

CHAPTER 7

7.0 IMPLEMENTATION TOOLKIT

This chapter presents a project implementation “tool kit” that consists of policies, regulations, and strategy options that have been successfully used by other local governments to implement their projects. Also included are example cases to demonstrate their manner of implementation. These tools have been provided to assist CAMPO, Franklin County and the Town of Franklinton in their development of harmonized land use and transportation policies that will facilitate the ultimate vision for the US 1 corridor in the Phase II study area.

7.1 Amending the 2007 Memorandum of Understanding

In 2007, the agencies shown below in Table 7-1 signed a Memorandum of Understanding (MOU) to manage land use development along the US 1 corridor. The agencies shown have planning jurisdiction in the study area, or are responsible for public investments along the corridor. The 2007 MOU established a common direction and vision, contained commitments, and identified the roles and responsibilities of the signatory agencies.

Table 7-1. Signatories of the 2007 US 1 Phase I Study Corridor MOU

Municipalities	Counties	Transit Agencies	Government Agencies
Raleigh	Franklin	Capital Area Transit (CAT)	NC Capital Area Metropolitan Planning Organization (CAMPO)
Wake Forest	Wake	Kerr Area Rural Transit System (KARTS)	NC Department of Transportation (NCDOT)
Youngsville	--	Triangle Transit Triangle Transit	--

The 2007 MOU also established the US 1 Council of Planning (COP), which is the advisory group with an oversight role on land use and transportation decisions along the US 1 corridor. The COP meets periodically to:

- Review land use developments and transportation projects that will impact congestion and travel movements;
- Review changes to the US-1 Corridor Plan; and
- Develop and/or update a Comprehensive Land Use Plan that facilitates land use developments along the corridor that are compatible with the US 1 transportation recommendations.

The Council of Planning serves in advisory role to provide local jurisdictions and agencies that may not have specialized staff or resources to provide technical guidance for assisting local decision makers in the development approval process. The MOU clearly indicates that COP guidance is strictly limited to recommendations. Approval authority (i.e., conditions set for the approval of a development request) remains the sole responsibility of the local jurisdiction. The COP review process provides assistance specifically suited to communities like Franklinton or Franklin County.

Because the Phase II study is a continuation of the Phase I study, the Phase II study partnership agencies prepared a draft amendment of the 2007 MOU which includes the following new elements:

- Adding the Phase II study as part of the project discussion;
- Including the Town of Franklinton as part of the US 1 COP; and
- Extending the US 1 corridor limit to the Vance County line.
- Amendment of the current bylaws (adopted on September 16, 2010)

Upon approval of the amendments by the partnership agencies (shown in Table 7-1) the updated MOU will be the guiding document for the US 1 corridor. A copy of the 2007 MOU with recommended amendments is shown in green highlight is included in Appendix A. On August 30, 2012, the US 1 Council of Planning met and voted to approve the language of the revised MOU. It is anticipated that it will be distributed to the signatory agencies in the upcoming months for final approval and acceptance.

7.2 Adding Partnering and Cooperative Agreements

In the longer-term, additional partnering and cooperative agreements can be considered by the partnership agencies for better management of the US 1 corridor. These potential future agreement types are briefly discussed below:

7.2.1 Intergovernmental Cooperative Agreements (ICA)

An ICA is a legal instrument authorized by state law between two or more units of government, in which the parties contract for the performance of a specific function through either mutual or delegated responsibilities. The ICA works best when revenue sharing or financial obligations are clearly defined. This is the most binding form of intergovernmental cooperation.

As part of a future ICA for the US 1 corridor, the US 1 COP could explore opportunities to introduce new express bus services along the US 1 corridor between Franklinton and the

Triangle Town Center through partnerships between Triangle Transit, NCDOT and Franklin County. The express bus service would be eligible for three years funding with Congestion Mitigation and Air Quality (CMAQ) funds, which are typically allocated to projects that demonstrate reductions in vehicle miles traveled (VMT) and air quality emissions.

This mechanism will likely be required for Franklinton and/or Franklin County in future extensions of service for Express Bus or other transit services. These agreements could be developed with transit agencies such as Triangle Transit or KARTS as well as other local jurisdictions such as Youngsville, Wake Forest, and Louisburg.

Example Case

The City of Durham signed an ICA with the Triangle Transit in 2010 for operational and route planning services for the Durham Area Transit Authority's fixed route bus services. Triangle Transit also entered into an agreement with the City of Raleigh in 2009 for the operation of express bus service between Wake Forest and downtown Raleigh.

7.2.2 Public-Private Partnerships (3P)

Public-private partnerships are a general term for collaborative relationships between public agencies and private entities to expedite project delivery. Potential 3P approaches relevant to the US 1 project area include agreements with:

- The Food Lion plaza property owner leasing parking spaces for transit users;
- A private contractor operating express bus services along US 1; and
- A utility provider addressing joint occupancy of public right-of-way.

Large scale public-private partnerships have limited application in Franklinton and Franklin County, but there are opportunities for smaller scale agreements. These could range from the examples above as well as negotiating direct funding or construction of local streets or intersection improvements.

Example Case

The Greater Cleveland Regional Transit Authority's bus rapid transit (BRT) provides service along the Euclid Avenue corridor, which runs from downtown to East Cleveland. A partnership between the Regional Transit Authority, University Hospitals, and the Cleveland Clinic allowed these institutions to purchase the naming rights for this BRT service. The Euclid Corridor BRT line was later named the Health Line. The funds generated from this P3 and other sponsorship agreements were used to develop branding and maintenance of the BRT stations.

7.3 Adopting Corridor Study Recommendations into Transportation Plans and Programs

Adopting the US 1 Phase II Corridor Study recommendations into relevant local, regional, and state plans is required for seeking state and federal funds for the US 1 corridor projects. These plans incorporate all modes of transportation including bicycle, pedestrians, and transit in addition to roadway and street improvements. It is a critical step in the project process to have specific projects identified as part of these plans in order to pursue or secure funding for all aspects of the projects from planning and design through construction. CAMPO and NCDOT are key partners with Franklinton and Franklin County in formalizing these plans.

7.3.1 2040 Metropolitan Transportation Plan (MTP)

One purpose of the US 1 Phase II Corridor Study is to update, support, and refine the Triangle region's *2040 Metropolitan Transportation Plan (MTP)*. It is developed cooperatively by CAMPO and the Durham-Chapel Hill-Carrboro MPO. The MTP is the region's fiscally constrained plan to guide investments in roadway, transit, bicycle, and pedestrian improvement projects through 2040.

Projects identified as needed in years beyond 2040 will be included in the Comprehensive Transportation Plan (discussed below) element of the MTP, which is the vision element of the plan that is not fiscally constrained.

The process of incorporating the Phase II Corridor Study's recommended transportation improvements into the 2040 MTP begins with a presentation of the recommendations to the CAMPO Technical Coordinating Committee (TCC). Upon satisfactory review of the recommendations, the TCC will endorse and recommend them for inclusion in the 2040 MTP.

7.3.1.1 Evaluation MTP Updates for Transportation Conformity

Prior to formally adopting updates to the 2040 MTP, all transportation projects recommended for addition will need to be evaluated for transportation conformity. Transportation conformity is a process to demonstrate that the recommended transportation projects will not negatively impact air quality in the region.

Transportation conformity applies to transportation plans and projects funded and approved by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA) in areas that do not meet required air quality standards. These areas are referred to as non-attainment areas or maintenance areas (see project area air quality discussion in Chapter 3).

The transportation conformity determination process requires formal agency consultation between the US Environmental Protection Agency (EPA), FHWA, FTA, NCDOT, and CAMPO.

7.3.2 Franklin County Comprehensive Transportation Plan (CTP)

The recommended improvements for highway, bicycle, pedestrian and transit will need to be incorporated into the current *Franklin County Comprehensive Transportation Plan (CTP)* (see discussion of these improvements in Chapter 6).

The process of incorporation into the CTP involves a presentation of the US 1 Phase II Corridor Study recommendations to the Franklin County Board of Commissioners, followed by approval by the Board and incorporation into the CTP. After incorporation of recommended improvements, the CTP also will need to be endorsed and adopted by agencies and municipalities with jurisdiction in the study corridor, including CAMPO and NCDOT. The portion of the Franklin County CTP that lies within the CAMPO planning area will be incorporated into the overall MPO's CTP element of the Metropolitan Transportation Plan.

The CTP is a multi-modal plan addressing bicycles, pedestrians, and transit in addition to roadway facilities. It includes all sizes of projects from major regional expressways and freeways to local streets, greenways, and sidewalks. The plan also addresses maintenance and operations projects including transit operating costs.

7.3.3 State Transportation Improvement Program (STIP)

The *State Transportation Improvement Program (STIP)* lists the projects included in the NCDOT's Work Program, and provides prioritization, costs and schedules for each project. The STIP is organized by NCDOT division (Highway, Rail, Bicycle and Pedestrian, Ferry, Enhancements, and Public Transportation). Franklin County is in Highway Division 5.

The Highway Division part of the STIP is organized by project type (i.e. highway, bridge, urban loop, bicycle and pedestrian improvement, etc.). The STIP is updated every other year. The Phase II Corridor Study recommendations would need to be reviewed and approved by NCDOT for inclusion into the next update cycle (2014 to 2020). Before consideration as part of the STIP by NCDOT, the plan elements need to be incorporated into CAMPO's MTP.

7.3.4 Metropolitan Transportation Improvement Program (TIP)

The *Metropolitan Transportation Improvement Program (TIP)* is a defined subset of NCDOT STIP projects that fall under the jurisdiction of CAMPO. The current TIP is for years 2012 through 2018. The Phase II Corridor Study recommendations would need to be reviewed and approved by CAMPO for inclusion into the next TIP.

7.3.5 Triangle Transit Short-Range Transit Plan (SRTP)

Triangle Transit is responsible for operating regional bus service within Wake, Durham and Orange Counties, and has the ability to operate services in areas up to five miles beyond those County boundaries. Triangle Transit's *Short-Range Transit Plan* (SRTP) is a five-year transit operating plan and capital improvement program for the Triangle Transit's public transportation and ridesharing services. The current version of the SRTP was adopted in September 2011 by the Triangle Transit Board of Trustees.

The transit recommendations of the Phase II Corridor Study will need to be reviewed by Triangle Transit for inclusion in the next update of the SRTP. The Triangle Transit, CAMPO, NCDOT, and Franklin County contingent of the US 1 COP will need to jointly identify capital and operating funds for any new recommended transit services. This contingent may consider the possibility of targeting federal livability and TIGER grants.

7.3.6 KARTS Short-Range Transit Plan (SRTP)

Operating under the Kerr-Tar Rural Planning Organization, KARTS is a four-county public transportation program serving both the general public and the clients of human service agencies in Franklin, Granville, Vance and Warren Counties. The Kerr-Tar Rural Planning Organization's *Locally Developed Coordinated Human Services Public Transportation Plan* (April 2009) is a transit operating and funding plan for KARTS and other transit systems in the Kerr-Tar region.

KARTS receives administrative funds from the NCDOT and matching funds from the counties of Franklin, Vance, Warren, and Granville. The NCDOT funds requested for 2010 was \$784,022 and current funding from the four counties is \$102,996 for a total year 2010 funding of \$887,018. According to the plan's prioritization needs, which was based on a workshop and needs assessment survey conducted in 2007, survey participants had indicated the need for a circulator service as top priority. This was closely followed by the preference for a fixed-route transportation system. These findings were included in the plan's final recommendations.

The transit recommendations of the Phase II Corridor Study incorporate short and long-term transit improvements that will need to be reviewed by the Kerr-Tar Rural Planning Organization and KARTS for possibly inclusion to their public transportation plan. The Kerr-Tar Rural Planning Organization, NCDOT, and Franklin County contingent of the US 1 COP will need to jointly identify capital and operating funds for recommended transit services.

7.3.7 NCDOT Bicycle and Pedestrian Planning Grant Initiative

In recent years, communities throughout North Carolina have begun to place more emphasis on providing facilities for biking and walking. A desire for better modal choices, the demand for more walkable and bikeable communities, and a focus on smart growth initiatives have combined to highlight the need for better, more complete bicycle and pedestrian transportation systems. Comprehensive planning documents are an integral part of developing these systems, and can guide both local and state efforts to improve conditions for bicycling and walking.

To encourage the development of comprehensive local bicycle plans and pedestrian plans, the NCDOT Division of Bicycle and Pedestrian Transportation (DBPT) and the Transportation Planning Branch (TPB) have created a matching grant program to fund plan development. This program was initiated through a special allocation of funding approved by the North Carolina General Assembly along with federal funds earmarked specifically for bicycle and pedestrian planning by the TPB. Since 2004, 135 municipal plans have been selected and funded from 321 applicants. A total of \$3.6 million has been allocated, with 2012 funding at \$400,000.

As a North Carolina municipality, Franklinton is eligible to apply for a pedestrian or bicycle planning grant. Although regional plans are not currently funded, the relevant approval processes and procedures of MPO organizations should be followed. A resolution from CAMPO would be required prior to awarding funds.

For a community the size of Franklinton, NCDOT planning grant funds would cover 80 percent of costs with a local funding match of 20 percent. For a town with a population less than 10,000, NCDOT's funding cap ranges is \$28,000 for a bicycle plan and \$24,800 for a pedestrian plan in 2012. Note that this program is limited to municipalities only. Franklin County would be ineligible for a grant.

Plans may be developed by consultants or by a combination of both municipal staff and consultants. A full-time permanent employee of the Town would need to be assigned as project manager to oversee and coordinate the plan development. A task force/steering committee must also be formed to oversee development of the plan.

7.4 Reserving Right-of-Way

The need to reserve right-of-way is recognized in the 2007 MOU, and continues to be recognized in the proposed 2012 MOU. The discussion below presents the regulatory options and current practices that are available to reserve right-of-way for the purpose of implementing the recommended improvements to the US 1 corridor. The right of way can be for multiple

types of projects including roadway widening, new alignment, intersection improvements, or bicycle and pedestrian features such as greenways.

Current regulatory frameworks that are in place in the project area that may be used to reserve right-of-way include the following.

7.4.1 NCDOT Transportation Corridor Official Map Act

NCDOT's *Transportation Corridor Official Map Act* was passed in 1987 for the purpose of controlling the cost of acquiring transportation right-of-way for NCDOT projects. It allows NCDOT to freeze all development along protected road corridors for indefinite periods of time. This, in turn keeps parcel prices low until the point when NCDOT decides whether or not to use the land.

Under the Map Act, the *Transportation Corridor Official Map* was developed and is maintained. The NCDOT Board of Transportation uses the map to reserve right-of-way for future NCDOT projects. The Official Map places temporary (three year) restrictions on private property rights by prohibiting the issuance of building permits or property subdivision approvals for lands within intended new construction or widening rights-of-way. The three year restriction period begins when a request for building permit or subdivision is denied.

Right-of-way for NCDOT led US 1 projects in the Phase II study area can be reserved by request for incorporation of these projects into the Official Map. Proposed local roadway network improvements and connections that may be associated with the NCDOT led projects on US 1 may also be incorporated into the Official Map. The Official Map cannot be used to reserve right-of-way for proposed local roadways that are driven by private development needs. In general, the local roadway improvements would have to be incorporated as an NCDOT project in CAMPO's 2040 MTP and NCDOT's STIP.

The *Transportation Corridor Official Map Act* indicates that preliminary engineering must begin within one year of establishing a project as part of the Official Map. This provision may act as a constraint to longer term reservation of right-of-way, but does not negate the fact that inclusion of lands into the Official Map can be used as a means to secure right-of-way.

The long range nature of the US 1 Freeway improvement makes the *Map Act* a difficult tool to apply within Franklinton and Franklin County. However, closer to project implementation it may become more viable. Note, however, that the *Map Act* may be more applicable in preserving right of way related to the NC 56 Bypass instead of US 1.

7.4.2 Local Jurisdiction Right-of-Way Reservation Policies and Ordinances

Municipalities and local jurisdictions often adopt ordinances that establish policies and procedures for acquiring properties, preserving right-of-way, and protecting transportation corridors. Several examples of this exist from the City of Raleigh, Wake County, and other local jurisdictions. These are discussed below.

Example Case: City of Raleigh

The *2030 Comprehensive Plan for the City of Raleigh* in 2012 is the long range policy document to establish a vision for the City. The Transportation Element of the 2030 Comprehensive Plan contains following policies and implementing action items for right-of-way reservation that are directed at the City's leadership to implement the vision.

- **Policy T 1.2, Right-of-Way Reservation:** *“Support the early identification and acquisition of land for future transportation corridors through land use planning and development permitting.”*
- **Action T 1.1, Corridor Preservation:** *“Create a tool kit of actions to help preserve future transportation corridors through development review and land use planning.”*
- **Action T 2.3, Right-of-Way Reservation:** *“Conduct detailed analyses of proposed corridors and roadway connections to establish alignments, and take proactive steps to resolve future corridors and connections via development coordination or by acquisition.”*
- **Policy T 4.4, R.O.W. Reservation for Transit:** *“Preserve right-of-way for future transit and require that new development and redevelopment provide transit easements for planned alignments, rail stations, and bus stops within existing and planned transit corridors as identified in the Regional Transit Vision”*

Example Case: Wake County

The *Wake County Unified Development Ordinance (UDO)* includes zoning and subdivision regulations related to right-of-way reservation. These regulations are summarized below:

- **Article 3-71, Special Highway Overlay District:** The UDO created an overlay district for transportation right-of-way preservation. This overlay district is intended to be applied to areas identified as Special Transportation Corridors in the *Wake County Land Use Plan*.
- **Section 8-32-6, Article 8, Subdivision Design Improvements - Right-of-Way Dedication:** The UDO states that whenever a road or highway corridor is located on or adjacent to a proposed subdivision, the landowner must dedicate right-of-way needed to construct or widen the road to the right-of-way width indicated in the *Wake County Transportation Plan*.

- **Section 8-32-7, Article 8, Subdivision Design Improvements - Right-of-Way Reservation:** The UDO states that if any part of a subdivision lies within the corridor of a thoroughfare shown the NCDOT Official Map (refer to Section 8.4.1.1), no subdivision approval may be granted for the property located within the roadway corridor.

Each of these three UDO regulations could be applied to apply to US 1. The policies are particularly applicable to a corridor plan including local street connections running along the major corridor. The third regulation may not be directly applicable since it is unlikely that Franklinton or Franklin County would want to prevent development options as a matter of regulation, instead preferring to allow some flexibility in alignment selection. A key element of the US 1 study and plan is the flexibility that can be afforded in shifting local street alignments to serve development while providing a continuous route.

Example Case: City of Durham

The *City of Durham Unified Development Ordinance* contains a *Major Transportation Corridor* overlay zoning district for the purpose of “*enhancing the economic and aesthetic appeal and orderly development of properties adjacent to major transportation corridors*”. This UDO overlay uses buffers as a means of securing additional space for future widening of existing roadways. The spatial extent of this zoning overlay includes all property within 1,250 feet of a designated major thoroughfare, and may extend up to 2,500 feet at intersections.

The width or spatial extent of the Durham overlay zoning district would be applicable to the US 1 plan, particularly the offset of local streets from the main corridor. This would require development of an overlay zoning district by both the Town and County in a cooperative process.

7.5 Utilizing Development Moratoria

Development moratoria are typically established through a jurisdiction’s local law or ordinance. A development moratorium suspends the property owner’s right to develop the property through limitations on subdivision approvals, building permits, and other required permits and approvals by the governing jurisdiction. A moratorium can be applied to a planned transportation corridor.

In 2005, the North Carolina General Assembly amended the zoning statutes to authorize the use of development moratoria by cities and counties. The General Assembly set a number of rules regarding the use of development moratoria, including:

- The moratorium must be adopted as an ordinance by the city or county.

- Adoption of a moratorium should be preceded with a public notice and a public hearing.
- A moratorium should not be applied to development areas or projects with an outstanding approved development plan or building permit, or for development projects with an ongoing permit application to the city or county.

Wake County municipalities that have adopted development moratoria include Knightdale and Zebulon. Orange County municipalities that have done the same include Carrboro and Chapel Hill. Most of the moratoria adopted in North Carolina have been for relatively short durations (generally about six months) and for the purpose of developing regulations for specific land uses or plan updates.

In general, a development moratoria is likely not applicable in Franklin County or Franklinton at this time. The only exception would be if the Town and County did want to update their land use requirements and development regulations. In general, however, this typically occurs in a rapidly expanding development period.

7.6 Acquiring Right-of-Way Prior to Project Initiation

One of the more common methods of right-of-way reservation is to acquire key parcels of land within the future transportation corridor in advance of initiating the project. Local jurisdictions may acquire properties through fee simple land acquisitions, typically by the exercise of eminent domain. Once acquired, the local jurisdiction may bank the property until design and construction begin.

Advantages of early acquisitions include:

- Jurisdictional regulation of the property is avoided.
- Acquired lands may be banked and set aside while other lands are acquired.
- Present purchase cost will likely be lower than costs at project initiation.
- Acquired lands may be used as a means of temporary revenue generation.

Disadvantages of early acquisitions include:

- Property is eliminated from the local tax base.
- Liabilities of managing large tracts of banked properties.
- Cost of maintaining properties (aesthetics and safety).
- Political implications.

Acquisition of right of way would have only limited application for the US 1 mainline corridor. It may have more application as part of the local street network. Given the long term phasing of this project, one potentially applicable practice would be the selective purchase of properties that are already being offered for sale. It may be possible to prioritize some sites to target when they become available, thereby avoid potential condemnation for future construction.

7.7 Utilizing Development Easements and Options to Purchase

7.7.1 Development Easements

An easement is a right of one party to use the real property of another party without having to purchase or obtain the property. A government entity may obtain development easements in order to preserve the land at its present state. Affirmative and negative easements are generally used in providing pathways across a property.

An affirmative easement is the right to use a property for a special purpose that is generally desired by the property owner. A negative easement is the right to prevent the property owner, or a third party, from using or performing general lawful activity on the property.

A government entity may choose to acquire rights to use privately owned lands for a special purpose by either providing utility access desired by the property owner through the land (thereby allowing the government entity to obtain water or sewer access for future development), or levying a restriction that would disallow the private owner from developing the land.

Development easements can be established for roadway corridor preservation by the purchase of development rights to offset the restricted use of the land. In other words, the government agency purchases the right to develop the property, but the property is not owned by the government agency. In addition, the property management and maintenance remains the responsibility of the private owner. Hence, the current condition of the property will be preserved under the terms and conditions of the easement agreement.

Utilizing development easements would have potential application on US 1. One particular focus could be on the ultimate freeway improvements to US 1. The goal is to provide a freeway using the existing right of way, especially in areas where no additional grading is required. In some sections of US 1 right of way narrows to 180 feet. This is less than typically required for a new freeway, but the proposed section could fit the right of way even with 30 foot clear zones.

Nevertheless, in order to pave shoulders and adjust side slopes, some construction easement may be needed. This would be a reasonable application for US 1 improvements.

7.7.2 Options to Purchase

A government agency may participate in a conditional contract to purchase the sole right to buy a property under specific conditions and within a specified timeframe. Options to purchase typically are exercised when a government agency identifies a key property (for transportation improvement) and determines that its value is likely to increase due to development pressure. Under conditions such as these, the government agency can enter into an option to purchase agreement with the property owner, which gives the government agency the right to purchase the property at a negotiated price and within a specified timeframe.

Advantages of development easements and option to purchase agreements include:

- Jurisdictional regulation of the property is avoided.
- Up-front capital costs to acquire property are avoided.
- Acquired properties remain in the local tax base (or until the transaction is complete with options to purchase agreements).
- Option to purchase agreements may allow the agencies to obtain properties at more reasonable costs if bought a “buyers market.”
- Property owners (pre-purchase) are responsible for the maintenance and management of development easements.
- The sale of the land is typically bound to the terms and conditions of the development easement.

Disadvantages of development easements and option to purchase agreements include:

- Option to purchase agreements may be limited to a short timeframe for purchase during a “seller’s market.”
- Development easement agreements are often temporary, and rarely permanent, since the price of the easement is likely affected by its permanency.
- Development easement costs may be dictated by an immediate pressure to develop the property, and therefore may cost as much as the outright purchase of the property.

Setting up future options to purchase may have some application. Given the long term phasing of this project, one potentially applicable practice would be to identify key properties that are not yet required. It may be possible to identify lots that the current owner knows that will

ultimately be sold, but the timing is longer term. A key issue, however, would be setting an adequate time frame so that the option to purchase could reasonably be expected to be exercised.

7.8 Utilizing Exactions

Exactions are used to obtain funding from developers to offset the burdens of their new developments on the municipality or county. They are typically levied on developers in exchange for the approvals to proceed with a project (e.g., amendments to zoning maps, special use conditions, or obtaining permits). Exactions are synonymous with “impact fees” and may be used to build schools, parks or roadways that may or may not serve the new development. Examples of exactions may be used to obtain/reserve right-of-way include the following:

- Right-of-way dedication for streets and utilities (either by ordinance or agreed upon contribution).
- Dedication of land and construction or improvement of streets that would be detrimentally affected by traffic generated by the development.
- Impact fees collected and earmarked for corridor preservation.

Impact fees or exactions could be reasonably applied to development in Franklinton or in Franklin County along US 1. The primary reason is that development in this portion of the County is attracted to the area because of easy access to US 1. In other areas of the County, increasing developer costs may cause developers to examine alternate opportunities.

The local street system would likely be a good target for applying development fees. As part of the access management approval process with NCDOT, the Town or County could require construction of local street sections instead of allowing additional driveways to access US 501 directly. Note that development fees are typically more applicable on larger development projects such as retail centers, industry, or residential subdivisions.

7.9 Utilizing Developer Mitigations

Mitigations are measures used to minimize or eliminate impacts. In the context of facilitating the goals of the US 1 Phase II recommendations, mitigations are in essence “trade-offs” with the municipality or county by the developer for impacts that are anticipated with their new development.

For example: when a new development would degrade a roadway facility’s level of service (LOS) below an applicable threshold, the facility would be considered deficient to support the new development, so the approving authority would seek mitigation of traffic impacts. In this

case, mitigation can take the form of development constraints such: as reducing the number of curb cuts to land uses within the new development; requiring the developer to construct transportation improvements to offset the level of impact; or require the developer to provide a financial contribution to the transportation improvements constructed by others.

The US 1 COP could agree to accept developer mitigation as a funding mechanism for providing a new park-and-ride service in the US 1 corridor. Another possible option is that, as a condition of development approval for more intense development plans with lower on-site parking supply, the US 1 COP could establish a process through which developers can make annual contributions toward a park-and-ride construction fund.

Similar to exactions, developer mitigation could be a valuable tool for Franklin County and Franklinton. This method requires establishment of operational minimums that must be met. For instance, if a developer has identified a site for development, regulations could be set requiring the developer to connect the lots with the sewer and water facilities within each jurisdiction.

7.10 Using Access Management for Implementation

Access management is an implementation strategy that NCDOT and local governments routinely use to control access to highways, major arterials, and other roadways. The benefits of access management include improved mobility, reduced crashes, and fewer vehicle conflicts. The primary concerns about access management are often related to potential reductions in revenue to local businesses, such as gas stations and mini-marts that depend on pass-by traffic. Two very good resources are available for the development or revision of an access management policy for the US 1 Phase II segment. These resources are discussed below.

7.10.1 NCDOT Access Management Policy

NCDOT's *Policy on Street and Driveway Access to North Carolina Highways* is the state's guidance document for approving access points along state-maintained roadways. It also provides guidance for the following concerns:

- Spacing of traffic signals and interchanges;
- Spacing, design, and location of driveways;
- Requirements for exclusive left-, right-, and U-turn lanes;
- Median treatments; and
- Transit, pedestrian, and bicycle safety treatments.

NCDOT's policy should be followed for approving future access points along the Phase II study corridor. Since NCDOT staff would be responsible for granting access to US 1, there is a need for close cooperation with Town or County staff and NCDOT. As part of this approval process, NCDOT could identify required improvements to mitigate traffic impacts. Depending upon the type of projects, it may be possible to implement fairly aggressive access management by requiring superstreet and intersection improvements. Similarly, NCDOT decisions could be that direct access to US 1 is denied and, therefore, the developer must construct sections of the Local Road network.

7.10.2 Transportation Research Board Access Management Manual

Chapter 6 of the Transportation Research Board (TRB) *Access Management Manual* provides information on corridor access management plans. Practical information on a range of issues and applications was incorporated throughout the manual, which appears to draw upon the shared knowledge of the many experienced access management professionals. Some of the access management techniques discussed in this manual includes the following:

- Using frontage and service roads to encourage development.
- Reducing driveways on major thoroughfares.
- Providing local collector roads to develop a network of adequately spaced signalized intersections.
- Land use and zoning incentives to promote node-based developments as opposed to strip developments.

7.11 Using Traffic Impact Analysis (TIA) to Facilitate Development Approvals

It is becoming increasingly more common that agencies require a Traffic Impact Analysis (TIA) to inform and help facilitate the development approval process. In brief, a TIA is an analysis of a proposed development's additional traffic on adjacent transportation networks. It identifies the need for congestion, safety and access improvements and ways to mitigate impacts. Typical TIA conditions reviewed and analyzed are presented in Table 7-2.

The requirement for conducting a TIA is typically applied to larger developments that are anticipated to exceed a pre-determined trip generation threshold (i.e. adding 150 vehicles during a peak hour). The size and detail of a TIA is usually based on the type, size, and location of the development. In developing the requirements for TIA studies, it is necessary for the approving agencies to identify specific criteria for conducting a TIA, such as:

Table 7-2. Typical Conditions Reviewed and Analyzed within a TIA

Conditions Reviewed and Analyzed	Development in the Area		
	Existing	Background*	Background + Proposed Project
	<ul style="list-style-type: none"> Existing roadway network layout and design Traffic volumes Signal timing and phasing LOS Capacity 	<ul style="list-style-type: none"> Growth factors Traffic generation LOS changes Capacity changes 	<ul style="list-style-type: none"> Trip generation Trip distribution Traffic Assignment LOS changes Capacity changes

Note: “Background” development in the area consists of existing development, plus other projects in the area with development approvals.

- Thresholds for when a TIA is required;
- What time periods the analysis must consider;
- The modeling approach that must be used; and
- The LOS threshold that cannot be exceeded by the new development without providing mitigation.

The benefits of having a TIA for proposed development projects include the following:

- The approving agency can better assess if adequate public facilities are in place to mitigate any potential negative impacts from a proposed development when it is combined with other planned/permitted projects in the influence area.
- The approving agency can evaluate whether or not the proposed development is appropriate for the proposed site.
- The approving agency can make better decisions regarding the types of transportation improvements necessary to accommodate traffic growth and mitigate traffic congestion and safety issues.
- The approving agency can better determine the appropriate level and type of improvements that will be developer’s responsibility.

- The approving agency can better decide if the developer of a project in a downtown or high-density urban area has included the appropriate mixture of transportation modes (i.e. passenger vehicles and public transit) in their development design.

The US 1 COP should review the existing TIA ordinances for jurisdictions along the US 1 corridor to obtain an understanding of their current state. After this knowledge is obtained, the US 1 COP can work toward developing consistency and uniformity amongst these ordinances to facilitate an easier development approval process for US 1 improvements. Given that Franklinton and other jurisdictions do not have staff for the review of the reports, it may also be necessary for the COP or NCDOT to provide review and approval of TIAs.

For reference, examples of TIA requirements and regulations from other local jurisdictions are included in Appendix E.

7.12 Additional Technical Information

The Phase II study recommended several congestion management strategies and project development concepts. While these strategies and concepts are familiar to planners and engineers, local elected officials and the general public may need further explanation. For this reason, the discussion below provides a brief description of the different congestion management strategies and project development concepts recommended by the Phase II Corridor Study. Additional technical materials and internet links on these strategies and concepts are provided in Appendix F.

Note: The materials provided in Appendix F were prepared by other agencies as educational materials, thus they are not intended to provide in-depth detail on a particular topic, but rather to provide information that will increase the understanding of these strategies and concepts for non-technical stakeholders and decision-makers. The congestion management strategies and project development concepts recommended or examined in the Phase II Corridor Study are defined as follows:

- **Access Management:** Access management refers to a set of techniques and standards to control access points along highways, major arterials, and other regionally-significant roadways.
- **Superstreets:** A superstreet design uses non-standard intersection and roadway crossing design to change the turning movements of a roadway in order to facilitate safety and improve traffic flow. Drivers on side-streets wanting to turn left or go straight must turn right onto the divided highway, and then make a U-turn through a median cut a short distance away from the intersection. After making the U-turn, drivers can either go

straight or make a right turn at their original intersection. This allows drivers to make the equivalent of a left turn or through movement.

- **NCDOT Strategic Highway Corridors Vision Plan:** This is NCDOT's plan that designates a limited number of in-state highways as Strategic Highway Corridors for the purpose of providing a network of high-speed, safe, and reliable highways throughout North Carolina.
- **Complete Streets:** This is NCDOT's policy to accommodate, whenever feasible, all modes of travel (e.g., pedestrian, bicycle, etc.) in designing new highways, arterials, and collector roads in North Carolina.
- **Bicycle & Pedestrian Treatments:** These are design attributes that are incorporated into transportation infrastructure projects, such as sidewalks, pedestrian signal heads, marked crosswalks, and separate bike lanes, to improve safety for bicyclists and pedestrians along transportation corridors.