly to U.S. Route 13."
Rail (p. 44-45) - "The main line of the Carload Express railroad formally known as Norfolk Southern continues to provide rail freight service to industry in the Delmar area. The chief advantage to local rail users is the savings incurred through a low car transfer fee which could serve as an added benefit to attract various types of industrial development. The uncertainties relating to the future status of the railroad are of great concern to Delmar because the Town considers the railroad vital to existing industrial activity and future employment growth. In order to encourage continued rail service, the Town will work with public and private parties to develop policies to stimulate rail use, attract new industry, and heighten public awareness of the importance of the railroad to the entire region."
Position on Redevelopment Potential (p. 45) - "The Town has two legacy central business districts. The original was centered at the intersection of State Street and the railroad. Formerly the location of restaurants, taverns, shops and overnight accommodations, it grew to serve rail passengers and related business activity. It was mainly

bounded by Grove Street on the north, Railroad Avenue on the west, East Street on the south and 2nd Street on the east. It also served the shopping needs of Delmar's growing number of households. The area was destroyed twice by fire in the late 19th century and was rebuilt and thrived for many additional decades."
MPO Notes - The historic center of Delmar traces its roots to the intersection of State Street with the Railroad line. The existing Norfolk Southern Railroad Line runs north/south through the westerly side of Town. The Future Land Use Plan (Map #5) reflects future annexation along the railroad corridor in the northeast quadrant of town for Industrial/Office Employment expansion. The Comprehensive Plan does not propose any railroad specific policies, actions or implementation steps relative to the railroad. Legacy Employment/Industrial Zones are aligned along the railroad in the northwest quadrant of the Town.
*Note that a rail spur previously existed in the Town of Delmar, to the south of Parcel #034. It is no longer present on the property, and residential structures appear to be present, meaning the spur's return is unlikely.

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Ellendale	2021	Ellendale	Some	Some

Ellendale's Railroad Square: The Heart of a Railroad Village (p. 9) - "Ellendale's Railroad Square was a major rail junction and a beehive of economic activity in Sussex County. The first section of the Junction and Breakwater Railroad from Harrington to Milford was completed in 1859… By 1869 the line was completed through Ellendale and Georgetown to Lewes. It was extended from there to Rehoboth in 1878. There were 14 stations and regular passenger, mail, and freight service on the 44-mile line from Harrington to Rehoboth. Through its junctions, the J. & B. was a part of the first rail network to serve all three Delmarva states – Delaware, Maryland and Virginia. The Town of Ellendale was incorporated in 1905. In 1916 the DuPont Boulevard, now US 113, was built a mile to the west."
The Norfolk & Southern Railroad (p. 30) - "Rail transport is now and has been key in Ellendale. The Norfolk-Southern railroad company operates the main north-south rail line from Milford to the Maryland Line. The Delaware Rail Administration, a subsidiary of DelDOT, owns the former Queen Anne's Railway, now called the "Milton Industrial Track," between Ellendale and Milton. This State-owned rail right-of-way to Milton offers a splendid potential for a Greenway hiking and biking trail, either in the form of a "Rails-with-Trails" or a "Rails-to-Trails" a project. An independent short-line railroad company uses the Queen Anne's line and the Ellendale rail siding for freight car storage. It should be possible to preserve this valuable railroad use in tandem with a unique Greenway project. The line could also be used for scenic rail tour excursions in the future, perhaps in conjunction with scenic tours on the rail line between Ellendale and Milton. Norfolk & Southern Railroad uses the one-track north-south line for approximately four freight trains per day, Monday through Saturday. There are sometimes additional freight runs. The freight trains carry bulk cargo between the Harrington Yards, Frankford and Indian River. Recently, the Milton International Line has been reestablished and carries oil and gas cars to Baker Petroleum in Milton. The Railroad line is currently being upgraded with all new tracks."
MPO Notes - Delmarva Central Railroad (formerly Norfolk Southern) operates the north/south line from Milford through Ellendale into Maryland. The Ellendale Comprehensive Plan identifies this line as a potential candidate for conversion to a Rail-to-Trail recreational amenity while noting that this can be done while preserving the railroad itself. The Comprehensive Plan also identifies lands along the railroad corridor as a potential wildfire threat that should be monitored (page 34). The Comprehensive Plan suggests that the Town should review its existing Zoning Classifications for parcels that could support new commercial and industrial businesses near the railroad. Lands situated along the westerly side of the Railroad, north of Main Street are in use by Delaware Coastal Railway and are designated as Commercial/Industrial lands. The Future Land Use Plan does not specifically designate lands along the Railroad for future Rail Industry or Rail Supported Uses. The predominate Future Land Use designation along the Railroad is Residential. Consistent with the Future Land Use Plan, surrounding areas identified for possible Annexation are designated for Residential, Mixed Use Residential, and Agriculture, Natural Resource Preservation, and Open Space. The Future Land Use and Annexation Plans do not specifically propose leveraging the existing railroad for business expansion purposes.

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Frankford	2020	Frankford	No	Yes

Vision Statement (p. 4) - "Much of Frankford's current residential pattern was set during the mid to late 1800's after the construction of the railroad."
History (p. 6-7) - "The Town of Frankford appears for the first time on a Delaware Railroad map circa 1836… Before the arrival of the railroad in the 1830's, Frankford's transportation links were by water… Whatever role the Vines Creek played in the Town's early development was soon overshadowed by that of the railroad, which provided an inexpensive means of shipping the area's agricultural products to the larger, northern commercial centers of Wilmington and Philadelphia. The development of the railroad brought new business opportunities to Frankford, while shifting the hub of commercial activity toward the current center of Town where the railway station was originally located."
Rail (p. 29) - "There is one railroad right-of-way in Frankford. It passes through Town in a north-south direction and roughly parallels US 113. The rail lines are utilized exclusively for freight service to the region. Locally, the rail service is to the Mountaire poultry feed operation in Town."
MPO Notes - The Existing Land Use Plan identifies Mountaire Farms poultry feed processing facility as the single industrial use in the Town which is situated on approximately nine (9) Acres and adjoins the railroad. Mountaire uses the railroad for material shipping. The plan refers to the presence of the railroad but does not acknowledge the importance of rail corridor preservation or the potential for industrial redevelopment along these parcels.

Georgetown	2021	Georgetown	Some	Yes

Industry Expansion (p. 2-3) - "In 1869, the Delaware, Maryland, and Virginia Railroad extended to Georgetown. This opened opportunities for the sale of many types of products, including fresh fruit. Following the availability of new products was the opportunity for new industry (e.g., canneries followed the fresh fruit)."
Georgetown to Lewes Rail-Trail (p. 3-8) - "Many areas within Georgetown are already built out—there are limited opportunities for off-road multiuse trails; however, the Georgetown to Lewes Rail-Trail, a high priority DelDOT project, presents a unique and exciting opportunity… When complete, the trail will be a 10-foot wide paved trail that extends over 17 miles from Georgetown to Lewes, creating the single longest trail in the State."
Railroad Facilities (p. 3-10 – 3-11) - "There are not any passenger rail routes that serve Georgetown; however, two freight routes do pass through the Town. Norfolk Southern operates a north-south route called the Indian River Secondary Track, with stops in Millsboro, Dagsboro, and Frankford. Beyond Frankford, the railroad travels to its terminus in Snow Hill, MD. South of Frankford, the railroad is operated by the Maryland and Delaware Railroad. North of Georgetown, the railroad converges with another Norfolk Southern line in Harrington. The second rail line follows an east-west route connecting Georgetown (as a terminus) with Lewes on the coast.
"The Delmarva Central Railroad Company, a subsidiary of Carload Express, operates 188 miles of rail line in Delaware, Maryland, and Virginia. The lines run from south of Wilmington to Hallwood, VA and from Harrington to Frankford. It interchanges with Norfolk Southern, as well as the Maryland & Delaware Railroad, in several locations on the Delmarva Peninsula…
"The Delaware Coast Line Railroad (DCLR) is a shortline railroad currently operating on the Delmarva Peninsula. The track is owned by the State of Delaware and managed by the DTC. It operates on 23 miles of track in Sussex County. The DCLR lines were acquired by the State from the 1968 Penn Central bankruptcy, including one branch line from Ellendale to Milton and another from Georgetown to Lewes. Main commodities carried by the DCLR are chemicals, grain, and propane. The Gravel Hill unloading site near Milton receives grain. Propane shipments to the Wilson Baker facility on the Milton Industrial Track began in October 2010. Additional shippers are located at the Sussex County Industrial Airpark near Georgetown, where a rail siding accommodates the Schagrin Gas propane facility.
"As a 'green' mode of transportation, freight traveling by rail reduces highway congestion, improves safety, and uses less energy per ton-mile than other modes of transportation. The State's rail corridors are economic drivers for its communities, providing the opportunity for Delaware's industries and farmers to extend the markets for their goods."
Goals & Recommendations (Economic Development) – "Direct downtown visitors to locations where parking is currently underutilized, such as along the railroad."

Goals & Recommendations (Land Use) (p. 10-15) - "LU-3: Promote infill and redevelopment in appropriate areas within the Town.

1. Promote redevelopment of underused lands between Race Street and the railroad; a wider range of mixed uses than current zoning allows may be appropriate, as well as taller maximum heights."

Opportunities (Community Engagement) (p. AC-6) - "Focus on the Town becoming a transportation hub. It already has some DART service. At some point in the future try to utilize the existing rail facilities to implement passenger rail… Utilize the existing rail facilities as the basis to some sort of tourism project."

MPO Notes - The Comprehensive Plan thoroughly discusses the background of the rail industry in Georgetown. It also references the 2011 *Delaware State Rail Plan* and its goals relevant to municipalities and other rail stakeholders. The Future Land Use Plan reflects a substantial area adjoining the railroad on the east side of Town for possible annexation for Industrial Use. Areas to the south of Town and adjoining the easterly and westerly sides of the railroad are also identified as potential Annexation Areas to be designated for Rural Agricultural and Recreation & Open Space Uses. Some of these areas are already developed as Low Density Residential. Other than the recommendations referenced above related to "parking" and "infill and redevelopment", the Implementation Element (Chapter 11) does not include any specific land use or policy recommendations for further consideration or action.

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Greenwood	2019	Greenwood	No	Some

History - A Brief Look Back (p. 17) - "Eventually, and prior to the completion of what was called "The Delaware Railroad" in 1856 and the construction of a railroad station, the little village that was to become Greenwood was dwarfed by nearby Bridgeville and St. Johnstown, the latter located only a mile from the new railroad station. But with the coming of this north-south Delaware Railroad, Greenwood soon replaced St. Johnstown as the community's center, and the Town was officially founded shortly thereafter, in 1858. By 1868, Greenwood's railroad station was surrounded by a general store, a hotel and homes. The station soon became a key shipping point for the nearby nurseries that had begun to specialize in fruit growing. In the late 1880's, records show that a forge, grist and sawmills, and a cannery were added to Greenwood's list of local businesses.

"In any case, by 1895 with the coming of a second railroad, (originally known as "Queen Anne's Railroad") running east and west through the Town, Greenwood was becoming a key, albeit small, northwest Sussex County commercial center. Soon, seven trains ran daily each way north and south on the Delaware Railroad and two trains per day traveled east and west on the Queen Anne. With the Delaware Railroad providing access to New Castle and Wilmington and the Queen Anne's Railroad eventually linking Lewes, Delaware to Baltimore via a ferry that crossed the Chesapeake Bay, Greenwood's location at this rail crossroads played an obvious role in the Town's growth. In 1905, the Queen Anne's Railroad was absorbed into the Maryland, Delaware and Virginia Railway Company, a subsidiary of the Pennsylvania Railroad. This line's service to Greenwood eventually stopped and the Railroad's tracks were removed. The Delaware Railroad's single-track line has continued operating and, until 2016, was run by the Norfolk Southern Railroad. Subsequently, the line was leased to Carload Express incorporated (CEI) and is now operated by Delmarva Central Railroad, a CEI subsidiary."

Existing Land Uses (p. 29) - "Manufacturing uses are found along the railroad south of Governors Avenue."

Transportation (p. 31) - "The State of Delaware does not provide DART bus service to Greenwood. Beyond that, no regional bus or passenger rail service is available in Greenwood. DelDOT is responsible for maintenance of the Town's two at-grade rail crossings, at Market Street and Governors Avenue."

MPO Notes – The Comprehensive Plan estimates that there is approximately five (5) acres in Town associated with the railroad that is devoted to manufacturing uses (p. 29) located in the southern part of Town, situated on the westerly side of the railroad. The Growth & Annexation Area Plan illustrates potential annexation of a small area bordering the Town Limits to the north along the westerly side of the railroad for future Manufacturing and Industrial Uses (p. 62 - Map 7). Other than an extensive description of the history of the railroad in Greenwood, and some brief references to the current railroad uses, there is nothing in the Plan that recommends preserving rail-adjacent parcels or even finding new industrial uses along the rail.

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Laurel	2018	Laurel	No	No

Shipbuilding an early industry (p. 41) - "The railroad reached Laurel from the north in 1859, connecting the village with Wilmington, Philadelphia and northern cities. By 1860 the town population was 1,200."
Marvil left his mark on Laurel (p. 42) - "Joshua H. Marvil, a former shipwright, manufacturer of agricultural equipment, carpenter, and cabinetmaker, was one of the most important and colorful of 19th century Laurel residents. Besides being an entrepreneur, he was also an inventor who received 17 patents in 18 years. Most were for fruit baskets and containers… Around 1870, he built a basket factory on the west side of West Market Street and used the Gothic Revival house across the street as his office. During his first year of operation he manufactured 600,000 baskets. Thereafter he expanded his business to include wharves and warehouses along the river and warehouses along the railroad. By the 1880s, he was producing 2 million baskets and crates annually; one of his workers could make a basket in two minutes."
Schooner vs. train, 1904 (p. 43) - "In June 1904, a unique tragedy occurred when the Delaware Railroad's Norfolk Express chugged over an open drawbridge and plunged into Broad Creek just as the schooner Golden Gate was passing through. The engineer of the train lost his life in the accident, but no one else was injured. The baggage master turned out to be the hero of the day when he crawled under the moving train to uncouple the cars with the passengers aboard. The schooner was a total loss, but the engine was recovered and repaired."
MPO Notes - The Plan designates limited areas for future annexation that adjoin the Railroad. However, the future land uses seem somewhat uncertain. The Existing Land Use Plan (p. 19, Fig 2-11) designates lands adjoining the easterly side of the railroad north of Broad Creek as future "Rural Village" and "Mixed Suburban", and areas adjoining town to the south along the westerly side of the railroad right-of-way as future "Employment". In contrast, the Future Land Use and Growth and Annexation Areas Plan (p. 97, Fig 10-4) reflects the same area north of Broad Creek as a "Short Term Annexation" for "Industrial" purposes while the lands adjoining town to the south are reflected as "Short Term Annexation" for mostly "Residential" with a narrow strip immediately adjoining the Railroad right-of-way designated for future "Industrial/Commercial". The Railroad resource is not mentioned at all in either the Transportation and Mobility Element (Chapter 8) or the Recommendations and Implementation Element (Chapter 10).

Milford	2018*	Milford	No	Yes

History, Historic and Cultural Resources (p. 29) - "With a good supply of various varieties of wood in the area, shipbuilding became an important industry in the 1820s, expanding to its height between 1850 and 1890 when over 150 ships of 100 to 600 gross tons were built. Most of these were two-masted wooden schooners. With the advent of the steel hull, steamboat, and railroad, however, shipbuilding in Milford declined until the last yard, the Vinyard Shipyard, remained during the first half of the twentieth century."
Railroads (p. 82) - "The major north–south railroad line on the Delmarva Peninsula runs roughly parallel with SR 14, as it enters the city from the west and then turns due south, roughly following US 13. The line is owned and operated by Norfolk Southern and presently only hauls freight. It connects Milford with the northeast corridor, providing important linkages to statewide and regional destinations."
Table 26. Non-Residential Land Use Highlights (p. 125) - "B. Crop Production Services: The proposed site of a fertilizer distribution facility. They will be moving their Rehoboth Boulevard operation in hopes for expansion and utilization of the adjacent rail."
MPO Notes - The 2018 Update does not provide detailed information about rail uses. Page #82 describes the location of the railroad coming in from the western boundary before turning south into Sussex County. Other than page #82, railroad uses are not described. Chapter 13, Appendix A (Maps) shows current and future uses in the Northwestern Neighborhood where the rail line enters the City. The maps depict low density residential the area adjacent and on the South side of the rail line and the area near the Baltimore Air Coil to remain industrial. The rail line traverses towards the center of Milford before bending south where the town of Milford extends into Sussex County. Comparing maps, there appears to be residential zoning adjacent the rail lines as it comes into the western

boundary of Milford and then has some industrial and commercially zoned parcels at the point the rail line bends south towards the center of Milford. In addition to the fact that there are five appropriately zoned parcels adjacent the rail line, this western approach into Milford may make an ideal location for a railroad centric manufacturing employment/business park if the currently zoned residential parcels were rezoned to allow rail spur lines. The 2018 Update does appear to depict future land use changes which could leverage rail freight centric manufacturing/ employment centers.
*Note that the Milford Comprehensive Plan is in the process of being updated at the time of this study's completion.

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Millsboro	2021	Millsboro	Some	Yes

Existing Conditions (p. 48) - "Industrial uses are concentrated along the railroad at the intersections of Delaware and Monroe Streets and Washington and Monroe Streets. There is continued development of the industrial uses located at the south end of Town along Mitchell Street, as well as a research and development center near the Indian River on State Street. Residential development began in the Town centered along the Indian River and extending through SR 24. This area is bordered by the Indian River to the east and the railroad to west and runs from Sussex Alley to Wilson Highway."
Future Land Use Plan (p. 52-54) - "The Town should concentrate on professional offices, small business, and restaurants within the downtown, as defined by the Main Street and Washington Street corridor bounded by the railroad tracts in the west and Morris Street in the east.
"It is recommended that the Town amend the zoning ordinance to permit a larger range of agricultural businesses in the industrial zone. It is noted that rail access is important for movement of product, which is where the existing and proposed industrial uses are located. The purpose of the permitting agri-business is to foster opportunities for a wide range of agri-business uses and to enhance efforts to protect farmland while fostering greater income producing opportunities in these areas. Such uses may typically include nurseries, produce markets, and farm equipment businesses, and sale and production of agriculturally related goods and services."
History Continued (p. 60) - "Millsboro had always been a market center for the outlying area because of its river location; thus, it was natural for the railroad to be routed through Town hauling agricultural products to market, grain to poultry farmers, and coal to the local generator."
Roadway Facilities (p. 89) - "In early October [2020], the Delmarva Central Railroad project at the Del. 24 split just before eastbound Main Street and westbound Washington Street was completed. That project included new warning signals and shorter crossing gates; at-grade crossing surfaces with full-depth concrete decking; Americans with Disabilities Act-complaint sidewalks across the tracks and on the north and side of the crossing; a concrete median area; and new paving/striping."
Railroad Facilities (p. 92-93) - "Norfolk Southern operates the railroad route in Millsboro. This line is known as the Indian River secondary line. The line serves the Conectiv power station at Indian River and provides access to a nationwide rail system for the industries throughout Millsboro. It provides a way to safely transport various goods to and from these industries without choking or congesting the traffic within the Town with heavy truck traffic."
MPO Notes - The Economic Development Section of Chapter 14 (Implementation Element) sets forth the following recommendation: "Identify an appropriate location for an industrial park development with appropriate rail and highway access." This recommendation identifies Sussex County and DelDOT as potential partners and coordinating agencies for this effort. The Transportation Element within Chapter 14 does not include any mention of the Railroad. Appendix D of the Comprehensive Plan is a "Downtown Improvement Plan" completed in February of 2019 which focuses on the urban core/central business district within the town. Although not much detail is provided, this element identifies vacant and/or underutilized lands within the downtown along the Railroad Corridor that could be key redevelopment sites for urban/mixed-use. On Page 5 of Appendix D an aerial map illustration identifies a specific parcel with the following balloon note: "Railroad Corridor Open Space - Underutilized land in a central location with the potential to link residential, institutional, and commercial uses"

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Milton	2018*	Milton	No	No

History and Character (p. 12-14) - "In 1865, the Town of Milton was formally incorporated by the state legislature with a town form of government. The community continued to prosper, and by the late 19th century, the industrial development of granaries and crop processing was well established in the south end of Town. Here the Queen Anne's Railroad (later called the Maryland & Delaware Coast Railway) crossed Federal and Chestnut Streets, with rail service across the Delmarva Peninsula connecting Baltimore (via Chesapeake Bay steamship) to coastal Lewes, points north through Ellendale, and six miles to the west.
"Just as Milton's commercial land use patterns were once shaped by shipping on the Broadkill River, and later by railroading on the Queen Anne's Railway, today they are being influenced by the area's arterial roadways, and by a new division of labor between the historic Town Center and more highway-oriented uses along SR 16."
Milton Area Greenway and other Bicycle Routes (p. 62) - "A vacated railroad line crosses the southwestern area of the Town from Lavinia Street, just south of Wagamon's West Shore Development to Federal Street paralleling Sand Hill Road (SR 5A). Reuse of this alignment as a bicycle-pedestrian route will connect this residential area with the traditional town core and its trail segment. Continuation of this trail segment across Chestnut Street through the Dogfish Head Brewery site could connect this segment with Cave Neck Road (CR 88) further strengthening the route as well as further connecting neighborhoods with an established trail segment."
Rail Service (Transportation) (p. 65) - "A rail spur along the old Queen Anne's Railroad alignment from Ellendale to Lavinia Street (Road 250) is owned and maintained by the Delaware Transit Corporation, a part of DelDOT. The spur is leased to the Delaware Coastline Railroad, which in turn contracts to store rail cars there for other railroads."
Possible Implementation Strategies (p. 66) - 1) "Identify possible connections between existing and planned residential developments with the Town Center and promote the reuse of former rail alignments where available."; and, 2) "Support the efforts of County, Regional and State agencies to assure continued air and rail service in the area."
Public Parks and Recreation Areas (p. 69) - "In 2009, in conjunction with the State, the first phase of the Rails-to-Trails project was completed. Eventually this walking, passive recreation facility will extend through Town and out to Lavinia Street."
Annexation (p. 102) - "There are a few large parcels along SR 16 east and west of town that would be appropriate for the Large Parcel Development (LPD) overlay. This would allow both the developer and the Town the flexibility to ensure that the project fits well with the character of the Town. If land were annexed for an industrial park, this would be most appropriate west of town along the railroad tracks.
MPO Notes - Exhibit G (Future Land Use/Potential Expansion) of Appendix E illustrates a sizable area west of the existing town limits along both sides of the existing Railroad for future Limited Light Industrial uses. Although the Plan refers to the history of the Railroad in Milton, the concentrating of industrial activities along the tracks, and several rails-to-trails opportunities, any mentioning of the need to preserve the rail corridor is not present.
*Note that the Milton Comprehensive Plan is in the process of being updated at the time of this study's completion.

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Seaford	2021	Seaford	No	Yes

The Seaford Historical Society (p. 3-7) - "[William Henry Harrison] Ross served as the Democratic Governor of Delaware from 1851 to 1855. Extremely popular with the people, he was instrumental in bringing the railroad into Southern Delaware. Trains running daily to Philadelphia vitalized the economy as farmers switched crops from wheat and corn to higher priced tomatoes, strawberries, peaches, and other perishables."
National Register Historic District (p. 6-5) - "The main line track north of the depot was double tracked just before World War I. Built in 1856, the rail station is a reminder of the importance of the railroad to the Western Sussex area. After it was built, new trade routes opened northward, and these new routes helped to change the

character of the area's agricultural production. In addition, any town that secured a rail station was guaranteed designation as an important trade center. Seaford benefited from the resulting prosperity. The original station was destroyed by fire in the early 1900's. The second station, still in use today, was built in 1902 adjacent to the site of the old station. Originally, the railroad was used for passenger, freight, and mail service. Passenger service was discontinued in 1965. The freight trains were used to carry local produce, goods, and seafood. Today, the railroad is used mainly to haul local grain, chemicals, liquid propane, coal, wood, and supplies for the Invista plant."

Providers (Freight) (p. 8-7 – 8-9) - "The Maryland and Delaware Railroad Company (MDDE) is a short line railroad operating on the Delmarva Peninsula for over 40 years and headquartered in Federalsburg, Maryland. Currently, the MDDE operates over 120 miles of track in the States of Maryland and Delaware. About 16 of those miles are in Delaware. Primary commodities carried by MDDE are grain related, but they also haul fertilizer, gluten, canola, lumber, drywall, paper products, wax, steel, propane, and other chemicals.

"The Delmarva Central Railroad Company (DCR), a subsidiary of Carload Express Inc. now operates 188 miles of line in Delaware, Maryland, and Virginia. DCR also has a direct connection to the North American network through Norfolk Southern Railway. In 2016, DCR took over the Norfolk Southern-owned railway from Porter, Delaware, to Pocomoke, Maryland, and from Harrington to Frankford. In 2018, the company added the track from Pocomoke to Hallwood, Virginia, and in 2019, the Delaware lines from Ellendale to Milton and Georgetown to Harbeson joined the railroad.

"DCR's primary commodities include stone and aggregate for home and road construction and propane, which fuels many homes in southern Delaware. Given that the Delmarva Peninsula is home to the broiler chicken industry, it also hauls agricultural products. In most cases, DCR delivers the railcars directly to facilities on customer sidings — offshoots from the main rail. DCR rolls cars right up to a poultry processor's feed mill five or six days a week.

"There is a transload terminal in Gravel Hill, between Harbeson and Georgetown. In 2019, DCR opened the Seaford Transload Terminal in Seaford Industrial Park to serve customers that previously trucked liquid feed ingredients from outside Delmarva. To accommodate the terminal's first customer, a roadway was constructed next to the existing rail siding to facilitate direct railcar-to-truck transloading of the liquid. A few months later, a piping and-pump system was installed to allow DCR to unload railcars directly into two 30,000-gallon heated and insulated tanks, which were installed for a second customer. Due to the efficient infrastructure, trucks can fill up on demand and make deliveries to local customers.

"Expansion of the Seaford Transload Terminal was crucial to support the local and regional economy with providing additional growth opportunities for the industrial and manufacturing industries. As shown on the map image below, the Seaford area supports rail services for the east, west, north, and south."

MPO Notes - Chapter 5 (Economic Development) includes Table 5-7 which lists Commercial Redevelopment Projects completed since 2008. Among those redevelopment projects is Carload Express located at 100 Industrial Park Boulevard in Seaford (p. 5-8). Chapter 8 (Transportation) references the 2015 Delmarva Freight Plan and the 2011 Delaware State Rail Plan; this section includes the goals of these two documents. The Delaware Coastal Airport is also noted for having rail access. Chapter 8 offers excellent descriptions of the current railroad providers, the history of DCR's presence on the Delmarva Peninsula and the most prominent uses for rail in the region. Chapter 9 (Environmental Protection) lists the Railroad Lines among infrastructure that would most likely experience negative impacts of sea level rise, though this is only a passing reference. Chapter 12 (Implementation) does not identify any goals or specific projects related to rail service or the existing railroad. The Annexation Plan [Chapter 14 (Appendix) - Map 12] identifies significant acreage to the north of Seaford town limits on both the easterly and westerly sides of the railroad for possible annexation. The Annexation Plan proposes to designate all of these acres for "Agricultural/Residential" uses. The Plan talks about the history of rail in the municipality and the existing infrastructure, but does not convey the need to preserve the rail corridor or develop new uses for it.

Municipality	Revised Comp Plan Certified	Comp Plan Map	Highlights Rail uses?	Potential of rail spur line?
Selbyville	2020	Selbyville	No	No

Location & History (p. 15) - "Sampson Selby was responsible for the name Selbyville. In 1842, he began to mark packages for delivery to his country store, "Selby-Ville". The development of Selby-Ville accelerated in 1842 when the Frankford and Breakwater Railroad extended shipment of strawberries to the Town."
Community Design (p. 16) - "The Town of Selbyville has long been one of the main service areas for local residents and tourists who live and play on the Eastern Shore of Delaware. Food stores, lumber mills, railroad shipping areas for strawberries, and a source of employment in the poultry industry were available in Selbyville many years ago. Today, Selbyville has a different look, but still offers some of the same advantages and many more services to the local and beach areas."
Freight (Transportation) (p. 59) - "South of Dagsboro, the Delmarva Central Railroad transitions to the Maryland and Delaware Railroad, which bisects Selbyville. This is one of several rail freight lines in Sussex County. Most rail shipments are inbound, carrying grain and other agribusiness imports."
Railroad Facilities (Transportation) (p. 60) - "The Maryland and Delaware Railroad Company is a Class III short-line railroad, formed in 1977 to operate several branch lines of the former Penn Central Railroad in both Delaware and Maryland. These branches were omitted from the system plan for Conrail in 1976 and would have been discontinued without state subsidies. As an alternative to the higher cost of subsidizing Conrail as operator of the branch lines, the Delaware and Maryland governments selected the Maryland and Delaware Railroad Company (MDDE) to serve as the designated operator. The railroad did not own any of the track it uses until 2000, when it acquired a line between Frankford, DE and Snow Hill, MD. Today, the railroad operates on 120 miles of track and runs out of a restored station in Federalsburg, MD. The Snow Hill Line intersects the Delmarva Central Railroad in Frankford, DE and continues south towards Snow Hill, MD."
MPO Notes - Chapter 13 (Implementation) includes specific Goals and an Action Plan. It does not include any goals or action steps relative to railroads or rail services. The Annexation Plan reflects substantial expansion potential over the planning period. North of Selbyville town limits, areas adjoining the existing railroad corridor on the easterly and westerly side of the right-of-way are identified for potential annexation. Most of these areas are proposed for future "Residential" uses with the exception of a sizable area proposed for future "Commercial" uses situated between easterly right-of-way line of US RT 113 and the westerly right-of-way line of the railroad. Further north on both sides of the railroad, and west of the present town limits are lands designated for future annexation and "Mixed Residential/Commercial" uses.

Sussex County	2019	Sussex County	Yes	Yes

The Sussex County Landscape (Introduction) (p. 1-1) - "Local rail lines in the County connect to the Norfolk Southern Rail Network."
Greenways and Trails (p. 6-7) - "The Junction and Breakwater Trail connects southwestern side of Cape Henlopen State Park with Hebron Road in West Rehoboth with 6 miles of crushed stone. It takes its name from the former Penn Central Rail Line that ran between Lewes and Rehoboth in the mid 1800's. As of 2018, this is the longest rail-trail in Sussex County and Delaware. Northern trail access points in Lewes include from Kings Highway opposite the Cape Henlopen High School and from Gills Neck Road, west of the entrance to the Hawks Eye Community. At the Gills Neck Road trailhead, there is access to the Georgetown-Lewes Trail. West Rehoboth access is from Hebron Road, just off Route 1. No parking is available at these access points. Trail access from the historic Wolfe House in Rehoboth Beach includes a 56-car parking lot, an information center, and a bike rack. The trail includes a reconstructed 80-foot railroad bridge across Holland Glade, a dedicated bike path through the Hawkseye and Showfield developments, and a bathroom, water station and bike repair station adjacent to the Lewes Library. The Junction and Breakwater Trail, now complete, represents an excellent partnership among state, county and municipal governments, as well as developers.
"Georgetown-Lewes Rail/Trail opened in 2016 with one-mile of off-road, paved trail from Gills Neck Road to Savannah Road. It will eventually span 17 miles to link Cape Henlopen State Park in Lewes with South Railroad Avenue in Georgetown. Junction and Breakwater Trail is accessible from the Georgetown-Lewes trail along Gills

Neck Road. Phase I follows the Delaware Coast Line Railroad. Originally, it was planned for the entire trail to be built alongside the railroad, however a section of tracks has been decommissioned and, starting in 2018, several miles of track will be removed to make way for Phase II of the trial. Phase II will run from Savannah Road to Minos Conway Road in Lewes. The trail, once complete, will be the longest multi-use trail in Delaware."

Economic Development (p. 9-2) - "Local rail lines feed into the Norfolk Southern rail system, with connectivity to the regional CSX network."

Economic Base and Employment (p. 9-10) - "Sussex County's early industry and commerce were centered on agriculture and livestock. The local economy expanded due to the introduction of the railroads, which helped the development of inter-state trade and the local tourism industry."

Industrial Parks and Business Parks (p. 9-26 – 9-27) - "Delaware Coastal Business Park (Georgetown, DE) - With 19 parcels spread over 175 acres the industrial park is an important component of the Delaware Coastal Airport's operations. In fact, the park's largest tenant is ALOFT AeroArchitects who performs maintenance on the Boeing 737. The park also houses Pats Aircraft, Eastern Shore Poultry Co. Inc., Hollingsead International, Delmarva Insulation, DMI, and other large businesses. In addition to quick access to Route 9, the park is also connected to the local railroad system."

Brief History of Sussex County (p. 10-2) - "The coming of steamboats in the 1830s and 1840s and the construction of the first railroads in the 1850s and 1860s spurred an uptick in economic growth. The Delaware Railroad reached Seaford in 1856 and Delmar by 1859. The Delaware, Maryland, and Virginia Railroad ran from Harrington to Milford, to Georgetown in 1869. A third line, the Junction and Breakwater Railroad, was constructed between 1859 and 1868 to Lewes; a spur line eventually connected Rehoboth in 1878. These railroads stimulated changes in agriculture and industry, and the growth of new towns."

MPO Notes - Chapter 10 documents properties in Sussex County listed on the National Register of Historic Places including the Milford Railroad Station and the Seaford Station Complex and Railroad Bridge. Chapter 13 (Mobility Element) provides a Map Exhibit (Fig 13.2-6) showing locations of rail freight lines in Sussex County and indicates that most rail shipments are inbound, carrying grain and other agribusiness imports. Section 13.6 of the Comprehensive Plan sets forth specific transportation goals, objectives and strategies for Sussex County including:

- **Objective 13.5.1** Support investments that increase the efficiency of freight movement, which is crucial to commerce in the County.
- **Strategy 13.5.1.2** Support the implementation of the Delmarva Freight Plan in order to improve freight flow and reduce the impacts to County residents.
- **Strategy 13.5.1.3** Explore incentives for businesses to switch from truck to rail freight, which can reduce freight costs and road traffic congestion.
- **Strategy 13.5.1.4** Work with railroad partners to aid in their strategic planning efforts and to help identify potential rail customers.
- **Strategy 13.5.1.5** Explore the potential for rail infrastructure improvements at the Delaware Coastal Airport industrial park and possible connection to the Delaware Coastal Business Park.

Appendix D – Examples of Rail-Adjacent Housing

The following images are examples of rail-adjacent housing throughout Delaware, with examples from all three counties. A description of the location is provided, with information on when the homes were built, how many units they consist of, how close the properties and homes are to the railroad tracks, and whether there are other features (such as pools or sheds) close to the rail right-of-way. This appendix is intended to highlight the dangers associated with building residential housing close to the railroad tracks, as well as the significant loss in available land with rail access.

Drone photographs were provided by the following DelDOT staff:

- Lennox Knox, DelDOT UAS Program Manager / Survey UAV Program Manager / Chief Survey CADD Technician
- Kyle Watt, Survey UAV Mapping Coordinator / Survey Stakeout Coordinator

Townsend Village (Townsend)



This neighborhood, located on both sides of the railroad tracks in the municipality of Townsend, is one of the most relevant examples of residential development that does not accommodate the needs of the rail. These houses were built between the late 2000s and early 2010s. On the west side of the tracks there are 25 houses adjacent to the rail, and on the east side there are 26 adjacent houses. Although there is a buffer of trees in place, the houses are still close to the tracks (less than 100' between the house and the tracks in many cases), and the trees would not protect these homes in the event of a derailment. There are also pools, back porches, and other personal property close to the tracks.

The fact that the entire rail frontage on both sides of the tracks was used for residential development suggests the needs of the rail were not considered during the process of designing and building this neighborhood. This is something that municipalities should not allow. As stated previously in this study, not every rail-adjacent parcel can be used for rail-supported industrial uses; however, residential development is the least compatible type of land use on parcels adjacent to active railroads, and if this option is pursued despite the risks, then the appropriate setbacks need to be in place.





Bergmont Woods (Smyrna)



This subdivision was built in the late 2010s. It contains ten (10) houses directly along the rail on the eastern side of the tracks. While there is no planted buffer in place, a pedestrian pathway separates the backyards of these houses from the tracks. According to online mapping tools, there is approximately 50 feet of space (including the pathway) between the property lines for the residences and the rail right-of-way, though some of the properties' fences are located less than 50 feet from the right-of-way. The railroad tracks are positioned on the eastern side of the right-of-way, putting the passing trains very close to these homes.

The pedestrian pathway might offer some space between the tracks and the houses, but it does not help with noise reduction or shielding the houses from derailed train cars. In cases such as this one, trees should be planted to provide a more adequate buffer between uses.



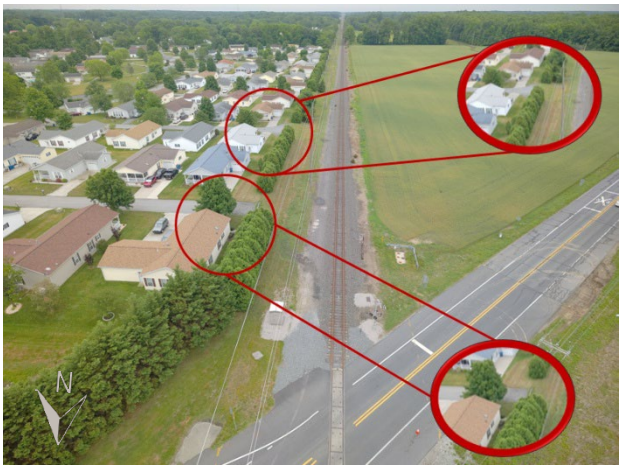


Barclay Farms (Camden)



This neighborhood, located on a single parcel of land, is located in the Town of Camden. It was built in the early to mid-2000s. It contains 13 houses directly along the rail on the eastern side of the tracks. A row of trees has been planted behind each of the homes. However, there is considerably less than 50 feet of space between the roof of each home and the rail right-of-way, sometimes as little as 20 feet of space. There are also dead-end streets that terminate nearly at the railroad tracks, which could contribute to trespassing and safety issues. This is a prime example of what should not be done when constructing a residential neighborhood close to an active rail line, as there is virtually no separation from the trains that pass by each day.

Also note that the parcel on the opposite side of the tracks is zoned Single-Family Residential (RS1), and therefore it has a high probability of being used for residential development in the future, if measures are not taken to preserve it. Residential zoning is the most incompatible zoning category adjacent to active railroads, but this is becoming an increasingly common practice throughout each of Delaware's three counties.





Tamarac (Camden)



The outer ring of this neighborhood, known as the Tamarac subdivision, was built in the early 2000s. The inner ring, known as the Burwood subdivision, was built between the 1970s and 1990s. The street named West Darby Circle, which makes up part of the neighborhood's outer ring, abuts the railroad tracks on their eastern side. One of the features present in this neighborhood is a row of tall trees that provides a buffer from the tracks. Fencing is also used along portions of this frontage. Although the houses in Tamarac are positioned farther from the tracks than in similar neighborhoods, other features, such as storage sheds, swimming pools, and playgrounds, are positioned directly against the rail right-of-way (see photo examples).





St. Helen's Crossing (Millsboro)



This neighborhood in Millsboro, located on the southwest side of the railroad tracks, was constructed between the late 2010s and the late 2020s. Of the 20 separate townhouse buildings that make up the neighborhood, four (4) of them are within 150 feet of the railroad tracks, and one (1) of them is less than 100 feet away.

Across the tracks from St. Helen's Crossing is the Millsboro Little League complex, which consists of six (6) ball fields of varying sizes along with bleachers that abut the tracks. Although such facilities are not as widely discussed as residential development in terms of compatibility with the railroads, the fields' proximity to the tracks still poses its own risk, as a large number of people will gather at such places during scheduled events.





Westtown Village (Millsboro)



This neighborhood, at the southeast end of Millsboro's municipal boundaries, connects with the adjacent Millwood subdivision. It was built in the early 2020s, and it consists of single-family units. 13 of these units (on Windflower Drive) are built along the railroad tracks, and of these, all 13 are less than 100 feet from the tracks. There is also a community pool that is less than 50 feet from the tracks.

The distance between houses and railroad tracks may be inadequate, but this neighborhood does provide fencing along the rail right-of-way, which should act as a noise barrier and prevent trespassing. There are also rows of trees on either side of the fence; these will hopefully grow into mature trees and create further separation between uses.

An informal rail crossing is found at the end of Industrial Street, and while the property on the opposite side of the tracks has not been developed, it has been zoned for industrial uses. Further south from Westtown Village there is existing rail siding on a property used for concrete-mixing and other industrial operations.





Appendix E – Concepts to Consider for Rail-Positive Zoning

Concepts to Consider for Rail-Positive Zoning

Purpose: To utilize a new zoning classification that falls under industrial use, but is specific to the needs of rail. (It is important to make this distinction, as the needs of rail-supported industrial use are more specific than industrial use, and its impacts are often unique to land adjacent to railroads.)

Outcome: Land that falls under this zoning classification will be set aside for rail-supported industrial and agricultural use, and may not be utilized for residential, commercial, or non-rail industrial purposes. This is intended to preserve land for rail-supported industrial and agricultural use and reduce the likelihood of conflict between industrial and residential areas. Zoning may be re-assessed in the future if rail-supported industrial and agricultural use is no longer applicable to a certain parcel.

Restrictions: New zoning classification may only be implemented in areas that provide adequate rail access and meet the other necessary criteria. In addition, parcels of land that are already in use for non-rail purposes are not suitable for this zoning classification.

Needs: It is important for municipalities to consider the needs of each parcel when re-zoning for rail-supported industrial and agricultural use. These may include additional infrastructure such as roads and equipment to help with the transporting of goods, security measures such as fencing and cameras, and barriers such as vegetation for aesthetic or noise-reduction purposes.

Buffer: In addition to the new zoning, a buffer zone or setback may be implemented to separate rail-specific parcels from other areas of land. Municipalities have the option to create rules for rail-specific buffer zones: for example, it may be decided that all re-zoned parcels of land must have a buffer of at least 20 feet, or that the buffer zones must include vegetation or other barriers to prevent noise pollution.

Consequences: It is expected that the municipality consider current and future use of adjacent land, so that negative consequences (noise pollution, air pollution, changes in safety, etc.) may be mitigated. NOTE: This section contains further details on land uses and conflicts adjacent to freight activity.

Additional steps: Zoning changes are most effective when carried out in tandem with long-range planning, efforts towards mitigation, and education and outreach. The zoning process is one of many steps that may be utilized to preserve land for rail-supported industrial and agricultural use. NOTE: This section contains further details on steps to follow.

Sample Process to Facilitate a Zoning Change

The following is a series of recommended steps that may be used by municipalities when changing zoning to rail-supported industrial and agricultural use. It serves as a loose template rather than a rigid format, as certain steps may not be applicable or are not appropriate for specific circumstances.

 **Noise Sensitive Uses**	Dwelling units (residential, motels, etc.); educational uses (childcare, schools, colleges, etc.); libraries; hospitals and other residential health care providers; playgrounds.
 **Light Sensitive Uses**	Dwelling units (residential, motels, etc.); and hospitals and other residential health care providers.
 **Vibration Sensitive Uses**	Dwelling units; educational uses; vibration sensitive industries (such as precision high-tech industry); all buildings not constructed to withstand the fatigue caused by rail vibrations.
 **Pollution/Air Quality Sensitive Uses**	Dwelling units (residential, motels, etc.); medical (hospitals and other residential health care providers); educational(childcare, schools, colleges, etc.); park and recreational facilities.
 **Uses Requiring Potentially Incompatible At-grade Crossings**	Dwelling units; educational uses; libraries; hospitals and other residential health care providers; commercial uses; emergency services; park and recreational facilities.
 **Uses Associated with the Potential for Dangerous Trespass**	Dwelling units; education uses (especially childcare facilities and schools); libraries; playgrounds; commercial uses.
 **Time Sensitive Uses**	Night-time sensitive uses*; dwelling units, hospitals and residential care facilities.
 **Traffic and Congestion Sensitive Uses**	Dwelling units; emergency service provider uses; residential health care facilities.
 **Height Sensitive Uses**	Residential and commercial uses that may impact approach and landing flight paths.

A list of land uses and associated conflicts related to freight. Source: National Cooperative Freight Research Program (NCFRP) (2012) (link).

Questions to Consider Before Pursuing a Zoning Change

- How exactly will the land be used in the short-term and the long-term? Does this align with the community's goals?
- How have other municipalities carried out a similar change in zoning?
- What additional information is needed to understand current and future land use?
- Is there existing infrastructure on the parcel? How much additional infrastructure would be required for industrial and agricultural rail use?
- How will community members feel about the proposed changes? How can their voices be heard?
- What impacts, positive or negative, will come out of the change in zoning?
    - Social: changes in vehicle traffic, vehicle accessibility, noise pollution, environmental justice, etc.
    - Safety: changes in safety of surrounding area (e.g., changing risk of injury, increased train activity)
    - Environmental: changes in air pollution, harmful runoff, removal of vegetation, erosion, etc.
    - Financial: costs associated with rezoning, building of infrastructure
    - Economic development: opportunity for rail-supported uses to locate in the community

Reminders About the Zoning Process

It is important to remember that the process and outcome for changing zoning to rail-supported industrial and agricultural use will differ between municipalities. One community's approach to the issue may not be perfectly suited for use elsewhere, and the approach may need to be adjusted. Despite this, municipalities will benefit from looking to their neighbors for ideas, or even consulting case studies at the national or international level. By understanding which strategies were successful and which needed improvement, the transition to new zoning could avoid many of the common obstacles, such as conflict with nearby residential areas.

Municipalities should also remember the limitations of zoning for protecting rail use. First, zoning is a proactive tool, and therefore it may be limited in its scope if a parcel of land adjacent to railways is already being used for residential or commercial purposes. Second, the ability to enact zoning extends only as far as the municipality's jurisdiction. This means if a parcel or

selection of parcels adjacent to railroad tracks crosses municipal boundaries, the changes in zoning would possibly require the cooperation of several municipalities.[44]

Additional Planning and Zoning Steps

Once the change in zoning is completed, various impacts (both positive and negative) are likely to arise. However, it is possible for land to be used for industrial use while still reducing conflicts with neighboring communities. These "good neighbor" practices are not always applicable to every situation, though there are many suggestions that are relevant to rail-supported industrial and agricultural zoning. Such practices may include the following:

- *Community planning:* Relevant planning strategies involve featuring rail-supported industrial and agricultural use in comprehensive plans, carrying out local studies on rail use, and involving the public and relevant stakeholders throughout the process. Community and stakeholder goals must always be considered as the new zoning is pursued.[45]
- *Buffer zones:* Buffer zones are a tool used for separating areas with different zoning, such as freight and non-freight areas. They can be beneficial when the base zone standards do not provide enough separation. There is typically little to no development within these zones, though vegetation may be included. While buffer zones can be useful tools in some circumstances, they also have the potential to reduce the availability of useful land. Therefore, it is important to first determine whether the benefits of a buffer zone will outweigh the costs of restricted development.
- *Security:* Tools such as earthen berms, security fences, signage, and security cameras can decrease trespassing in areas around railroad tracks, which reduces the likelihood of pedestrian injury.[46] In addition, it has been found that by improving pedestrian access in areas around railroad tracks (especially between destinations such as schools and commercial centers), residents are more likely to avoid the tracks.
- *Noise barriers:* Noise from railways may include train engines, brakes, horns, whistles, and construction and maintenance, as well as many others. To address these issues near places where people sleep or work, municipalities may construct berms, walls, or high

[44] *Protecting and Preserving Rail Corridors Against Encroachment of Incompatible Uses*. Center for Transportation Research at The University of Texas at Austin (UT-CTR) (2008). https://library.ctr.utexas.edu/ctr-publications/0-5546-1.pdf.
[45] "Overview of Preservation and Protection Strategies and Freight-Compatible Development." *Preserving and Protecting Freight Infrastructure and Routes*. National Cooperative Freight Research Program (NCFRP) (2012). https://www.nationalacademies.org/read/14650/chapter/7.
[46] *FHWA Freight and Land Use Handbook* (web archive). Federal Highway Administration (FHWA) (2012). https://web.archive.org/web/20250315182316/https://ops.fhwa.dot.gov/publications/fhwahop12006/fhwahop12006.pdf.

vegetation, which could deflect some of the incoming noise. It should be noted that the effectiveness of noise barriers is frequently debated, and the results may be subjective or dependent on the people living or working in their proximity. The barriers' effect on neighborhood aesthetics is another factor for municipalities to consider: While walls may be the most effective noise barrier available, they are also more noticeable than berms and vegetation.[47]

- *Noise abatement policies:* These requirements may be enforced for new or existing homes adjacent to rail corridors. The outcome is an improvement in soundproofing for homes, which will reduce the impacts of noise pollution on residents. For example, municipalities may require a minimum sound transmission class for walls and windows, a minimum amount of insulation within the walls, or the removal or covering of openings in the walls or roofs. These steps could also be used for noise-sensitive locations such as churches, hospitals, schools, or libraries. In addition to these steps, noise surveys may be carried out in communities to monitor complaints and areas in need of attention.
- *"Quiet" rail zones:* To address the specific issue of whistle noise, some municipalities have established "quiet" or "no-whistle" rail zones. This does not simply mean whistles are banned within a specified area: More specifically, the change involves safety improvements such as redesigned highway rail at-grade crossings and street closures. With these improvements in place, there is a reduced need for whistles, which in turn reduces unwanted noise.



Figure 23: A "No Trespassing" sign next to a train car. Source: Federal Highway Administration (FHWA) (web archive) (link).

Municipalities are encouraged to work with freight entities and DelDOT to carry out these steps when applicable. For more information on "good neighbor" practices and the impacts of rail, consult the various sources listed within this study.

[47] "Rail Relationships: A quick look at best practices for planning and development near freight train operations." American Planning Association (APA) (2017). https://www.planning.org/planning/2017/apr/railrelationships/.

Education and Public Outreach

In addition to enacting zoning changes and making physical changes to the area, it is important that municipalities communicate their goals with the community. This involves seeking public input beforehand, remaining transparent during the process, and gathering feedback in the months and years afterwards to track outcomes.[48]

Tools for community awareness include putting up signs, advertising in newspapers and through social media, and making previous studies widely available. Surveys are useful for gauging public opinion, though their effectiveness depends on the number of respondents. Finally, hosting round tables and working groups will allow the public to provide input and share concerns from the process's beginning until its conclusion.

Compatible Use and "Good Neighbors"

Through discussions with stakeholders, it was found that further details should be given on the steps to foster compatible use between railroads and communities. Ideally, each of the parcels adjacent to the rail would be preserved for rail-supported industrial and agricultural uses or at minimum not designated for incompatible uses. However, there are times when this will not be possible, such as when residential or commercial uses are already present on the adjacent parcels. In these cases, it is critical that developers take the proper steps to be "good neighbors" for the railroad and prevent conflict as much as possible.

Below is a checklist that developers should incorporate into their site plans for residential and commercial development close to active rail corridors. Further information on each topic can be found in the body and appendices of this study.

Task	Recommendations	Benefits
Setbacks	An unsubdivided setback of at least 150 feet from the rail right-of-way to the boundary of the parcel being developed	Built structures are less at risk from a derailment; better conditions for rail
Buffer zone	The buffer zone should contain physical and noise barriers but should not be used for development	Built structures are less at risk from a derailment; fewer noise impacts
Physical barriers	Physical barriers may include fences, walls, trees and shrubs, earthen berms, or other means of separating the two uses	Enhanced safety for development and railroad, reduced likelihood of hitting a pedestrian, reduced trespassing

[48] "Municipal Implementation Tool #19: Freight Transportation." Delaware Valley Regional Planning Commission (DVRPC) (2010). https://www.dvrpc.org/reports/mit019.pdf.

Noise barriers	Noise barriers may include walls, trees and shrubs, or similar measures; noise and vibration analysis should also be conducted	Reduced impacts of noise pollution from the railroad on surrounding uses
Road crossings	Work with the state DOT to upgrade locations in which the railroad tracks intersect with a roadway, as the new development could increase both vehicle and pedestrian traffic	Enhanced safety for development and railroad, reduced likelihood of a crash
Coordination	Communicate with the railroad companies and other stakeholders before the site plan is approved, in order to address potential conflicts at the start of the process	Conflicts are less likely to occur and everyone involved will have a more favorable outcome

Appendix F – Sample Rail Overlay Districts and Related Policies

Among the findings from the previous study were examples of rail overlay zoning districts used by municipalities in the United States and Canada. The most effective policies were included as an appendix in the document to serve as examples for how rail-specific zoning could be implemented in Delaware. These overlay districts often include setback requirements to prevent conflicting uses, and they provide further details on which uses are permitted within these areas. In addition to the two examples of rail overlay districts from the previous study, this appendix also provides summaries of other zoning measures and rail-specific municipal code that have been utilized elsewhere.

Railroad Industrial Overlay District (City of Nevada, Iowa)

The following is a copy of the language used in the RR Railroad Industrial Overlay District for the City of Nevada, Iowa. It requires a setback of 100 feet for buildings adjacent to the railroad right-of-way. It also lists the permitted uses within the Limited Industrial zoning category, which helps mitigate the presence of incompatible uses near the railroad tracks. (Certain uses, such as offices, food sales, light industry, and warehousing, require a special permit; whereas railroad facilities, utilities, and construction yards do not.) The full text of this document is available online through the City's Code of Ordinances.[49]

As a city of approximately 7,000 residents in a predominantly agricultural area, and with freight rail lines that direct trains in several different directions through the community, the City of Nevada has some similarities to the small towns of Delaware. This means the Delaware municipalities referenced in this study could potentially adopt a similar policy to that of the City of Nevada, a community that already has language for an overlay district with mandatory setbacks.

[49] 165.12 RR Railroad Industrial Overlay District. Chapter 165 Land Development – Zoning Regulations. City of Nevada (2006). https://codelibrary.amlegal.com/codes/nevada/latest/nevada_ia/0-0-0-4231.

165.12 RR RAILROAD INDUSTRIAL OVERLAY DISTRICT.

The RR Railroad Industrial Overlay District is intended to facilitate the transition of residential neighborhoods located along the railroad corridor to Limited Industrial. The District limits permitted uses to minimize traffic generation and the density of workers or customers. It also provides increased rear yard setbacks.

1. Permitted Uses. For properties zoned LI Limited, the following uses are permitted:

Civic Uses:
Administration
Guidance Services **(S)**
Cultural Services **(S)**
Maintenance Facilities
Park and Recreation
Postal Facilities **(S)**
Safety Services
Utilities

Offices Uses:
General Offices **(S)**
Financial Offices **(S)**
Medical Offices **(S)**
Corporate Offices **(S)**

Commercial Uses:
Veterinary Services
Ag Sales/Service **(S)**
Auto Rental/Sales
Auto Services
Body Repair
Business Support Services **(S)**
Communication Service
Consumer Service
Construction Sale/Service
Convenience Storage
Equipment Rental/Sales
Equipment Repair
Food Sales (Conv.) **(S)**
Kennels **(S)**
Laundry Services
Personal Improvement **(S)**
Personal Services
Pet Services
Research Services **(S)**
Surplus Sales **(S)**
Trade Services
Veh. Storage (Short-term)

Parking Uses:
Off-Street Parking
Parking Structure

Industrial Uses:
Construction Yards
Custom Manufacturing **(S)**
Light Industry **(S)**
General Industry **(S)**
Recycling Collection
Recycling Processing
Warehousing (Enclosed) **(S)**
Warehousing (Open) **(S)**

Transportation Uses:
Railroad Facilities
Transportation Terminal **(S)**

Miscellaneous Uses:
Alternative Energy/WECS **(S)**
Production Devices
Amateur Radio Tower
Communications Tower

(S) *Requires a Special Permit*

2. Site Development Regulations.

A. All requirements pertaining to the LI Limited Industrial District apply to the Overlay District.

B. A 100-foot building setback is required adjacent to railroad right-of-way.

Railway Setback Overlay Zone (City of Regina, Saskatchewan)

The following is a copy of the language used in the Railway Setback Overlay Zone for the City of Regina, Saskatchewan, Canada. It details the setback requirements for new development adjacent to rail infrastructure, the minimum setbacks being 300 meters (approximately 1,000 feet) from a freight rail yard, 30 meters (approximately 100 feet) from the main rail line, and 15 meters (approximately 50 feet) from a branch or spur rail line. As described in the document, the Railway Setback Overlay Zone is intended to improve public safety around active freight, mitigate conflict between land uses, and reduce the impact of noise pollution. The full text of this document is available in the City of Regina's zoning bylaw.[50]

Regina's overlay zone is an example of how facilities could have different minimum setbacks depending on their type. For example, a rail yard could have a greater setback than a rail line, and the setbacks used for rail lines could be determined by their classification and the daily volume of trains. Although the City of Regina has a much larger population than the municipalities of Delaware, this general concept is still applicable.

[50] "Chapter 8 Overlay Zones." *Bylaw No. 2019-19*. City of Regina (2019). https://openregina.ca/dataset/bylaw-no-2019-19-the-regina-zoning-bylaw-2019/resource/65bc86a2-3480-416a-b460-fe4b37531f0c.

PART 8L
RS – RAILWAY SETBACK OVERLAY ZONE

8L.1 INTENT

(1) The Railway Setback Overlay zone is intended to establish setback requirements for residential buildings and structures located on properties adjacent to existing or future rail rights-of-way.

(2) The setback is intended to provide adequate safeguards from potential conflicts between rail rights-of-way and residential buildings and structures to manage public safety and noise attenuation.

8L.2 APPLICATION

(1) The Railway Setback Overlay zone shall apply to any lot where a dwelling may be developed that is within the close proximity to a lot that contains existing or future rail rights-of-way.

(2) The overlay zone shall be in addition to and shall overlay all other zones where it is applied so that any parcel of land lying in the overlay zone shall also lie in one or more of the other zones provided for by this Bylaw. The effect is to create a new zone, which has the characteristics and limitations of the underlying zones, together with the characteristics and limitations of the overlay zone.

(3) Unless specifically exempted, the regulations, standards and criteria of the overlay zone shall also supplement and be applied in addition but not in lieu of any regulations, standards and criteria applicable to the underlying zone.

(4) In the event of conflict between the requirements of the overlay zone and those of the underlying zone, the overlay zone requirements shall apply, unless specifically exempted.

(5) In the event of conflict between the requirements of this overlay zones and another overlay zone, the overlay zone with the most stringent requirements shall apply, unless specifically exempted.

8L.3 LAND USE REQUIREMENTS

3.1 PERMITTED AND DISCRETIONARY LAND USES

(1) All permitted uses in the underlying zone are also permitted in this zone.

(2) All discretionary uses in the underlying zone are also discretionary in this zone.

3.2 PROHIBITED LAND USES

All prohibited uses in the underlying zone are also prohibited in this zone.

8L.4 DEVELOPMENT STANDARDS

(1) Subject to subsection 8L.4(2), the development standards of the underlying zone will apply, except for the application of minimum yard setbacks.

(2) Pursuant to subsection 8L.4(1), for lots adjacent to railway operations, the minimum principal building setback from the property line of the lot containing the railway operations shall be as specified in the applicable secondary plan, concept plan or as follows where not specified in a secondary plan or concept plan:

(a) where a lot is adjacent to a freight rail yard, the minimum building setback shall be 300 metres to the nearest building face;

(b) where a lot is adjacent to a main rail line, the minimum building setback shall be 30 metres to the nearest building face; and

(c) where a lot is adjacent to a branch or spur rail line, the minimum building setback shall be 15 metres to the nearest building face.

(3) Where a main line, branch line, and/or spur line are co-located on the same section of a lot, the larger setback distance in subsection 8L.4(2) shall apply.

(4) Where the minimum setback requirements are not specified in a secondary plan or concept plan, the Development Officer may reduce the minimum setback requirements in subsection 8L.4(2) where:

(a) on an existing vacant lot, development conforms to the standards of the underlying zone, and

(i) the applicant can demonstrate to the Development Officer's satisfaction that other appropriate mitigation measures are in place; or

(ii) a Development Viability Assessment conducted by a registered Planner or Engineer is provided; or

(b) redevelopment of an existing site does not reduce the previously approved setback for the existing principal building on site from the property line of the lot containing the railway operations.

(#2024-9, s. 220, 2024)

(5) Where the applicable setback standards for the underlying zone are greater than the standards established in subsection 8L.4(2), the standards of the underlying zone shall apply.

(#2022-30, s. 113, 2022)

Quiet Zones and Critical Railroad Crossings (City of Fort Worth, Texas)

The 2008 study by the Center for Transportation Research (CTR) provides examples of municipal code and related measures from various cities. One of the examples comes from the City of Fort Worth, Texas, where the advent of the railroad contributed immensely to its development and where freight continues to play a central role in the City's economy. Fort Worth utilizes a "quiet zone" program, which is permitted under the Federal Railroad Administration's (FRA) Train Horn Rule requirements. Under this program, the City can work with the FRA to establish areas in which train horns are prohibited. Doing so cuts down on excess noise in desired areas.[51] In lieu of the required train horn, the City and the FRA utilize various techniques to improve safety and prevent a collision, such as median barriers, wayside horns, four-quadrant gate systems, and street closures. Note that train horns will still be sounded, regardless of quiet zone regulations, if a pedestrian or wildlife is in the path of an approaching locomotive.[52]

Due to the high number of railroad crossings within its municipal boundaries, Fort Worth also maintains a list of at-grade crossings that create the greatest risk for locomotives, passenger vehicles, and pedestrians. A crossing is added to this list if it experiences an average of at least ten (10) train crossings each day, and at least 10,000 average annual daily trips (AADT). Crossings are then ranked based on a weighted criteria that includes train and passenger vehicle volume, population within a half-mile radius, number of crashes, and other factors. While not a part of the municipal code, this list is included in the City's *Master Transportation Plan*, and it is used to guide local, state, and federal efforts to implement measures that improve the safety of railroad crossings.[53]

Criterion	Data Source	Weight
Daily train volume	Federal Railroad Administration (FRA)	25%
Average annual daily trips (AADT)	TxDOT	25%
Population within half-mile radius	2020 U.S. Census	10%
School enrollment within half-mile radius	Texas Education Agency	10%
Emergency responder crossing interactions	TRAINFO / CoFW FD Dispatch Logs	10%
Responder delay potential	TRAINFO / CoFW FD Dispatch Logs	10%
Reported crashes	TxDOT	10%

Figure 24: The criteria used to evaluate the safety of at-grade railroad crossings in Fort Worth, Texas. Source: City of Fort Worth (link).

[51] *Protecting and Preserving Rail Corridors Against Encroachment of Incompatible Uses*. Center for Transportation Research at The University of Texas at Austin (UT-CTR) (2008). https://library.ctr.utexas.edu/ctr-publications/0-5546-1.pdf.
[52] "Railroad Program Overview: Including New Quiet Zone Establishment." City of Fort Worth. https://www.fortworthtexas.gov/files/assets/public/v/1/tpw/documents/tai1.pdf.
[53] *Master Transportation Plan*. City of Fort Worth (2026). https://www.movingamillion.org/.

Lot Orientation and Setbacks (City of Anaheim, California)

The CTR study also referenced the municipal code from Anaheim, California, which, at the time of publication, regulated the setback requirements for single-family residential lots. City Code §18.04.060 read as follows:

> Single-family residential lots adjacent to all arterial highways or railroad rights-of-way shall have a minimum depth of **one hundred twenty (120) feet** and shall not take vehicular access from the arterial highway.[54]

Note that §18.04.060 was amended in 2016, and the specific measurements regarding lot setback requirements were removed. Properties were still expected to maintain access to arterial highways and, presumably, the rail right-of-way. The code currently reads as follows:

> 18.04.060 LOT ORIENTATION.
>
> - .010 Lots Adjacent to Freeways or Scenic Expressways. Single-family residential lots adjacent to freeways and scenic expressways shall rear-on or side on the freeway or expressway.
> - .020 Lots Adjacent to Other Arterial Highways or Railroad Rights-Of Way. Single-family residential lots adjacent to all arterial highways, other than those described in subsection .010 above, or railroad rights-of-way shall not take vehicular access from the arterial highway.[55]

The City of Anaheim also has setback requirements for multi-family housing, as well as general requirements for the use of sound walls. The multi-family setback requirements read as follows:

> 18.18.070 MULTIPLE-FAMILY RESIDENTIAL ZONES – STANDARDS.
>
> - .020 Structural Setback. On all lots adjacent to freeways, expressways, arterial highways and railroad rights-of-way, buildings and mobile homes **shall be located no closer than fifty (50) feet to the right-of-way line**. Said setback may be used for landscaping, recreation and open space, or for open parking and vehicular accessways; provided that a minimum ten (10) foot wide screen planting, which may include trees and shrubs, a minimum thirty-six (36) inch high landscaped earthen berm, or any combination thereof, shall be maintained adjacent to the right-of-way line.[56]

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[54] *Protecting and Preserving Rail Corridors Against Encroachment of Incompatible Uses*. Center for Transportation Research at The University of Texas at Austin (UT-CTR) (2008). https://library.ctr.utexas.edu/ctr-publications/0-5546-1.pdf.

[55] 18.04.060 LOT ORIENTATION. City of Anaheim (Code Library) (2016). https://codelibrary.amlegal.com/codes/anaheim/latest/anaheim_ca/0-0-0-102740.

[56] "18.18.070 MULTIPLE-FAMILY RESIDENTIAL ZONES – STANDARDS. City of Anaheim (Code Library) (2023). https://codelibrary.amlegal.com/codes/anaheim/latest/anaheim_ca/0-0-0-103995.

Transit-Oriented Development (Montgomery County, Pennsylvania)

Montgomery County, Pennsylvania, is an example of a jurisdiction that has incorporated Transit-Oriented Development (TOD) into its planning. The County has developed an in-depth guide for its municipalities that facilitates the TOD process. The document includes model ordinances regarding design standards for buildings, transit stops, pedestrian facilities, and many other elements. The document also contains sample zoning, best practices, and tips for buffers and building setbacks.[57]

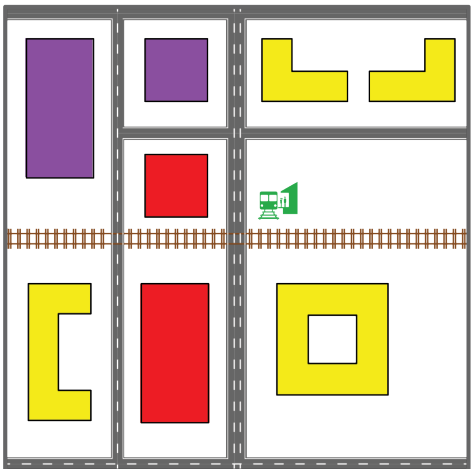


Figure 25: An example of a Regional Mixed Use Center, which is defined by high connectivity, walkable streets, and easy access to the transit center. Source: Montgomery County, Pennsylvania (link).

The core of this guide is the "station area typology", which is assigned to the half-mile radius surrounding each transit station. Typologies include Regional Mixed-Use Center, Town Center, Suburban Employment Center, Neighborhood Village Center, and Suburban Neighborhood. These categories are determined by the uses within the TOD area, and they inform the various improvements for the area such as building types, minimum buffer widths, location and amount of vehicle parking, and placemaking.[58]

Resources on TOD are included in this study because the topic may be more applicable to Delaware as new passenger rail connections are developed. It also relates to Delaware's active freight corridors because it may be possible for both freight and passenger trains to utilize the existing rail right-of-way, or the tracks could be separate facilities but close to one another. If this were the case, then a balance in uses would need to be achieved so that rail-dependent industries could continue to operate, while also coexisting alongside TOD areas and the housing within them.

[57] *Transit-Oriented Development Model Ordinance*. Montgomery County, Pennsylvania (2021). https://www.montgomerycountypa.gov/archival-document?id=11970.
[58] "Station Area Typology." *Transit-Oriented Development Model Ordinance*. Montgomery County, Pennsylvania (ArcGIS Experience Builder) (2021). https://experience.arcgis.com/experience/ab1284e74eb84cf78eedb513105bd2ba/page/Section-2---Station-Area-Typology.

Rail Policy Documents and Safety Envelopes (Calgary, Alberta)

The City of Calgary, Alberta, Canada, is home to six (6) different freight rail corridors that assist with the distribution of goods across North America. Following the deadly train derailment in Lac-Megantic, Quebec, in 2013, many Canadian cities, including Calgary, took steps to prevent loss of life and property damage in the event of future derailments. City officials developed several policy documents, including the Development Next to Freight Rail Corridors Policy and the Development Next to Freight Rail Corridors Policy Implementation Guide.

These documents addressed the specific risks facing each rail-adjacent parcel within the City and tied the recommended safety measures into the goals of the City's comprehensive plan. The Rail Policy document provides a complete list of requirements for rail-adjacent properties, as well as a list of "high-density," "sensitive," and "noise-susceptible" locations that should have additional treatments to address noise, vibrations, and safety. The Implementation Guide provides a map of freight rail corridors within the City, flow charts depicting the steps involved when building on a rail-adjacent parcel, and a description of the City's "safety envelope" policy.[59] Although Calgary is much larger than the communities in Delaware, these two documents are still excellent templates for any municipality that wants to develop its own rail policy.

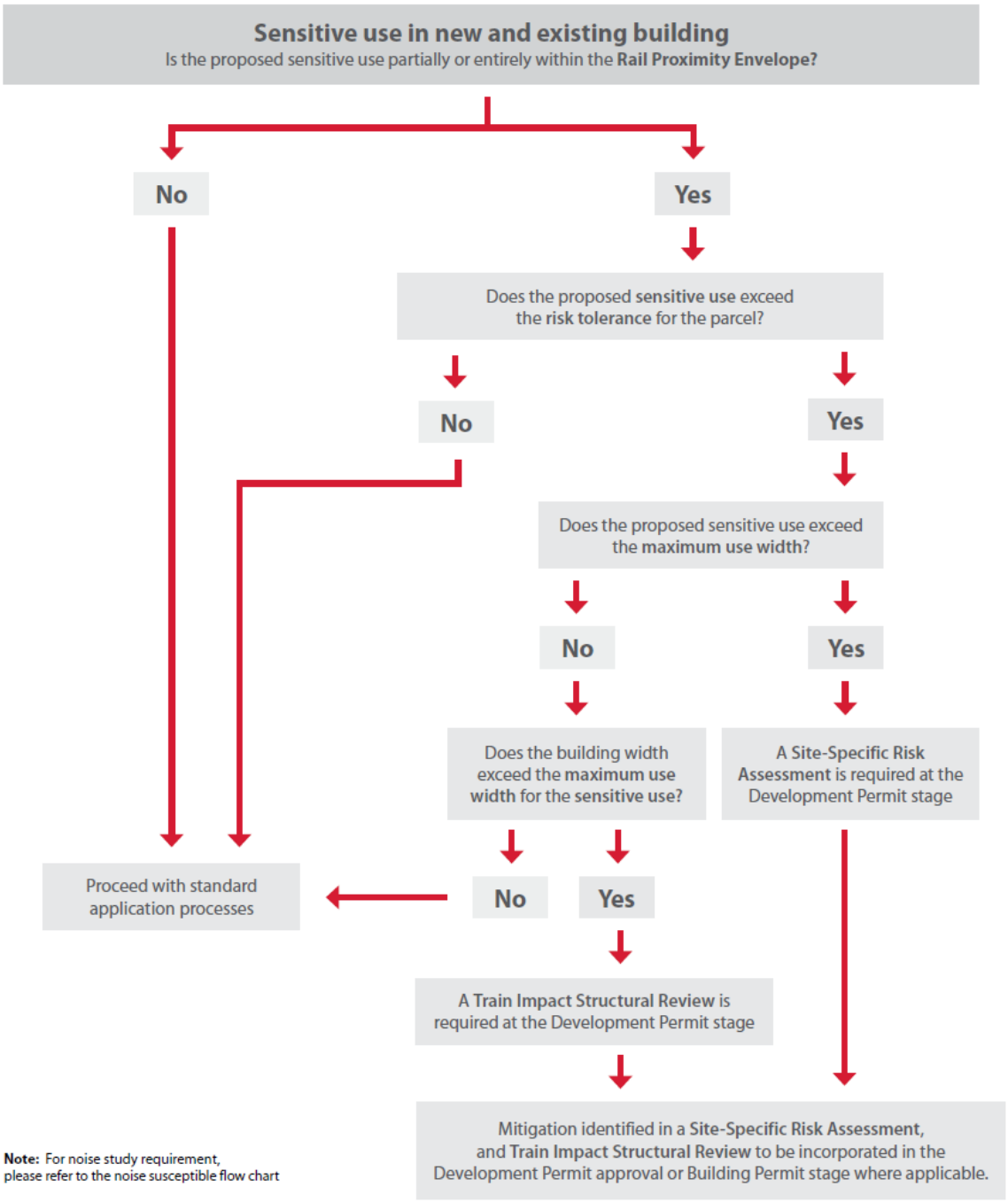
The safety envelope is a policy of the City of Calgary that warrants further description. This refers to a zone that is measured at 30 meters (98.4 feet) horizontally from the rail property line and seven (7) meters (23.0 feet) in height from grade. The area within the safety envelope is at increased risk from a derailment; this is based on the size, number, and speed of the train cars passing through Calgary each day.[60] Understanding the location of this zone is important for City officials when deciding whether a specific use should be permitted: for example, dwelling units, offices, hotels, and restaurants are all considered "high-density" uses that dramatically increase the risk posed by a derailment. Therefore, these uses are not recommended within the safety envelope. The risk tolerances for different uses are defined by the following factors:

- The number of people exposed to the potential risk of a train derailment;
- Ease of evacuation;
- Duration of exposure to the potential risk; and
- The occupants' ability to self-evacuate.

These documents also contain the policy surrounding a "noise envelope," the zone in which noise from a train will have the greatest impact. Uses that are sensitive to noise are regulated in a similar manner to high-density uses within the safety envelope.

[59] "Development next to freight rail corridors policy." City of Calgary. https://www.calgary.ca/development/railway-corridors.html.
[60] *Zoning Practice: Managing Development Along Freight Rail Corridors*. American Planning Association (APA) (2025). https://www.planning.org/publications/document/9303209/.

Flow chart 2: Sensitive use within the Rail Proximity Envelope



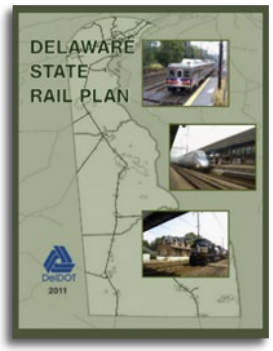
14 | Development next to Freight Rail Corridors Policy

Figure 26: Flow chart depicting how the City of Calgary determines whether a specific use is permitted within the rail safety envelope, and if so, whether additional steps are needed. Source: City of Calgary (link).

Appendix G – Relevant Resources

Delaware State Rail Plan (2011)

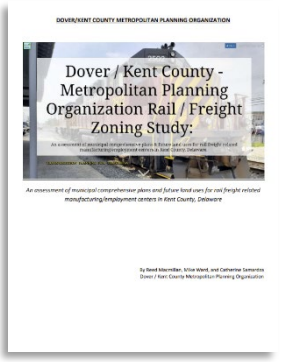
https://deldot.gov/Publications/reports/srp/pdfs/srp_final.pdf



The 2011 version of the *Delaware State Rail Plan* was put together by a wide range of stakeholders, each of whom is involved with Delaware's railroads in some capacity. The purposes of the document are to assemble relevant data and resources for stakeholders, identify rail infrastructure in the state that needs improving, and provide a detailed roadmap for meeting the state's rail-related goals. Identifying parcels of land adjacent to the rail, preserving critical parcels of land for rail use (both freight and passenger rail), and collaborating across the state and with neighboring states are among the many strategies listed in the document. Although the information regarding rail use and ownership was relevant at the time of publication, today it is quite outdated. The *Delaware State Rail Plan* is currently being updated; this document is expected to be finished sometime in 2027.

Dover/Kent County Metropolitan Planning Organization Rail Zoning Study (2018)

https://doverkentmpo.delaware.gov/files/2018/11/Final-Rail-Study-November-14-NOV-18-FINAL-version.pdf



This document was the first time Dover Kent MPO analyzed rail land use, and it led to the more detailed *Rail Corridor Land Use Study* in 2022. It examines the comprehensive plans of municipalities along the rail corridor and studies other existing conditions. Based on the findings, the study lists five key recommendations to assist State, County, and local stakeholders with incorporating rail freight considerations into their planning and land use activities. These recommendations include improved coordination between railroad operators and municipalities, a standardized building setback from the railroad, and the involvement of railroad operators in the Preliminary Land Use Service (PLUS) process.

Rail Corridor Land Use Study (2022)

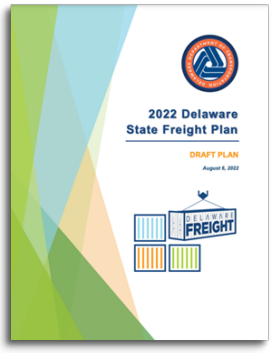
https://doverkentmpo.delaware.gov/files/2023/01/Rail-Corridor-Land-Use-Study-Final-September-2022.pdf



The first phase of the rail corridor land use study was completed in 2022 by Dover Kent MPO as a follow-up to the 2018 study. It served as a template for this current study, using the same "tile" format for the mapping and the same criteria for parcel analysis. The original study focused solely on the existing rail corridors in Kent County, Delaware, giving it a smaller study area. Along with the document itself, the MPO completed an interactive web map that allows users to focus on a specific parcel and study all of its corresponding attributes. The study and interactive map have been used by the MPO and the Kent Economic Partnership to better understand the available parcels along the rail corridors in Kent County, which has informed their decision-making and their recommendations to various development committees.

Delaware State Freight Plan (2022)

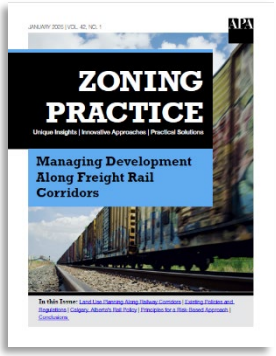
https://deldot.gov/Business/freight/



The latest version of the *Delaware State Freight Plan* was completed in 2022 by the Delaware Department of Transportation (DelDOT) in collaboration with the Dover Kent MPO and other partners. Its purpose is to list the existing freight conditions within the State of Delaware, which includes rail-related freight. It also lists potential areas for improvement and expansion; freight land use preservation is one of the key strategies to help towards the state's "economic vitality" goal, and the document emphasizes the importance of minimizing residential encroachment and managing conflicts between residential and freight communities. Planning considerations to help address these conflicts are included as well. The updated *Delaware State Freight Plan* is expected to be finished sometime in 2026.

Zoning Practice: Managing Development Along Freight Rail Corridors (2025)

https://www.planning.org/publications/document/9303209/



This document, published by the American Planning Association (APA), is a recently completed resource that covers many of the topics referred to in this study. Its main purpose is to provide strategies for reducing risk along railroad tracks and avoiding incompatible uses. The document gives examples of municipal policy initiatives related to rail use throughout the United States and Canada, the most prominent of these being Calgary, Alberta. (Regulations addressing building width, noise reduction, hazardous materials, and other conflicting uses are addressed in Calgary's rail land use policies.) The document also highlights the steps needed to develop a risk-based land use planning approach, which "allows freight rail corridors and development to coexist safely and effectively, enabling local governments to balance safety, quality of life, and growth, while meeting development goals."

Other Resources

This study also relied on various resources from across the country to understand the best strategies for being a "good neighbor" for freight. They were used to gather information for both this current study and the 2022 study. These resources were put together by institutions such as the Federal Highway Administration (FHWA), the American Planning Association (APA), the National Cooperative Freight Research Program (NCFRP), the Delaware Valley Regional Planning Commission (DVRPC), the Center for Transportation Research (CTR) at the University of Texas at Austin. Two sample rail overlay districts, derived from the City of Nevada, Iowa and the City of Regina, Saskatchewan, are also cited, as well as several examples from the CTR publication. While some of the resources are somewhat outdated, and not all of the information is relevant to Delaware transportation planning, the general concepts and strategies for dealing with land use conflicts are still worth including in the document. The footnotes throughout the study cite these additional resources.

Also note that the updates to the *Delaware State Freight Plan* and the *Delaware State Rail Plan* are taking place at the time of this study's completion. The findings of this study, especially the recommendations for rail corridor preservation and municipal zoning strategies, are being incorporated into these two documents. Both are expected to be finished in the months following this study's completion.

DOVER/KENT COUNTY MPO

METROPOLITAN PLANNING ORGANIZATION



DelDOT