## FTA Region 4

## CATEGORICAL EXCLUSION and

## DOCUMENTED CATEGORICAL EXCLUSION WORKSHEET

**Note**: The purpose of this worksheet is to assist sponsoring agencies (grantees) in gathering and organizing materials for environmental analysis required under the National Environmental Policy Act (NEPA), particularly for projects that may qualify as a Categorical Exclusion (CE) or Documented Categorical Exclusion (DCE). The use and submission of this particular worksheet is NOT required. The worksheet is provided merely as a helpful tool for assembling information needed by FTA to determine the likelihood and magnitude of potential project impacts. **NOTE: Fields are expandable, so feel free to use more than a line or two if needed.**

Submission of the worksheet does not satisfy NEPA requirements. FTA must concur in writing in the sponsoring agency's NEPA recommendation. Project activities may not begin until this process is complete. Contact the FTA Region 4 office at (404) 865-5600 if you have any questions or require assistance.

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| I. | Project Description |
| Sponsoring Agency  City of Raleigh, North Carolina  | Date Submitted4/24/2020 | FTA Grant Number(s) (if known)      |
| Project Title Wake BRT: New Bern Avenue Project - Raleigh, North Carolina     |
| Project Description (brief, 1-2 sentences)The Wake BRT: New Bern Avenue Corridor Project (Project) would implement an approximately 5.1-mile BRT corridor along New Bern Avenue and East Edenton Avenue to connect the Raleigh central business district (CBD) with the WakeMed Hospital Raleigh Campus and New Hope Road.      |
| Purpose and Need for Project (brief, 1-2 sentences, include as an attachment if adopted statement is lengthy)The purpose of the Project is to improve transit service from east downtown Raleigh to New Hope Road. This new transit investment would accommodate projected growth, create transit infrastructure that allows the BRT route and local routes to bypass major congestion points, and improve the attractiveness of the service to experience ridership growth. Project needs are summarized as: Address existing and projected future growth and travel demandCreate infrastructure that allows transit service to bypass major congestion pointsFacilitate ridership growth along the corridorImprove transit service and customer experienceSupport local planning efforts to preserve and enhance the quality of life along the corridor     |
| Project Location (include City and Street address)The proposed alignment would start at GoRaleigh Station (214 S Blount Street, Raleigh, NC) and extend east on one-way pairs of New Bern Avenue and East Edenton Street and end at the proposed East Raleigh park-and-ride, north of New Bern Avenue between Wilders Grove Lane and New Hope Road.      |
| Project Contact (include phone number, mailing address and email address) Mila Vega, Planning Supervisor City of Raleigh, 919-996-4123, Mila.Vega@raleighnc.gov     |
| If your project involves construction, include the following: * Project vicinity map
* Project site plan showing access points and project boundaries
* Other useful maps as appropriate (topo, for instance, depending on circumstances, and/or Google Earth aerial, NEPA Assist, etc.)
* A few photographs of the site if useful to illustrate important features
* Details pertaining to the depth of soil excavation
* Note if the soil has been previously disturbed by prior construction or other activity
* List parks or recreation areas within the project vicinity
* Any previous consultations that might be relevant? (HUD, SHPO, or DOTs)
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| **II.**  | NEPA Class of ActionAnswer the following questions to determine the project’s potential class of action. If the answer to any of the questions in Section A is “YES”, contact the FTA Region 4 office to determine whether the project requires preparation of a NEPA environmental assessment (EA) or environmental impact statement (EIS).  |
| **A.** **A.1****A.2****A.3** | Will the project significantly impact the natural, social and/or economic environment?[ ]  YES (contact FTA Regional office)[x]  NO (continue)Is the significance of the project’s social, economic or environmental impacts unknown?[ ]  YES (contact FTA Regional office)[x]  NO (continue)Is the project likely to require detailed evaluation of more than a few potential impacts?[ ]  YES (contact FTA Regional office)[x]  NO (continue)Is the project likely to generate intense public discussion, concern or controversy, even though it may be limited to a relatively small subset of the community?[ ]  YES (contact FTA Regional office)[x]  NO (continue) |
| **B.**[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]  | Does the project appear on the following list of Categorical Exclusions (CEs)?The types of activities listed below describe actions which, when the corresponding conditions are met, are under usual circumstances categorically excluded from further NEPA analysis under [23 CFR 771.118(c).](http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=813a61c1c2f404609732a709d8ef0174&rgn=div8&view=text&node=23:1.0.1.8.43.0.1.10&idno=23) Unusual circumstances may include, but are not limited to, the presence of wetlands, historic buildings and structures, parklands, or floodplains in the project area, or the potential for the project to impact other resources. (Descriptions of each type of activity, and corresponding conditions, are available [here](http://www.fta.dot.gov/documents/FTA_CE_Presentation.pdf); this worksheet simply lists the name of each exclusion.)[ ]  YES (If checked AND there are no special circumstances, check the applicable box and briefly describe the activity in Section III. A; then proceed to the signature block on the back page.)[x]  NO (continue to Section II. C)[23 CFR 771.118(c)(1-16)](http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=813a61c1c2f404609732a709d8ef0174&rgn=div8&view=text&node=23:1.0.1.8.43.0.1.10&idno=23)1. Utility and Similar Appurtenance Action
2. Pedestrian or Bicycle Action
3. Environmental Mitigation or Stewardship Activity
4. Planning and Administrative Activity
5. Activities Promoting Transportation Safety, Security, Accessibility and Communication
6. Acquisition, Transfer of Real Property Interest
7. Acquisition, Rehab, Maintenance of Vehicles or Equipment
8. Maintenance, Rehab, Reconstruction of Facilities
9. Assembly or Construction of Facilities
10. Joint Development of Facilities
11. Emergency Recovery Actions

(Several conditions attach to this type of CE. We recommend you consult with FTA if you think this CE may apply to your action.)1. Projects Entirely within the Existing Operational Right-of-Way.
2. Federally Funded Projects

 (Must be less than $5 million in federal funding, or having a total estimated cost of not more than $30,000,000 and Federal funds comprising less than 15 percent of the total estimated project cost.1. Bridge Removal and Related Activities.
2. Preventative Maintenance to Certain Culverts and Channels
3. Geotechnical and Similar Investigations
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| **C.**[ ] [ ] [ ] [x] [ ] [ ] [ ] [ ] [ ]  | **Does the project appear on the following list of potential documented Categorical Exclusions?** Projects that are categorical exclusions under [23 CFR 771.118(d)](http://www.ecfr.gov/cgi-bin/text-idx?SID=6b42e912ba5913db998f33ea4cae9a6c&node=23:1.0.1.8.43.0.1.10&rgn=div8) require additional documentation demonstrating that the specific conditions or criteria for the CEs are satisfied and that significant effects will not result. [x]  YES (Check correct box below and continue to Part III)[ ]  NO (Contact FTA Regional Office)[23 CFR 771.118(d)(1-8)](http://www.ecfr.gov/cgi-bin/text-idx?SID=6b42e912ba5913db998f33ea4cae9a6c&node=23:1.0.1.8.43.0.1.10&rgn=div8)1. Modernization of a highway by resurfacing, restoring, rehabilitating, or reconstructing shoulders or auxiliary lanes.
2. Bridge replacement or the construction of grade separation to replace existing at-grade railroad crossings.
3. Acquisition of land for hardship or protective purposes. (NOTE: Hardship and protective buying will be permitted only for one or a limited number of parcels, and only where it will not limit the evaluation of alternatives (including alignments) for planned construction projects.
4. Acquisition of right-of-way. (NOTE: No project development on the acquired right-of-way may proceed until the NEPA process for such project development, including the consideration of alternatives, where appropriate, has been completed.)
5. [Reserved]
6. Facility modernization through construction or replacement of existing components.
7. Minor realignment for rail safety purposes
8. Facility modernization/expansion outside existing ROW

“Other” actions which meet the criteria for a CE in the CEQ regulations (40 CFR 1508.4) and will not result in significant environmental effects. Actions must not: induce significant impacts to planned growth or land use; require the relocation of significant numbers of people; have a significant impact on any natural, cultural, recreational, historic or other resource; cause significant air, noise, or water quality impacts; have significant impacts on travel patterns; or otherwise have significant environmental impacts (either individually or cumulatively). |
| **III.** | Information Required for Documented Categorical ExclusionsIf you checked “Yes” to any of the options in Part II. C, complete each relevant subject area for Part III. Sections B-AA and submit to FTA. Depending on the project, some of the subject areas may not be applicable. In such cases, no discussion is needed.  The list below is not all-inclusive. If your proposed project has the potential to cause impacts to resources which are not listed below, please provide supplemental information about those potential impacts.  |
| **A.**  | **Detailed Project Description**Describe the project and explain how it satisfies the purpose and need identified in Part I.The Project alignment would begin at the GoRaleigh Station (bordered by Blount, Martin, Wilmington, and Morgan streets) and extend east along the one-way pairs of New Bern Avenue and East Edenton Street. At Poole Road, East Edenton Street and New Bern Avenue converge to New Bern Avenue. The alignment continues eastbound on New Bern Avenue and passes WakeMed Hospital Raleigh Campus at Sunnyside Road and continues to the eastern terminus at New Hope Road. The proposed East Raleigh park-and-ride would be 100-space park-and-ride lot north of New Hope Road. The Project would include 3.3 miles of new dedicated transitway between the GoRaleigh Station in downtown Raleigh and WakeMed Hospital Raleigh Campus at Sunnybrook Road; and approximately 1.8 miles of service in general traffic lanes between Sunnybrook Road and New Hope Road. The Project would also include transit signal priority (TSP) at signalized intersections and 10 weather-protected BRT stations. All BRT stations would be designed to include off-board fare payment, level vehicle boarding platforms, real-time bus arrival information, and Americans with Disabilities (ADA) Act- compliant facilities. GoRaleigh intends to purchase 7 compressed natural gas (CNG)-fueled, 60-foot articulated BRT vehicles to operate the proposed BRT service. The City operates an existing maintenance facility for GoRaleigh buses (the City’s transit system). The facility is located approximately 3 miles south of the Project corridor eastern terminus. The maintenance facility includes 2 maintenance bays designed for articulated vehicles, CNG fueling, and storage for up to 30 articulated BRT vehicles. There would be no new work at the maintenance facility associated with the Project and headways would be minimal since the facility is less than 10 miles from the Project corridor. Reference Figure 1 in Appendix A- Project Location and Zoning for a Project overview map.The Project would satisfy the purpose and need by providing high frequency transit service in the New Bern corridor to relieve congestion and support the growing population in the area. The proposed BRT stations and proposed East Raleigh park-and-ride would also provide nodes where development could continue to grow in the corridor.  |

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| **B.** | **Location and Zoning**Attach a map identifying the project’s location and surrounding land uses. Note any critical resource areas (historic, cultural or environmental) or sensitive noise or vibration receptors (schools, hospitals, churches, residences, etc). Briefly describe the project area’s zoning and indicate whether the proposed project is consistent with it. Briefly describe the community (geographic, demographic, economic and population characteristics) in the project vicinity.The Project is compatible with local land uses and is consistent with existing zoning within the Project study area. Land within and surrounding the Project corridor is predominately zoned for residential and mixed-use land uses. The zoning classification “Downtown Mixed Use” is assigned to all parcels within downtown Raleigh west of Person Street. Along New Bern Avenue and Edenton Street, between Person Street and Poole Road, parcels accessed from New Bern Avenue and Edenton Street are typically zoned for mixed use with surrounding parcels having residential zoning. Between Poole Road and the WakeMed Hospital Raleigh Campus, parcels accessed from and surrounding the corridor are primarily residential zoning, except for the Longview shopping centers and some office mixed use. From WakeMed Hospital Raleigh Campus to the eastern terminus of the Project, zoning within and surrounding the Project study area is overwhelmingly industrial and commercial mixed use. Figure 2 in Appendix A- Project Location and Zoning includes the land uses surrounding the Project. Most of the land within and surrounding the Project study area is developed and there are limited opportunities for new development. Through the Growth Framework Map, the City of Raleigh 2030 Comprehensive Plan (2009) identifies New Bern Avenue as a multimodal corridor. Transit Oriented Development (TOD) areas are not specified along the corridor, though mixed use community centers are identified surrounding the existing Longview shopping centers and the proposed East Raleigh park-and-ride. The Plan lists a policy to encourage TOD around new transit stations, including around BRT stations. The Plan further elaborates that “intense” residential and mixed uses should be developed on sites within one-half mile of fixed guideway transit stations. However, the Plan also encourages the conservation of established single-family neighborhoods, which make up most of the project area west of I-440. The Plan also mentions the need to provide incentives for affordable and middle-class housing within TOD designations or development. While the City has established a specific Transit Overlay District, there are not provisions to encourage the building of affordable units and the overlay has yet to be assigned within the City’s jurisdiction.Existing and proposed zoning will limit what can either be developed or redeveloped. Existing residential zoning forms restrictions on development by limiting density through caps on the number of dwelling units and minimum lot sizes. Changes in land use and density type would require zoning amendments that are subject to neighborhood meetings, Planning Commission review, and City Council approval. Within the City’s jurisdiction, mixed use zoning classifications are also detailed with height limits and frontage-style specifications. These specifications limit the capacity of potential redevelopment and the capacity for new development to be denser than existing development. Any changes in classification would require a zoning amendment.The Project is in an urban environment, with residential properties and businesses on either side of the alignment. The Project corridor was analyzed using North Carolina Department of Transportation’s (NCDOT) Demographic Snapshot Tool, which takes 2013-2017 American Community Survey 5-year Estimates and the 2010 Census data to determine a community overview profile of the Project. Total population in the corridor, according to the 2010 census data, is 25, 270 residents. The population increased by approximately 19% between the 2000 and 2010 census. The unemployment rate in the Project corridor is approximately 7%, which is higher than Wake County’s average (4.9%). The Project corridor was also evaluated using Longitudinal Employer-Household Dynamics (LEHD) data (OntheMap) to analyze where residents who live in the corridor are traveling to get to work. Approximately 50% of employed residents are traveling within the City of Raleigh to get to their jobs, so reliable public transit within the City of Raleigh could be an important resource for many residents in the Project corridor. Additionally, WakeMed Hospital Raleigh Campus, located within the Project corridor at New Bern Avenue and Sunnybrook Road, is a large employer for the region. The median age of residents is 34.9 years old and the median household income is $44,000. Approximately 10% of residents within a half-mile of the Project alignment speak a primary language other than English at home, with Spanish being the largest group (8.4%). There are approximately 14.5% of households within a half-mile of the Project that do not have a vehicle available. The number of zero car households is substantially higher than Wake County’s average of 4.1%. Data on low-income and minority populations in the Project corridor can be found in Section III(G)- Environmental Justice. There are a wide variety of community resources within one-quarter mile of the Project alignment (Figures 3 and 4 in Appendix A- Project Location and Zoning). Data for public and charter schools, colleges/universities and daycare locations was obtained through Wake County’s Open Data portal. The corridor includes four public schools, one charter school, and six daycare centers. WakeMed Hospital Raleigh Campus, located at the intersection of New Bern Avenue and Sunnybrook Road, is the only major medical facility within the corridor. One library, the Richard B Harrison Library, is at the intersection of Poole Road and New Bern Avenue. The North Carolina Division of Motor Vehicles (DMV) headquarters is located at the intersection of New Bern Avenue and South Tarboro Street. Several parks and greenways are within a quarter-mile radius of the Project, including the Tarboro Road Park and Community Center and Crabtree Creek Trail. Additional information on parks and greenways can be found in Section III(O)- Recreational.Several previously National Register of Historic Places (NRHP)-listed historic districts and individual nominations are within one-half mile of the Project. These resources were identified through the online GIS HPOWEB database maintained by North Carolina State Historic Preservation Office (HPO). Section 106 consultation for the Project is ongoing and will be concluded before any ground breaking or staging occur. |
| **C.** | **Traffic**Describe potential traffic and parking impacts, including whether the existing roadways have adequate capacity to handle increased bus or other vehicular traffic. Include a map or diagram if the project will modify existing roadway configurations. Describe connectivity to other transportation facilities and modes, and coordination with relevant agencies.BRT vehicles would operate in right-side-curb-running Business Access & Transit (BAT) lanes from downtown Raleigh to Poole Road and would limit the transitway to transit vehicles and vehicles turning right only. In addition to other local GoRaleigh or regional GoTriangle routes could be able to utilize the BAT lanes. From Poole Road to Sunnybrook Road, BRT vehicles would operate in a dedicated median transitway and in mixed traffic from Sunnybrook Road to New Hope Road. TSP would be installed at all signalized intersections throughout the 5.1-mile corridor (shown on Figure 1 in Appendix B- Traffic Analysis). Left turn access would be restricted by a concrete median between Poole Road and Donald Ross Drive/Peartree Lane. Median turn lanes would remain at Raleigh Boulevard, King Charles Road, and Clarendon Crescent. Poole Road and St Augustine intersections would be realigned to form a four-legged signalized intersection with westbound U-turns accommodated at the intersection for vehicles that no longer have left turn access between Raleigh Boulevard and Poole Road. The proposed transitway would reduce congestion in left turn lanes at unsignalized intersections, most notably at Dickens Drive, King William Road/Longview Lake Drive and Albemarle Avenue, found in the middle section of the Project between Poole Road and the Wake Med campus. Signalized intersections would experience increases in delay due to the addition of U-turning traffic. The existing roadway can adequately handle increased transit use. Minor roadway work (re-paving, re-striping, minor curb work, and sidewalk and multi-use path construction) would be needed to re-configure the roadways for median-running BRT vehicles. The proposed Project would increase transit capacity along the corridor due to the implementation of dedicated transit travel lanes and more frequent bus service. The BRT system would have minimal effect on the operations of the road network. The proposed dedicated transitway would alter the traffic movements in the corridor; however, the corridor’s roadway capacity is more than sufficient for the existing demand. Additionally, the frequency of the BRT (6 buses per hour in each direction during peak periods) are not anticipated to increase the traffic volume. BRT vehicles would enter and leave the existing maintenance facility when not in use. Currently, GoRaleigh buses, the City’s transit agency, use the facility so traffic is not anticipated to change with the addition of 7 BRT buses.  |
|  | *Traffic Analysis* A traffic analysis was completed to determine the impact the Project would have on vehicular traffic (Appendix B- Traffic Analysis). Traffic counts were collected along the corridor in April 2019 during AM and PM peak hours to obtain Existing/No Build volumes. The AM and PM peak hours were established to be between 7AM-8AM and 4:30PM-5:30PM, respectively. Existing transit route data from the City of Raleigh (GoRaleigh) and GoTriangle was also collected for bus routes along the corridor. AM and PM peak period volumes for the Project were developed by re-routing existing turning movement counts to account for new routes that vehicles would have to travel when left turn or through access would be removed with implementation of the proposed Project. Table 2 in Appendix B- Traffic Analysis shows the intersections for which left turn access would be affected with the Project. Intersections not listed in the table would maintain existing access.Level of service (LOS) is the generally accepted measure used to describe the quality of traffic service. See Table 3 in Appendix B- Traffic Analysis for LOS Criteria. Peak-hour LOS thresholds at signalized intersections were designated based on established City of Raleigh standards. LOS A, B, C, D, or E was considered acceptable, as identified in Policy T 2.10 of the *2030 Comprehensive Plan for the City of Raleigh*. Additionally, intersections that currently, and would continue to operate at LOS F were also considered acceptable by the City’s standards.Six intersections in the Project corridor currently operate at LOS F (Table 5 Appendix B- Traffic Analysis). Two of the six intersections, New Bern Avenue at Dickens Drive and New Bern Avenue at King William Road/Longview Lake Drive, would experience an improvement in LOS (B or C) during AM and PM peak periods with the proposed Project. The remaining four intersections would continue to operate at LOS F; however, none are expected to experience an increased delay due to the Project. No intersections are anticipated to change from an acceptable LOS (A-E) to a LOS F due to the Project. *Parking* The Project corridor was assessed for impacts to existing on-street parking, loading zones, and parking garages with the implementation of BRT. On-street parking exists from downtown Raleigh to State Street. Parking spaces were counted on each street where BRT lanes are proposed on New Bern Avenue and East Edenton Street. There are approximately 315 on-street parking spaces in the Project corridor. In downtown Raleigh, on-street parking is generally marked and metered, whereas parking along New Bern Avenue and East Edenton Street east of Blount Street is unmarked. To accommodate the proposed dedicated transitway within the existing right-of-way, the BRT design would require the repurposing of approximately 98 of the 315 on-street parking spaces, leaving a total of 217 parking spaces. Streets with the largest number of parking spaces removed include: * Blount Street from New Bern Avenue to Martin Street
* Morgan Street from Blount Street to Wilmington Street
* Wilmington Street from Martin Street to Hargett Street
* New Bern Avenue from Swain Street to State Street

Parking along cross streets between New Bern Avenue and Edenton Street was also assessed; however, those parking spaces are un-marked and un-metered and assumptions were made to estimate the number of spaces. Although the Project would remove on-street parking primarily in downtown Raleigh, the proposed East Raleigh park-and-ride would add 100-spaces on the east end of the corridor. The park-and-ride would reduce the need for parking in downtown by allowing transit riders to ride the BRT and walk to their destinations. Thirteen loading zones are in the Project corridor. Nine of the loading zones would be impacted by the BAT lanes and the proposed BRT station platforms in downtown Raleigh. Loading and unloading operations may still be accommodated close to existing locations. The City of Raleigh would coordinate with businesses in the corridor to determine strategic locations, signage, and loading zone policy. The Project is not anticipated to affect access to the two existing parking garages on the corridor.On-street parking would be reduced with the proposed Project, and coordination would be needed for business loading zones. However, the addition of frequent, efficient, and reliable transit service can provide transit users access to destinations along the corridor without using a personal vehicle or paying downtown parking prices. During the 2019 open-house public meetings, the City of Raleigh received public comments that were in favor of the Project, as it would reduce the need to find parking on busy downtown streets. Some comments also expressed opposition to the possible removal of on-street parking in their neighborhood and concern that cars would continue to park in the dedicated bus lanes. The City of Raleigh would work to enforce the dedicated bus lanes and install appropriate signage to reduce the number of cars using the lanes.*Project Coordination*GoRaleigh Route 15 and the GoTriangle Zebulon-Wendell-Raleigh Express (ZWX) currently operate in the Project corridor; local bus stops would initially continue to operate on the curb-side of the road, with the potential to have all transit vehicles eventually use the dedicated transitway once BRT is implemented. Coordination with GoRaleigh (City of Raleigh operated) and GoTriangle, the regional transit agency, would be required to connect the local BRT route with other regional bus routes in the corridor. Temporary construction impacts would alter existing traffic routes. Coordination with NCDOT would be required to temporarily re-route traffic during construction. Local businesses and residents would be contacted to inform them of temporary closures or detours due to the proposed construction. During the open-house public meetings for the Project, the City of Raleigh received comments that expressed concerns about the safety of implementing dedicated transitways. Concerns were expressed regarding drivers who may not be accustomed to the new lanes and who may drive in them or try to turn across them without checking for an oncoming BRT vehicle. There were also comments that the buses would be slowed down by other traffic during peak hours or by cars turning right or left across the intersection. To address concerns about bus travel times during peak hours, the Project would utilize TSP to prioritize buses during congestion and maintain bus travel times. The City of Raleigh would work with NCDOT to install appropriate signage to reduce the number of motor vehicles accessing the transitway and alert drivers of the new roadway design. Additional examples of how public comments were used to inform the Project design are found in in Section III(W) and Table 1: Common Comments on Project Design in Appendix I- Public Involvement. |
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| **D.** | **Aesthetics**Will the project have an adverse effect on a scenic vista?[x]  No [ ]  Yes, describe     Will the project substantially degrade the existing visual character or quality of the site and its surroundings?[x]  No [ ]  Yes, describeThe character of the roadway itself is consistently wide with four to five lanes, including on-street parking in certain areas, sidewalks, street trees, bus shelters, and traffic equipment. Much of the corridor contains recently constructed or renovated buildings that front directly on the right-of-way and include retail uses on the street level. The public right-of-way includes sidewalks, street signs, street lights, traffic signals, landscaping, and overhead utility lines. These features are readily visible from the roadway, sidewalks, and abutting properties. In general, the existing visual quality of the entire corridor is low due to the lack of intactness and continuity. While the Project corridor does not contain any scenic vistas, there are several previously NRHP-listed historic districts and individual nominations within one-half mile of the Project. These resources were identified through the online GIS HPOWEB database maintained by the North Carolina State Historic Preservation Office HPO. Section 106 consultation for the Project is ongoing and the FTA will determine effects to eligible historic resources. The Section 106 consultation will be concluded before any groundbreaking or staging occurs. Conceptual visualizations of features of the Project are in Appendix C- BRT Infrastructure Conceptual Visualizations. Will the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?[x]  No [ ]  Yes, describe      |
| **E.** | **Air Quality** Does the project have the potential to impact air quality?[x]  No[ ]  Yes, describe     Is the project located in an EPA-designated non-attainment or maintenance area?[x]  No[ ]  Yes, indicate the criteria pollutant and contact FTA to determine if a hot spot analysis is necessary.  [ ]  Carbon Monoxide (CO) [ ]  Ozone (O3) [ ]  Particulate Matter (PM10 or PM2.5)If the non-attainment area is also in a metropolitan area, was the project included in the MPO’s Transportation Improvement Program (TIP) air quality conformity analysis?[x]  No[ ]  Yes Date of USDOT conformity finding:       |
| **F.** | **Coastal Zone** Is the proposed project located in a designated coastal zone management area?[x]  No [ ]  Yes, describe coordination with the State regarding consistency with the coastal zone management plan and attach the State finding, if available.      |
| **G.** | Environmental Justice Determine the presence of minority and low-income populations (business owners, land owners, and residents) within about a a quarter-mile of the project area. Indicate whether the project will have disproportionately high and adverse impacts on minority or low-income populations. Describe any potential adverse effects. Describe outreach efforts targeted specifically at minority or low-income populations. Guidance is [here](http://www.fta.dot.gov/legislation_law/12349_14740.html).An Environmental Justice (EJ) analysis was performed for the Project in accordance with Title VI of the Civil Rights Act of 1964,Executive Order (EO) 12898, EO 13166, USDOT Order 5610.2, and FTA Circular 4703.1 and 4702.1B. The study area for the Project is defined as the areas within a half-mile radius of the Project’s proposed alignment and station areas. EJ populations were identified using U.S. Census Bureau data at the block group level. The source of the data is NCDOT Demographic Snapshot Tool, which contains datasets developed using 2010 Census data and American Community Survey 5-year Estimates (2013-2017). Block groups were compared to Wake County’s data to determine whether any groups meet the EJ Threshold. An EJ area was considered any block group which the minority or low-income Minority and low-income populations that meet the EJ population criteria are found on Figure 1 in Appendix D- Environmental Justice Analysis. The East Raleigh park-and-ride is also located in an EJ area.*Environmental Justice Analysis* Minority PopulationsFifteen block groups were evaluated within the Project’s half-mile buffer comprising the study area. The average minority population in Wake County is 39.4%. The Project corridor has an average minority population of 66.8%. All but one block group within the Project study area met the threshold for an EJ area, with the block group minority populations either exceeding Wake County’s minority population percentage or accounting for 50% or more of the block group’s overall population (Table 1 Appendix D- Environmental Justice Analysis). Low-income PopulationsThe average percent of the population below the poverty level in Wake County is 10.1%. Of the 15 block groups within the Project’s half-mile buffer, 10 block groups meet the threshold for an EJ area, since they exceed Wake County’s low-income population or meet or exceed 50% of the block group’s overall population. The low-income EJ populations are primarily found on the western end of the Project, near downtown Raleigh, and on the south side of New Bern Avenue between Poole Road and WakeMed Hospital Raleigh Campus (Table 2 Appendix D- Environmental Justice Analysis). |
|  | Project Impacts on EJ PopulationsThe Project is not anticipated to have any disproportionately high and adverse environmental or health impacts on EJ populations identified in the Project area. *Transportation*Access to more frequent and reliable transit service would be improved with the implementation of BRT in the corridor. Currently, the GoRaleigh Route 15 operates in the New Bern corridor at 15-minute and 30-minute frequencies during weekdays and 30-minute and 60-minute frequency on weekends. The implementation of BRT in the New Bern corridor would allow buses to operate in all-day, 10-minute frequencies and 20-minute frequency on weekends. Access to BRT stations and other local destinations would also be improved with the sidewalks and multi-use path improvements on the north and south sides of New Bern Avenue to Sunnybrook Road, respectively. The Project should result in an overall beneficial impact for EJ populations with increased transit access to employment centers, educational institutions, and public parklands. Additionally, 97 on-street parking spaces would be removed from EJ areas to accommodate the proposed dedicated transitway. However, the East Raleigh park-and-ride, located in an EJ population area, would provide 100 spaces for transit riders.*Acquisitions*Five parcels within EJ population areas would require partial acquisitions, totaling approximately 1.35 acres, none of which would adversely impact EJ populations. The proposed East Raleigh park-and-ride would require two full acquisitions and one partial acquisition within a commercial area. The partial acquisition, at the intersection of Lake Woodard Drive and New Hope Road, would be needed for stormwater drainage. The proposed 100-space East Raleigh park-and-ride would be constructed on the two full acquisition parcels, between Wilders Grove Lane and New Hope Road. One business would be relocated due to the proposed East Raleigh park-and-ride. The full acquisition parcels associated with the park-and-ride would total approximately 1.45 acres and the partial acquisition associated with the park-and-ride would total approximately 1.26 acres. Because the corridor is already served by bus service, no new noise impacts are anticipated with the Project. During construction and installation of BRT infrastructure, access to neighborhoods or businesses would be temporarily impacted. The new BRT stations would be a new visual impact in the community, but stations are anticipated to be similar in character to the surrounding area (existing bus shelters, signage, etc.). While there would be some adverse impacts from the Project, including displacements, impacts from construction, and other minor environmental impacts, these would be borne equally by all populations in and around the Project area. In addition, all populations within the Project area would receive the benefits resulting from the project, which include improved transit service, thus allowing easier access to public facilities and services.Outreach to EJ PopulationsPublic outreach for the Project has been ongoing and has been intended to provide affected members of the public with the opportunity to comment on the proposed design. Two public meetings were held at Martin Street Baptist Church, located south of New Bern Avenue in an area of EJ populations. The first meeting was on June 25, 2019 from 4PM – 7PM and the second meeting was October 29, 2019 from 4PM – 7PM. Both meetings were open houses and included a presentation by the City of Raleigh. The meetings were advertised using several methods, including on bus placards, message boards at GoRaleigh Station, postcard distribution, and email blasts. A total of 209 people signed in to the two meetings. Translators were present for attendees who had requested Spanish interpretation and meeting materials in Spanish were available. Common concerns expressed during the public meetings included topics such as affordable housing, neighborhood displacement, redevelopment, and safety of bicycles and pedestrians along the corridor. During the open-house public meetings for the Project, the City of Raleigh received comments that expressed concerns about the safety of implementing dedicated transitways. Concerns were regarding drivers who may not be accustomed to the new lanes and who may drive in them or try to turn across them without checking for an oncoming BRT vehicle. Additionally, during the meetings, City of Raleigh received public comments that were in favor of the Project, as it would reduce the need to find parking in on busy downtown streets. Some comments were also opposed to the possible removal of on-street parking in their neighborhood or expressed concern that cars would continue to park in the dedicated bus lanes. The City of Raleigh would work to enforce the dedicated bus lanes and install appropriate signage to reduce the number of cars using the lanes. The City of Raleigh would communicate any parking changes with local neighborhoods in advance of construction.There were also comments that the buses would be slowed down by motor traffic during peak hours or by cars turning right or left across the intersection. To address concerns about bus travel times during peak hours, the Project would utilize traffic signal prioritization (TSP) to prioritize buses during congestion and maintain bus travel times. The City of Raleigh would work with NCDOT to install appropriate signage to reduce the number of motor vehicles accessing the transitway and alert drivers of the new roadway design. Additional examples of how public comments were used to inform the Project design are found in Table 1 in Appendix I- Public Involvement. Refer to Section III(W) for additional information on public involvement.Comment forms were available at the public meetings and an online form was created to provide those who could not attend the opportunity to provide input. Based on public comments received during the first public meeting, two additional BRT stations were added to the proposed Project at Trawick Road and Corporation Parkway. These proposed stations were added in response to comments that the proposed alignment would not capture existing GoRaleigh riders and new transit riders along the eastern portion of the corridor. In addition to the two formal public meetings, staff has attended several pop-up events to provide information about the Project. Attended pop-up events included Citizen Advisory Council meetings, an event at Martin Street Baptist Church, the Center for Hispanic Families, and the Tamale Festival at Dorothea Dix Park. Additional small group and community meetings to be held within the study area would continue throughout the course of the Project. A full list of public engagement activities can be found in Table 2 in Appendix I- Public Involvement. |
| **H.** | **Floodplains** Is the proposed project located within the Federal Emergency Management Agency (FEMA) 100-year floodplain?[ ]  No [x]  Yes, describe potential impacts, indicate if the project will impact the base flood elevation, and include or link to the FEMA Flood Insurance Rate Map (FIRM) with the project location identified.Approximately 2.19 acres of riparian floodplain (FEMA 100-year floodplain - Zone AE) were identified within the Project study area, near the existing bridge crossing of New Bern Avenue over Crabtree Creek. (See Appendix E- Natural Resources Technical Memorandum – maps 2-5 and 3-5).In proximity to the floodplain, the Project would operate in mixed traffic. The design would remain within the existing roadway footprint along New Bern Avenue and the proposed Project would use the existing bridge crossing of New Bern Avenue over Crabtree Creek. Since the Project would stay within the existing roadway footprint with no changes to the New Bern Avenue bridge crossing of Crabtree Creek, no work is anticipated to affect the base flood elevation.For more detail and additional Project maps, see the Appendix E- Natural Resources Technical Memorandum.  |
| **I.** | **Hazardous Materials** Is there any known or potential contamination at the project site? This may include, but is not limited to, lead/asbestos in existing facilities or building materials; above or below ground storage tanks; or a history of industrial uses of the site. [ ]  No, describe steps taken to determine whether hazardous materials are present on the site.[x]  Yes, note mitigation and clean-up measures that will be taken to remove hazardous materials from the project site. If the project includes property acquisition, identify if a Phase I Environmental Site Assessment for the land to be acquired has been completed and the results.A limited Phase I Environmental Site Assessment (ESA) was completed to identify known hazardous, contaminated, and regulated materials sites within 1 mile of the proposed Project alignment, BRT stations, and East Raleigh park-and-ride. The limited Phase I ESA consisted of a desktop review of federal, state, and local regulatory databases to identify sites that have historically handled, stored, released, or transported hazardous, contaminated, and regulated materials. Field visits were conducted in November 2019 to supplement the database information. The desktop review identified 75 individual sites of concern within the Project study area (Table 1 in Appendix F- Hazardous Materials Analysis). As shown on Table 1, several individual sites have multiple incident types associated with them and over half of the sites are along New Bern Avenue. The field visits identified no additional sites and the sites observed did not show any visual signs of high levels of contamination; there were no signs of release or other evidence of past releases. No undocumented monitoring wells were observed. The Project is in an urban setting and most of the construction disturbance would occur within previously disturbed areas, such as existing roadways, sidewalks and curb/gutter. Most of the Project’s construction disturbance would be limited to excavations of 5 feet or less below the ground. Partial and full acquisitions have been identified for the preliminary Project design; the two full acquisitions are associated with the proposed East Raleigh park-and-ride. Preliminary Project design plans do not indicate significant impacts on identified contaminated sites, but additional site assessments would be conducted before any right-of way acquisitions occur. If a parcel is contaminated, remediation would occur prior to any Project construction. During construction, the contractor would be expected to dispose of all construction waste at approved disposal facilities and train any personnel on the procedures for handling, storing, and managing hazardous materials or contaminated soils or groundwater on-site.  |
| **J.** | Navigable Waterways Does the proposed project cross or have the potential to impact a navigable waterway?[x]  No [ ]  Yes, describe potential impacts and any coordination with the US Coast Guard.      |
| **K.** | **Noise and vibration**Does the project have the potential to increase noise or vibration?[x]  NO[ ]  YES, describe impact and provide map identifying sensitive receptors such as schools, hospitals, parks and residences. If the project will result in a change in noise and vibration sources, you must use FTA’s “Transit Noise and Vibration Impact Assessment” methodology to determine impact.       |
| **L.** | **Prime and Unique Farmlands** Does the proposal involve the use of any prime or unique farmlands?[x]  No [ ]  Yes, describe potential impacts and any coordination with the Soil Conservation Service of the U.S. Department of Agriculture.The project is within a designated urbanized area. |
| **M.**  | **Historic & Cultural Resources** Impacts to cultural, historic, or recreational properties may trigger Section 106 or tribal consultations or a Section 4(f) evaluation, requiring consideration of avoidance alternatives.Does the project involve any ground disturbing activities?[ ]  No [x]  Yes, provide the approximate maximum ground disturbance depth. Also provide information on previous disturbances or where ground disturbance will occur. The Project would result in ground disturbance around the construction of new BRT station areas along the alignment. Stations would be approximately 60 feet long by 10 feet wide. Additionally, there would be minor roadway construction (re-paving, re-striping, curb installation, sidewalk and multi-use path construction) from Poole Road to the East Raleigh park-and-ride. Ground disturbance is not anticipated to occur below 5-foot depths. Additionally, most of the ground disturbance would occur within previously disturbed areas or within urban environments, such as public road right-of-way. Are there any historic resources in the vicinity of the project? [ ]  No[x]  Yes, Attach photos of structures more than 45 years old that are within or adjacent to the project site and describe any direct or indirect impacts the project may cause. There are several previously NRHP-listed historic districts and individual nominations within one-half mile of the Project. These resources were identified through the online GIS HPOWEB database maintained by the North Carolina State Historic Preservation Office HPO. The Section 106 consultation for the Project is ongoing and the FTA would determine effects to eligible historic or cultural resources. The Section 106 consultation will be concluded before any groundbreaking or staging occurs. Section 106 correspondence can be found in Appendix G- Historic and Cultural Resource Analysis.  |
| **N.** | **Biological**Are there any species located within the project vicinity that are listed as threatened or endangered under the Endangered Species Act? Determine this by obtaining lists of threatened and endangered species and critical habitat from the US Fish and Wildlife Service and the National Marine Fisheries Service. As of June 27, 2018, the U.S. Fish and Wildlife Service (USFWS) listed six federally protected species, under the Endangered Species Act (ESA), for Wake County. The National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) listed one federally protected species, Atlantic sturgeon, for Wake County. Three additional species, two Proposed Threatened and one Proposed Endangered, were also listed for the county (Table 2 in Appendix E- Natural Resources Technical Memorandum).Describe any critical habitat, essential fish habitat or other ecologically sensitive areas within or near the project area. The descriptions below correspond to the species lists with habitat present in Appendix E- Natural Resources Technical Memorandum and listed above. Carolina madtom (*Noturus furiosus*) - Listed by the USFWS as a “range by basin” species and its range extends into Wake County. The Project is within the species’ range and habitat is present in Crabtree Creek within the study area. However, there would be no impact to Crabtree Creek since the Project would be on an existing bridge on New Bern Avenue over the creek. The existing bridge would not be affected by the Project, as BRT vehicles would operate within the existing travel lanes. No construction would occur outside of the existing bridge footprint on either bridge approach to Crabtree Creek. As such, surveys for the Carolina madtom would not be needed. A review of the October 2019 North Carolina Natural Heritage Program (NCNHP) dataset indicates one known occurrence of Carolina madtom within 1.0 mile of the Project study area (Element Occurrence [EO] No. 31); however, it is a county-wide record that is classified as historical.Neuse River waterdog (*Necturus lewisi*) - Listed by the USFWS as a “range by basin” species and its range extends into Wake County. The Project is within the species’ range and habitat is present in Crabtree Creek within the study area. The potential for impact would be the same as for the Carolina madtom. A review of the October 2019 North Carolina Natural Heritage Program (NCNHP) dataset indicates no known occurrences of Neuse River waterdog within the study area or within 1.0 mile of the study area.Atlantic pigtoe (*Fusconaia masoni*) - Listed by the USFWS as a “range by basin” species and its range extends into Wake County. The Project is within the species’ range and habitat is present in Crabtree Creek within the study area. The potential for impact would be the same as for the Carolina madtom. A review of the October 2019 NCNHP dataset indicates no known occurrences of Atlantic pigtoe within the study area or within 1.0 mile of the study area.Dwarf wedgemussel (*Alasmidonta heterodon*) - Listed by the USFWS as a “range by basin” species and its range extends into Wake County. The Project would be located within the species’ range and habitat was present in Crabtree Creek within the study area. The potential for impact would be the same as for the Carolina madtom. A review of the October 2019 NCNHP dataset indicates no known occurrences of Dwarf wedgemussel within the study area or within 1.0 mile of the study area.Michaux’s sumac (*Rhus michauxii)* - Suitable habitat includes open areas caused by disturbances, usually along roadsides, in highway rights-of-way, or around margins of regularly maintained clearings. Suitable habitat for this species is present within the study area along roadsides. Therefore, surveys were conducted by Three Oaks’ staff on October 18 and November 4, 2019 along the main corridor of the Project. Both surveys were completed prior to the first frost of the fall/winter 2019/2020 season. No individuals were found. An additional assessment was completed on December 19, 2019 in the northeastern end of the Project where the study area expands north towards Corporation Parkway for the proposed East Raleigh park-and-ride, station, bus transfer, bus stop improvements and operator restrooms. No habitat was present within this portion of the study area since it was either regularly maintained, heavily disturbed, or wooded and too thick for habitat. Additionally, a review of the October 2019 NCNHP dataset indicates no known occurrences of Michaux’s sumac within the study area or within 1.0 mile of the study area. |
| **O.** | **Recreational**Is the project located in or adjacent to a park or recreation area?[ ]  No[x]  Yes, provide information on potential impacts to the park or recreation area. Please also indicate if the park involved Land and Water Conservation Act funds (Section 6(f))Eight (8) public parklands were identified within the Project study area, including seven (7) existing public parklands and one (1) planned public parkland (Figure 2-1 in Appendix H- Public Parklands, Section 6(f) Land and Water Conservation Fund (LWCF) Lands, and Section 4(f) Evaluation Technical Report) :* Exchange Plaza
* Market Plaza
* Martin Street Connector
* Moore Square
* New Bern Place
* Swain Street Connector (*planned*)
* Tarboro Road Park/Saint Monica Teen Center
* Crabtree Creek Trail

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|  | These parklands were identified by the City of Raleigh’s Parks, Recreation, and Cultural Resources Department, the official with jurisdiction (OWJ) for all the identified parks, as publicly-owned, serving a recreational purpose, open to the public, significant to the OWJ, and would therefore qualify for protections under Section 4(f). The Project would remain within the existing transportation rights-of-way in proximity to the existing or planned public parklands and would not result in any acquisition of public park property. Therefore, the Project:* Would not affect the existing or planned public parklands within the Project study area
* Would not adversely affect the features, attributes, or activities that qualify the public parkland properties for protection under Section 4(f), as defined by 23 C.F.R. § 774
* Would not result in a Section 4(f) use of parkland resources within the Project study area

No lands funded with Section 6(f) Land and Water Conservation Funds were identified within the study area. Therefore, the proposed Project would not affect any Section 6(f) resource. For additional detail, see Appendix H- Public Parklands, Section 6(f) Land and Water Conservation Fund (LWCF) Lands, and Section 4(f) Evaluation Technical Report. |
| **P.** | **Seismic and Soils**Are there any unusual seismic or soil conditions in the project vicinity? If so, indicate on project map and describe the seismic standards to which the project will be designed. [x]  No[ ]  Yes, describeN/A |
| **Q.** | Water Quality Does the project have the potential to impact water quality, including during construction.[ ]  No [x]  Yes, describe potential impacts and best management practices which will be in place.Potential impacts were calculated within the Project study area. Where the Project slope stakes go outside of the existing roadway footprint, disturbance is anticipated. This disturbance would have the potential to impact water quality. To account for these potential effects, impacts were calculated using the Project slopes stakes file (as of December 13, 2019) with a 25-foot buffer added.At the current stage of preliminary design, it was assumed that impacts resulting from the new slope stakes would be permanent impacts. The current stage of design does not include detail for construction grading, erosion and sediment control, or final slope designs to assess the type of impacts (i.e., to discern whether the impacts would be temporary in nature and related to construction sedimentation or whether there would be permanent impacts and related to the slope design itself). For this reason, areas where new slope stakes were proposed, impacts were assumed to be permanent impacts and calculated from the existing slope stakes out to the edge of the 25-foot buffer. Final impact types and amounts would be determined once final design is completed. As of January 2020, North Carolina Division of Water Resources (NCDWR) and USFWS are the only resource agencies that have responded with comments on the Project (see Appendix C - Natural Resources Technical Memorandum). Both agencies expressed concerns with the proposed Project’s potential impact to aquatic habitats.In a letter dated November 13, 2019, NCDWR stated: “Crabtree Creek, Walnut Creek, Marsh Creek, and their tributaries are class 303(d) Impaired waters of the State. The NCDWR is very concerned with sediment and erosion impacts that could result from this project. The NCDWR recommends that the most protective sediment and erosion control Best Management Practices (BMPs) be implemented in accordance with Design Standards in Sensitive Watersheds (15A North Carolina Administrative Code [NCAC] 04B .0124) or comparable BMPs to reduce the risk of further impairment to these waters. Post-construction stormwater BMPs should, to the maximum extent practicable (MEP), be selected and designed to reduce target Pollutants of Concern (POCs) in the 303(d) list for the receiving waters.”In a letter dated December 5, 2019, USFWS stated: “…the Service is concerned about the potential impacts the proposed action might have on aquatic species. Aquatic resources are highly susceptible to sedimentation. Therefore, we recommend that all practicable measures be taken to avoid adverse impacts to aquatic species, including implementing directional boring methods and stringent sediment and erosion control measures. An erosion and sedimentation control plan should be submitted to and approved by the North Carolina Division of Land Resources, Land Quality Section (NCDLR – LQS) prior to construction. Erosion and sedimentation controls should be installed and maintained between the construction site and any nearby down-gradient surface waters. In addition, we recommend maintaining natural, vegetated buffers on all streams and creeks adjacent to the project site.”To address the concerns of these resource agencies, BMPs (e.g., silt fencing during construction to minimize the potential for effects to aquatic habitat and species, reduce the amount of clearing, and maintain natural vegetated buffers on streams and creeks) would be used. The final design would comply with any required permitting requirements and any applicable state and/or local requirements (e.g., Neuse Buffer Rule requirements).Will there be an increase in new impervious surface or restored pervious surface?[ ]  No [x]  Yes, describe potential impacts and proposed treatment for stormwater runoff. While the proposed Project design would be largely constructed within existing roadways, the Project would require relocating and reconstructing curb lines to construct the proposed, dedicated bus lanes, bus rapid transit station platforms, and dedicated infrastructure improvements between GoRaleigh Station in downtown and the WakeMed Hospital Raleigh Campus at Sunnybrook Road. In addition, the Project would add a multi-use path along the eastbound side of Morgan Street and New Bern Avenue. While the Project would increase impervious surface, it would not be anticipated to substantially increase stormwater runoff. The Project is proposing the use of vegetated conveyance and infiltrative type stormwater control measures along the BRT lanes between Poole Road and Sunnybrook Road where the majority of new impervious area would be located. The Project would comply with local stormwater requirements. Is the project located in the vicinity of an EPA-designated sole source aquifer (SSA)?[x]  No [ ]  Yes, provide the name of the aquifer which the project is located in and describe any potential impacts to the aquifer. Also include the approximate amount of new impervious surface created by the project. (May require completion of SSA worksheet.) |
| **R.**  | **Wetlands** Does the proposal temporarily or permanently impact wetlands or require alterations to streams or waterways?[x]  No [ ]  Yes, describe potential impactsThe Project would not impact wetlands within the study area. Potential impacts to streams and riparian buffers were calculated within the Project study area. Where proposed new slope stakes were present, impacts were calculated using slope stakes for the Project footprint, plus an additional 25 feet of buffer on each side of the slope stakes to assess for potential disturbances. The remainder of the Project would stay within the existing roadway footprint and no work would be proposed outside of the existing roadway. Therefore, no impacts are anticipated. Where the Project would operate in mixed traffic and no improvements would be proposed, it is assumed that there would be no impacts to streams, riparian buffers, and wetlands. Tables 8 and 9 from Appendix C- Natural Resource Technical Memorandum outline the potential impacts.  |
| **S.** | **Construction Impacts** Describe the construction plan and identify impacts due to construction noise, utility disruption, debris and spoil disposal, and staging areas. Address air and water quality impacts, safety and security issues, and disruptions to traffic and access to property. The Project would include the construction of dedicated bus lanes and raised grass islands in the median of New Bern Avenue from Poole Road to Sunnybrook Avenue, re-construction of road pavement (particularly the Poole Road intersection), resurfacing and re-striping of existing traffic lanes to accommodate dedicated bus lanes, re-construction of curb and gutter, construction of the proposed BRT stations, sidewalk improvements and multi-use path, median landscaping improvements, and utility relocations. As the proposed Project would primarily be constructed within the existing transportation right-of-way, construction impacts would mostly occur within previously disturbed areas. Construction Impacts by Resource*Traffic*Traffic delays would likely occur during construction but would be temporary in nature. Temporary traffic lane shits and detours with alternative routing and appropriate signage would be provided to maintain access for vehicular traffic, bus routes, and pedestrians. There would be impacts to business access and neighborhoods due to the permanent closure of the existing dedicated left-over lanes and U-turn locations in the median of New Bern Avenue from Poole Road to Donald Ross Drive. However, access to businesses would be maintained with other driveways, and no business or residence would be acquired due to a lack of access. Temporary construction impacts would alter existing traffic routes. Coordination with NCDOT would be required to temporarily re-route traffic during construction. Local businesses and residents would be contacted to inform them of temporary closures or detours due to the proposed construction. A detailed traffic maintenance plan would be developed during the final design phase. Coordination with the City of Raleigh Emergency Management & Special Events Office would be important to ensure that emergency vehicle access is not impeded. The City of Raleigh would coordinate with GoRaleigh and GoTriangle to communicate the need for temporary relocation of any existing bus stops or detours during construction. To reduce the temporary traffic delays or detours at a location at any given time, the Project construction schedule may be sequenced so that the entire corridor is not under construction at once. Therefore, traffic impacts would be staggered across the alignment and would be short-term at any one location. *Historic and Cultural Resources*The Section 106 consultation for the Project is ongoing and the FTA will determine effects to eligible historic or cultural resources. The Section 106 consultation will be concluded before any groundbreaking or staging occurs.*Noise and Vibration*Construction noise and vibration impacts for pedestrians, adjacent neighborhoods, and businesses are anticipated but would be temporary. The level of noise and vibration impacts due to construction activities would be dependent on the types of equipment used. To reduce the temporary noise and vibration impacts at a location at any given time, the Project construction schedule may be sequenced so that the entire corridor is not under construction at once. Therefore, construction noise and vibration would be staggered across the alignment and would be short-term at any one location. Due to the short-term nature of construction at any one location, there are no substantial noise or vibration impacts anticipated for the Project.*Air Quality*  The construction contractor would be required to implement BMPs to minimize fugitive dust emissions during activities where there is potential to disturb large quantities of soil or particulate matter. Such BMPs may include limiting work activities that may generate dust to less windy days, minimize disturbed surface area, or apply dust suppression as needed. There would be no substantial impacts to air quality during construction.*Water Resources*No substantial impacts are anticipated to water resources during construction. To address the concerns expressed by NCDWR and USFWS, best management practices, (e.g., silt fencing, reduce the amount of clearing, and maintain natural vegetated buffers on streams and creeks, to the extent practicable) are recommended during construction to minimize the potential for effects to aquatic habitat and species.*Hazardous Materials*Potential contamination areas were identified through limited Phase I ESAs and discussed in the Hazardous Materials section of this document. Sites of concern would be shared with the construction contractor prior to the start of any ground disturbing work. Procedures for identifying, managing, storing, and disposing of hazardous or contaminated materials, such as groundwater or soils, would be developed by the construction contractor and approved by the City of Raleigh prior to construction. *Utilities*The Project is currently being evaluated for utility relocations required to accommodate the proposed dedicated lanes, BRT infrastructure, and proposed BRT stations. Where utility relocations would be required, the work could be completed jointly with other construction activities to minimize any additional impacts to traffic or noise. The City of Raleigh would coordinate with utility companies prior to construction and until utility relocations are complete. *Safety and Security*Safety and security measures would be implemented to protect pedestrians and bicyclists during construction. These safety measures would be developed by the construction contractor and approved by the City of Raleigh prior to construction, and would address the safety of bystanders and vehicles around any sort of open or exposed excavations and would recommend mitigation measures, such as construction fencing, signage, and security fencing around equipment/staging areas.  |
| **T.** | **Cumulative and Indirect Impacts** Are cumulative and indirect impacts likely?[ ]  No [x]  Yes, describe the reasonably foreseeable:**a) Cumulative impacts, which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes them. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.**Cumulative impacts are the combined effect of direct and indirect impacts resulting from the proposed Project, as well as past, present, or reasonably foreseeable future actions of other entities within the Project study area. Reasonably foreseeable future actions were limited to projects that are included in adopted state, County or City plans or are associated with approved development plans. Cumulative impacts may occur within the Project study area or may extend outside this boundary. Impacts related to changes in land use and development are likely to be concentrated within reasonable walking distances of proposed stations. When reviewing the Project study area for past projects, there have been limited public investments and private developments that have occurred along the corridor since the adoption of the 2016 Wake County transit tax and the Wake County Transit Plan. The transit tax and Wake County Transit Plan, which respectively provide funding and establish timelines for the funding and completion of adopted transit projects in the County. Relevant resource areas for the Project are evaluated below for potential cumulative impacts based on the discussed methodology. *Transportation*The Project corridor was evaluated for other transportation projects which may, along with the Project, cumulatively impact traffic. New Bern Avenue (US-64) was identified as a NCDOT Strategic Transportation Corridor (STC) and is intended to serve as a core part of the state’s high-priority transportation network. The goal of the STC Policy is:* To provide essential connections to national transportation networks
* To facilitate significant high-volume, inter-regional movements of people and goods; and
* To support economic development and efficiency of transport logistics for economic regions and activity centers.

The Capital Area Metropolitan Planning Organization (CAMPO) 2045 Metropolitan Transportation Plan (MTP) identifies two other transportation projects in the Project corridor: a road widening project south of New Bern Avenue on New Hope Road and a center turn lane project on Trawick Road. Additionally, a project included in the NCDOT State Transportation Improvement Program (STIP) would improve and manage the I-440 freeway adjacent to the Project. Although these NCDOT projects would occur in the Project corridor, the Project is anticipated to minimally improve traffic impacts along the corridor and would not contribute to cumulative impacts for traffic.  |
|  | Delays associated with Project construction may cause travelers to change travel paths, including transit trips, during construction. Travelers may retain these altered patterns after the completion of the project. However, traffic volumes on streets that may be used as alternate routes are not expected to degrade beyond the current levels of service. The City of Raleigh’s New Bern Avenue pedestrian improvements project on New Bern Avenue from Tarboro Street to Sunnybrook Road was identified in the STIP as a project eligible to receive Congestion Mitigation and Air Quality Improvement (CMAQ) funds. The project is currently in the design phase and would include 8-foot to 14-foot sidewalks/multi-use paths and pedestrian signalization. When combined with the Project’s improved access to transit amenities, the Project corridor would experience an overall benefit to bicycle and pedestrian connectivity and safety.*Land Use* The City of Raleigh’s 2030 Comprehensive Plan includes policies promoting TOD within one-half mile around planned BRT station areas and developing sites with intense residential and mixed-uses. The Plan generally identifies the same land use types for future land use as compared to existing land use, although there are some changes from more residential and industrial to community mixed-use east of I-440. As stated in the Equitable Development Around Transit (EDAT) *Growth Analysis Memorandum*, changes in existing land uses are not likely to result from the Project due to nature of existing development. The exception to this is the possible development of TOD mixed-use developments surrounding the proposed stations. Though the number of potential TOD developments is likely to be influenced by the limited supply of sites available for redevelopment, which are predominately located on existing commercial sites with direct access to New Bern Avenue east of Poole Road. Therefore, cumulative land use impacts due to the Project are anticipated to be minimal. Recently, trends in the neighborhoods surrounding the corridor suggest gentrification-like cycles of investment are already in effect prompting changes in homeownership patterns away from existing residents to residents of higher income who can afford the cost of renovating existing homes. This in turn has started trends towards higher home prices and resident populations with higher incomes than previously existed. Various factors have likely influenced this trend ranging from regional housing market conditions to consumer preferences. The construction of the project would increase the proximity from downtown to residences that are in the vicinity of proposed stations. This may increase the desirability of these residences and could lead to greater levels of investment than currently exist. The Project is expected to have a low to moderate impact on gentrification-like cycles of investment with the consideration that many factors are influential in this process. An affordable housing project is proposed in the Project corridor, within an EJ area, on the south side of New Bern Avenue east of Raleigh Boulevard. The project is a proposed partnership between local developers, including a local non-profit organization, to construct 150-affordable housing units for senior citizens. The rezoning was submitted to the City of Raleigh in January 2020 and is under review. If approved, construction is expected to occur in 2022. This project could help maintain affordable housing options in East Raleigh and provide easy access to public transit, particularly for those who may need ADA-compliant facilities. The affordable housing project may also induce development; senior homeowners may look to sell their homes and relocate to the affordable housing, allowing incoming homebuyers and real estate developers to buy and renovate the properties, thereby driving up housing market prices. *Historic and Cultural Resources*As discussed above, the corridor is anticipated to continue to develop with potential TOD as well as private development. Increases in development around the Project could potentially result in effects to historic and cultural resources in the corridor. Section 106 consultation is ongoing and would be concluded before any groundbreaking or staging occurs. **b) Indirect impacts, which are caused by the action but are later in time or farther removed in distance, yet are still reasonably foreseeable. Indirect impacts may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air, water and other natural systems, including ecosystems.**In parallel with the environmental analysis for the Project, an Equitable Development Around Transit (EDAT) study is underway for the four proposed BRT corridors identified in the Wake County Transit Plan. The goal of this study is to create a common vision for the future of TOD in the City of Raleigh by creating a policy foundation and framework in a Citywide TOD Guidebook. This Guidebook is intended to realize the benefits of BRT in Raleigh and identify a goal for the proportion of the City’s growth that should be accommodated along the BRT corridors. Under this larger study, a Growth Analysis Memo was drafted in December 2019, which analyzes the growth potential around the four proposed BRT corridors, including the proposed Project. The findings concluded that the Project presents limited large-scale development opportunity, due to established neighborhoods near the alignment. Infill development would likely be small in scale, given the lack of large available sites. Induced growth associated with the Project could result in indirect impacts to property owners and businesses along the corridor. A reduction in affordable housing or displacement of existing residents would be a possible effect of induced growth and land use changes with the addition of the proposed BRT stations. Another possible result of growth would be a reduction in parking or increased traffic on neighborhood roads. Land use changes would occur in accordance with City of Raleigh and Wake County planning and re-zoning approvals. Since the Project and any indirect land use changes would be consistent with local planning, the Project is not anticipated to have significant impacts to available housing or property availability.   |
| **U.** | **Property Acquisition** If property is to be acquired for the project, indicate whether acquisition will result in relocation of businesses or individuals. **Note:** For acquisitions over $500,000, FTA concurrence in the property’s valuation is also required.

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| --- | --- |
| TYPE | TOTAL (acres) |
| Full Acquisition (including one business relocation) | 1.45 |
| Partial Acquisition | 1.35 |
| Temporary Construction Easement | 2.38 |

As the proposed Project would primarily be constructed within the existing transportation right-of-way, any acquisitions or temporary construction easements are anticipated to be minimal and would mostly occur directly adjacent to the Project alignment. Partial acquisition would be required from five parcels, particularly near the western end of the corridor, between Person Street and Poole Road. Total acreage for partial acquisitions is approximately 1.35 acres.The proposed East Raleigh park-and-ride would require two full acquisitions and one partial acquisition. The partial acquisition, located at the intersection of Lake Woodard Drive and New Hope Road, would be needed for stormwater drainage. The full acquisition parcels would total approximately 1.45 acres and the partial would total approximately 1.26 acres. The proposed 100-space East Raleigh park-and-ride would be constructed on the two full acquisition parcels, located between Wilders Grove Lane and New Hope Road. There would be one business (New Hope Auto Service) that would be relocated due to the proposed East Raleigh park-and-ride. During the final design phase of the Project, the City of Raleigh would re-evaluate the proposed acreage impacts associated with partial and full acquisitions and consult with the FTA. No historic resources are anticipated to be impacted by acquisitions.There would be impacts from changes to business access and neighborhoods due to the permanent closure of the existing dedicated turn lanes and U-turn locations in the median of New Bern Avenue from Poole Road to Donald Ross Drive. However, access to businesses would be maintained with other driveways, and no business or residence would need to be acquired due to a loss of access. Temporary construction easements would also be required for several parcels on the corridor, totaling approximately 2.38 acres. Access to properties and business would be maintained during construction, though businesses and adjacent residences may experience temporary loss of some on-street parking during construction. Additional discussion about parking can be found in Section III(C).  |
| **V.** | **Energy**If the project includes the construction or reconstruction of a building, identify potential opportunities to conserve energy which could be employed. This includes building materials and techniques used for construction; special innovative conservation features; fuel use for heating, cooling and operations; and alternative renewable energy sources. Several goals in the City of Raleigh 2030 Comprehensive Plan focus on energy conservation and renewable energy initiatives, particularly when constructing new buildings or retrofitting older buildings during remodeling. In accordance with these policies, the City of Raleigh would evaluate incorporating energy efficient materials, such as solar panels and LED lighting, into the proposed BRT stations and East Raleigh park-and-ride.      |
| **W.** | Public InvolvementDescribe public outreach efforts undertaken on behalf of the project. Indicate opportunities for public meetings (e.g. board meetings, open houses, special hearings). Indicate any significant concerns expressed by agencies or the public regarding the project.Public outreach for the Project has been ongoing and has been intended to provide the public with the opportunity to comment on the proposed design. The City of Raleigh has had over 70 touchpoints with the public since May 2019 (Table 1 in Appendix I- Public Involvement). Additionally, two public meetings were held at Martin Street Baptist Church, located south of New Bern Avenue in an area of EJ populations. The first meeting was on June 25, 2019 from 4PM – 7PM and the second meeting was on October 29, 2019 from 4PM – 7PM. The first meeting focused on high-level information surrounding BRT technology, the goals of the Project, and the proposed station locations. The second meeting focused on design level items such as renderings of a sample BRT station, identifying what amenities were important at BRT stations, and where Citrix bicycle stations should be located along the corridor. Both meetings were open-house style and included a presentation by the City of Raleigh. The meetings were advertised using several methods, including on bus placards, postcard distribution, message boards at GoRaleigh Station, postcard distribution, and email blasts. A total of 209 people signed in to the two meetings. Translators were present for attendees who had requested Spanish interpretation and Spanish meeting materials were available. In addition to the two formal public meetings, staff has attended several pop-up events to provide information about the Project. Pop-up events include Citizen Advisory Council meetings, an event at Martin Street Baptist Church (in a Project EJ area), the Center for Hispanic Families, the Tamale Festival at Dorothea Dix Park, and an event at the Richard B Harrison Community Library (in a Project EJ area). Additional small group and community meetings to be held within the study area would continue throughout the course of the project. A full list of public engagement activities can be found in Table 1 in Appendix I- Public Involvement.Comment forms were available at the two open-house public meetings and an online survey was created to provide those who could not attend the opportunity to provide input. Common themes heard from the public that were generally in favor of the Project included:* Like dedicated transitway and wish there was more of it
* Support the pedestrian and bicyclist improvements and promote easy access to and from stations
* Hope that it will make transit travel times faster and more reliable

Common themes heard from the public that were generally opposed to the Project included:* Neighborhood displacement
* Redevelopment/Affordable housing
* Safety of bicycles and pedestrians along the corridor
* Left BAT slowing down the buses

During the second open-house public meeting, attendees were encouraged to review a list of 18 station amenities and rank which were most important to them as a rider. Weather protection canopies and real-time digital bus arrival information received the most votes. These top amenities and other top-scoring station features would be incorporated into the design where possible. In addition to the meeting exercise, public comments have helped to inform the Project design (Table 2 in Appendix I- Public Involvement). |
| **X.** | **Mitigation Measures** Describe all measures to be taken to mitigate project impacts.*Transportation & Parking*Coordination with NCDOT would be required to temporarily re-route traffic during construction, and to install appropriate signage to alert drivers of the new transitway once it is operational. Local businesses and residents would be contacted to inform them of temporary closures, detours, or temporary loss of parking due to the proposed construction. A detailed traffic maintenance plan would be developed during the final design phase. Coordination with the City of Raleigh Emergency Management & Special Events Office would be important to ensure that emergency vehicle access is not impeded. The City of Raleigh would coordinate with GoRaleigh and GoTriangle to communicate the need for temporary relocation of any existing bus stops or detours during construction. To reduce the temporary traffic delays or detours at a location at any given time, the Project construction schedule may be sequenced so that the entire corridor is not under construction at once, allowing traffic impacts to be staggered across the alignment and would be short-term at any one location. Additionally, the City of Raleigh would develop an education program to teach drivers, and bus drivers, on the proper use of dedicated transitways and TSP. *Visual*The Project’s BRT station design would continue to incorporate features that would be meant to tie in to the existing communities they serve and fit the general character of the neighborhood. *Hazardous Materials*Procedures for identifying, managing, storing, and disposing of hazardous or contaminated materials, such as groundwater or soils, would be developed by the construction contractor and approved by the City of Raleigh prior to construction. *Noise and Vibration*To reduce the temporary noise and vibration impacts at a location at any given time, the Project construction schedule may be sequenced so that the entire corridor is not under construction at once. Therefore, construction noise and vibration would be staggered across the alignment and would be short-term at any one location.*Historic and Cultural Resources*Section 106 consultation is ongoing and would be concluded prior to any ground disturbance or staging occurs.*Water Resources* To address the concerns expressed by NCDWR and USFWS, best management practices (e.g., silt fencing during construction to minimize the potential for effects to aquatic habitat and species, reduce the amount of clearing, and maintain natural vegetated buffers on streams and creeks) would be used. The project also would use permanent stormwater measures, including vegetated conveyance and infiltrative type stormwater control measures along the BRT lanes between Poole Road and Sunnybrook Road where the majority of new impervious area would be located. The Project would comply with local stormwater requirements. The final design would comply with any required permitting requirements and any applicable state and/or local requirements (e.g., Neuse Buffer Rule requirements). |
|  | *Public Parklands* At this time, traffic control plans were not available due to the preliminary level of the designs. Traffic control plans would avoid reductions in pedestrian, bicycle, or vehicular access to public parklands. Should designs change and require a temporary closure or routing (shorter than the duration of construction) or a longer-term closure or routing, the City of Raleigh would consult with FTA to re-evaluate the potential effects, if necessary coordinate/consult with the OWJ (City Parks and Recreation Department), and determine if there would be a resulting impact or use.*Safety and Security*Safety and security measures would be implemented to protect pedestrians and bicyclists during construction. These safety measures would be developed by the construction contractor and approved by the City of Raleigh prior to construction, and would address the safety of bystanders and vehicles around any sort of open or exposed excavations and would recommend mitigation measures, such as construction fencing, signage, and security fencing around equipment/staging areas. *Public Involvement*Additional small group and community meetings would continue to be held within the study area throughout the course of the Project.  |
| **Y.** | **Other Federal Actions** Provide a list of other federal NEPA actions related to the proposed project or in the vicinity.* U.S. Army Corps of Engineers - Jurisdictional determination/Section 404 permit
* City of Raleigh New Bern Avenue pedestrian improvement project- The project is eligible to receive CMAQ funds and would require a NEPA analysis. At the time of this document, it is unknown what type of environmental document would be prepared for the streetscape improvement project.
* NCDOT projects- There are three roadway projects adjacent to the Project: a road widening project south of New Bern Avenue on New Hope Road, adding a center turn lane on Trawick Road, and improvements to the I-440 freeway adjacent to the Project. At the time of this document, it is unknown what type of environmental document would be prepared for the roadway improvement projects.
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| **Z.** | State and Local Policies and Ordinances Is the project in compliance with all applicable state and local policies and ordinances?[ ]  No, describe noncompliance:      [x]  Yes |
| **AA.** | **Related Federal and State/Local Actions** **[x]** Corps of Engineers Permit (Section 10, Section 404)[ ]  Coast Guard Permit[ ]  Coastal Zone Management Certification[ ]  Critical Area Ordinance Permit[ ]  ESA and EFH Consultation[ ]  Floodplain Development Permit[ ]  Forest Practice Act Permit[ ]  Hydraulic Project Approval[ ]  Local Building or Site Development Permits[ ]  Local Clearing and Grubbing Permit[x]  National Historic Preservation Act-Section 106 consultation[x]  National Pollutant Discharge Elimination System General Construction Permit[ ]  Shoreline Permit[ ]  Solid Waste Discharge Permit[ ]  Sole Source Aquifer Consultation[x]  Section 4(f) (Historic or Recreational Properties; Wildlife Refuges)[ ]  Section 6(f) (Recreational Properties)[x]  Section 106 (Historic Properties)[ ]  Stormwater Site Plan (SSP) [x]  Temporary Erosion and Sediment Control Plan (TESC) [ ]  Water Rights Permit[x]  Water Quality Certification—Section 401[ ]  Tribal Consultation or Permits (if any, describe below)[ ]  Other Others (describe as applicable):      |
| **Submitted By (name, title):** | **Date:** |

Please submit an electronic copy of this form, attachments, and a signed transmittal letter recommending a NEPA finding to either julia.walker@dot.gov or stanley.a.mitchell@dot.gov

#### For links to further topical guidance, please visit Region 4’s webpage.