

10.1 Why Preserve Corridors?

When a federally-funded new or expanded roadway is planned, an approval process conducted according to the National Environmental Policy Act of 1969 (NEPA) determines whether the transportation corridor is acceptable, given its environmental impacts. This process aims to minimize negative impacts on the environment made by the final alignment of a corridor. Under the current system, acquisition of the land needed for the right-of-way of the transportation facility is intended to begin once the alignment is approved according to NEPA. In fact, the Federal Highway Administration restricts right-of-way acquisitions before the NEPA process is completed, with the intent of avoiding prejudicing the environmental approval process. However, NEPA approval of a corridor can take up to five years; if land within the planned right-of-way is not set aside during this time period, the corridor may be developed, which may require a new location to be found for the corridor and could direct the corridor into environmentally sensitive areas, or areas in or near neighborhoods that will be negatively affected by the roadway. Relocation also requires that plans be redrawn and project development be postponed, increasing the cost of the project. Alternatively, if the corridor is not relocated, development that occurs within it will require transportation agencies to pay much higher prices for land that has been improved while the NEPA process has been underway. Thus, the very process that is meant to ensure that corridor alignments are appropriate may allow private development to occur within the preferred alignment, directing transportation improvements onto sensitive sites or costing transportation agencies far more than is necessary.

In order to avoid development of properties within planned rights-of-way, local, regional, and state planning entities must find ways to protect key sections of planned corridors until construction is set to begin, without contravening the requirements of either NEPA or the FHWA. This can include finding ways to preserve the corridor without acquiring the properties, such as exercising police power, acquiring interests less than fee simple in the properties, or reaching agreements with property owners. Alternatively, the planning entities can find ways to acquire key properties within the parameters of NEPA.

Whether corridor preservation occurs through acquisition in accordance with NEPA requirements, or through methods that are not restricted by NEPA, it is key to avoiding the environmental and capital costs of delaying any control over the planned corridor until NEPA approvals are completed. While corridor preservation is not appropriate or necessary in all cases, it is crucial along corridors that are likely to experience significant development pressure in the near future. However, there may be instances in which a high level of controversy over a proposed improvement makes preservation efforts too contentious to be undertaken.



10.2 When Should Preservation Efforts Begin?

Corridor preservation should begin during the planning and project development process. Once the needed improvements to a roadway and its general corridor have been identified, the improvements should be prioritized. Next, state, regional, and local agencies should collaborate to determine whether the corridor will require protection. If protection will be needed, the planning agencies should determine a more precise location for the corridor, the nature of the threats to the corridor, what preservation actions may be appropriate, how necessary funding may be obtained, and when the actions should be initiated. At this time, they may also consider preserving land to be used for environmental mitigation. For instance, if a right-of-way acquisition will occur in a wetland area, additional land may need to be preserved to act as replacement wetlands after construction begins. These steps should be taken early, so that the necessary actions can be included in the Transportation Improvements Program and coordinated with state, regional, and local transportation entities.

10.3 Communication, Coordination, and Cooperation

Preservation of the land needed for transportation improvements can only be achieved if local, regional, and state planning agencies work very closely together to identify threats to planned rights-of-way and find solutions to them. In reviewing each of the preservation techniques in this report, agencies should aggressively pursue communication, coordination, and cooperation within each agency, among the agencies, and with property owners.

This need for coordination can be formally promoted at the state level. For instance, local jurisdictions can be required or encouraged to notify the state transportation agency before approving any rezoning, building permit, subdivision change, or other permitting activity within a planned corridor. The state can then respond within a set time frame by purchasing the property in question, beginning negotiations with the owner for exercising other preservation techniques, or initiating eminent domain proceedings. State, regional, and local entities may also foster coordination by incorporating tools such as memoranda of understanding into their planning processes, ensuring that all parties with interest in a corridor are united in their efforts to preserve it. For instance, a memorandum of understanding may be issued by a state agency to a regional planning body to communicate full intention to develop a corridor if the regional body preserves land along it.

Even if no formal programs or tools to advance coordination are used, such collaboration should be considered absolutely vital to preservation efforts. This cooperation should help align the goals of planning bodies, as well as bring property owners into close communication with them, so that creative solutions are found, costs are minimized, and lawsuits are avoided.



10.4 Methods for Corridor Right-of-way Protection

10.4.1 State Corridor Management Program

State-level programs can make corridor preservation a priority by establishing a system for identifying and protecting important corridors, including methods for ensuring coordination between jurisdictions involved, and measures for obtaining funding. This type of program can be formal and included in state law, or may be informal. Alternatively, the state may establish a corridor preservation team to address such issues at the state level, or may set up a procedure in which the state formally ensures regional or local entities that if they preserve certain corridors, the state fully intends to develop them. These state programs support corridor management by providing established avenues for uniformly carrying out corridor preservation efforts across the state. North Carolina does not have such a system, but three examples of such state-level corridor preservation programs are described below.

California statutes allow the CalTrans, the state's transportation authority, to pursue corridor preservation, but the identification of corridors to be preserved is undertaken by regional transportation agencies and local municipalities. These regional and local entities must take several required steps in designating corridors for preservation, including establishing geographic boundaries for the corridor; completing a survey of traffic and air quality impacts of the corridor; and considering the widest possible range of transportation facilities that could be located in the corridor and the environmental impacts they may cause. The state department of transportation then pursues preservation through donations, dedications, transportation impact mitigations, advance right-of-way purchase, and other means. Each land acquisition proposal must be submitted to the regional transportation planning agency for review before it can be carried out.

In Kansas, a policy within the Department of Transportation allows for the following:

- A corridor management committee to coordinate corridor management issues.
- District plans that are collaboratively created to identify corridors that will require careful management.
- Special requirements for commercial and industrial access, including design review for extensive development, traffic impact studies, and drainage reports.
- Methods for corridor preservation, and processes for carrying out corridor preservation.

It also places heavy emphasis on coordination among the DOT, MPOs, local municipalities, public utility companies, and other groups in pursuing corridor preservation. The corridor preservation program based on this policy is allowed by state legislation, and funded by the state. It encourages memoranda of understanding between cities, counties, and KDOT for pursuing corridor preservation, but does not have mechanisms to enforce the policies it supports. Corridor identification is sometimes developer-driven, but the program also works



with municipalities to identify corridors. The program does have the authority to pursue corridor preservation, including property acquisition, but the design process must be underway, with right-of-way limits established.

In 1988, Florida legislation authorized FDOT and local governments to designate transportation corridors for protection on an official map, based on which local governments were required to withhold development permits in mapped corridors for five years. This five-year period could be extended an additional five years with no commitment by the State to purchase the property in question. The statute's stated purpose was to freeze land values in anticipation of condemnation, and prevent the increased costs of land acquisition that would occur if development permits were granted. In 1990, the Florida Supreme Court ruled that these provisions were unconstitutional and a violation of due process. Since then, corridor preservation policy in Florida has changed focus, taking place mainly at the local level now. In 1995, new legislation encouraged close coordination between FDOT and local governments on corridor preservation, emphasizing local comprehensive and thoroughfare plans as the proper place for designation of corridors for preservation. This legislation authorized local governments to adopt transportation corridor management ordinances, as discussed in Section 10.4.3.1. Local governments are directed to notify FDOT before approving any rezoning, building permit, subdivision change, or other permitting activity that would negatively impact the future viability of the corridor for transportation purposes. This allows FDOT to identify problems and negotiate alternatives while implementing corridor preservation at the local level.

While these programs make significant progress toward making corridor preservation a priority, none of them represents the perfect statewide program. For instance, the California program puts the task of identifying corridors for preservation with the regional and local entities, while the task of preservation remains with the state. This can reduce the likelihood that corridors preserved are significant and consistent on a broader level, and could lead to problems with the NEPA process if the state funds acquisition that contravenes NEPA rules. The Kansas program's use of a committee to promote corridor preservation throughout the state is not as strong as it could be, lacking the ability to enforce their recommendations. In a program like this, it should also be ensured that the committee has access to the staffing, information, and funding resources it needs to fulfill its duties. The Florida program, while innovative in offering a model ordinance for local adoption, lacks state-level coordination to ensure that local governments are aware of the ordinance's availability and purpose. It could also benefit greatly from state-level efforts to encourage communication among neighboring jurisdictions regarding corridor preservation. If the establishment of a state-level corridor management program is considered, the needs and opportunities specific to the state in question should be appraised in combination with successful aspects of existing programs in order to determine the best structure for the new system.



10.4.2 Mapping

Local governments can put transportation improvements and rights-of-way in master plans and comprehensive plans at varying levels of specificity, showing centerline alignments and rights-of-way required. The validity of later corridor preservation actions, if challenged, may depend on the inclusion of the project in a comprehensive, thoroughfare, or other plan, making these plans an important step in corridor preservation. In North Carolina, thoroughfare plans produced and adopted by MPOs are the most typical of these plans. Including corridors in these types of plans makes their preservation much more likely to succeed, as it forms a basis for corridor preservation efforts following plan adoption, especially those at the local level. This type of planning also allows land uses adjacent to the facility to be adjusted accordingly in order to reduce conflicts between the right-of-way needed and the development occurring within and near it. The planning process also helps establish buy-in and lays the groundwork for cooperation with property owners in the future. This planning step is effective for both expanding existing facilities and establishing new ones.

When incorporating future transportation corridors into local plans, municipalities and regional planning entities should coordinate closely with state agencies. Local efforts at corridor preservation may be strongly challenged if they do not have clear support from the state department of transportation.

10.4.3 Police Power Regulation

Local governments can regulate development on private property by exercising police power in a variety of ways, as described in this section. These types of controls are best used for corridor preservation if they are considered early in the planning process, and are advantageous because they usually incur no capital costs. However, jurisdictions exercising police power must be very careful not to over-regulate, which can lead to liability under inverse condemnation, and may be challenged in court as a ‘taking’ requiring compensation.

10.4.3.1 Corridor Management/Preservation Ordinance

If state statutes allow it, as they do in Florida but do not in North Carolina, municipalities may adopt ordinances that establish procedures for preserving or acquiring needed right-of-way to protect transportation corridors for future improvement. A corridor preservation ordinance would generally address some or all of the following:

- Criteria to manage land uses within or adjacent to the corridor.
- Restrictions on construction within the corridor.
- Uses permitted in the corridor.
- A public notification process.



- A variance and appeal process.
- A process for intergovernmental coordination.

As with other exercises of police power, corridor preservation ordinances may be challenged in court as takings. In Florida, several counties and local municipalities have adopted such ordinances. A model ordinance for protecting corridors and rights-of-way developed by the State of Florida can be found in **Appendix G**.

10.4.3.2 Zoning and Subdivision Regulations

Corridor preservation objectives should be considered in the formulation of local zoning and subdivision regulations. Existing zoning should be tested in combination with planned transportation facilities, with attention to the transportation impacts and the advantages of various land use options. Overlay district zoning may be applied along corridors to be preserved. These districts may include provisions that address right-of-way reservation or dedication, allowances for interim uses, setbacks on the corridor in question, cluster zoning, transferable development rights, specifications for joint and cross access, driveway limitations, and driveway spacing.

Setbacks required in the zoning code may also contribute to corridor preservation. A setback is an area within a certain distance from a curb, property line, or building line within which construction is prohibited; this area may provide space for a future right-of-way to supplement and widen an existing right-of-way. Local governments may also require setbacks to be measured from the future right-of-way line. A required setback must be related to the preservation and promotion of public health, safety, and welfare, and may not be arbitrarily or capriciously applied. If a setback is used to reserve future rights-of-way and does not serve other, valid purposes for setbacks²⁴, courts may find the setback unconstitutional, viewing it as merely a way to avoid compensating the property owner. A setback may preserve land for the right-of-way, but that must be a secondary result of the setback, and compensation must be made to the property owner when the right-of-way is acquired.

Lot dimensions can also be coordinated with corridor management objectives. Deeper, wider lots along important corridors can allow space for an expanded right-of-way in the future. High minimum lot frontage requirements can help manage driveway spacing when lots access the corridor in question. Smaller frontages may be allowed when lots have alternative access options and do not require driveway cuts on the main highway.

To provide these alternative access options, joint or cross access can be encouraged, and may be required when a property later redevelops or expands. When using these access

²⁴ Valid purposes for setbacks include separation from noise of the street, promotion of safety for pedestrians, drivers, and occupants of structures along the street, improving the attractiveness of residential environments, and securing availability of light and air.



techniques, flexibility should be exercised as properties are addressed individually. Density bonuses, variances, or other benefits may be offered for properties that create joint and cross access.

During the development review process, local jurisdictions can make sure that their procedures further corridor preservation goals. The government and the developer may collaborate to find ways to avoid encroachment on planned corridors, such as making the planned right-of-way a single lot, which is left undeveloped until it is purchased prior to the roadway's construction. Traffic impact analyses may be required according to regulations established by the municipality. The process can also assess access features affecting corridors planned for improvement.

10.4.3.3 Official Maps

North Carolina's Transportation Corridor Official Map Act allows official maps to place temporary restrictions on private property rights by prohibiting the issuance of a building permit or the approval of a subdivision within the adopted alignment of future corridors. However, an application for a building permit or for subdivision plat approval may not be delayed more than three years from the date the application is submitted. This tool is available to local jurisdictions or to the state transportation agency. It may be used only for major controlled access facilities that are included in the TIP, and only once an EIS has been drafted and construction is imminent. In addition, an official map may only be adopted where pressure from development is existing or anticipated, where inaction could lead to excessive costs for future right-of-way acquisition or to the elimination of highway alternatives, and where less restrictive measures would be ineffective or inappropriate. The Zoning Board of Adjustment in the local jurisdiction may grant special variances for corridor properties if:

- The owner cannot earn a reasonable return on the land, even with the tax benefits.
- The limitations on development create practical difficulties or unnecessary hardships.

Within one year of the establishment of the official map, work must be begun on an environmental impact statement or preliminary engineering. Any undeveloped or unsubdivided land within an official map roadway corridor is taxed at 20% of the general tax rate levied on real property.

According to the North Carolina General State Statutes, the regional transportation authority or city that initiated the official map may make advance acquisition of parcels when the acquisition is determined to be in the best public interest to protect the transportation corridor, or when the official map places undue hardship on the affected property owner. The entity acquiring the property must obtain concurrence from the department of transportation, and the advance acquisition must subsequently be reimbursed by the DOT.



Like many other police power techniques, official maps may be challenged in court to determine whether the limits on development are a legitimate exercise of police power or qualify as takings. This was the case in Florida, where an aggressive official mapping program was declared unconstitutional. Under Florida's program, FDOT and local governments could file official maps designating transportation corridors for preservation, and local governments were required to withhold development permits for properties within each corridor for five years through a setback requirement. This five-year period could then be extended by another five years even without a commitment from the State to purchase the property. In the 1990 case *Joint Ventures v. Florida Department of Transportation*, reasons cited for the program's unconstitutionality included the lengthy time period of the moratorium on development, and the clear goal of suppressing land values for the purpose of reducing purchase prices several years in the future. The lack of flexibility for mitigating hardships to property owners was also noted as a problem. Several years later, Florida courts upheld Palm Beach County's right to pursue corridor management through their thoroughfare plan, which had its basis in the state-mandated comprehensive plan, met statutory objectives of planning for future growth, and provided for mitigation of hardships to property owners.

10.4.3.4 Exactions

An exaction is a contribution by a developer to the government in return for subdivision approval, a special or conditional use permit, an amendment to the zoning map, or another land use approval or permit that is necessary to the developer. Contributions that act as property exactions can be:

- In-kind contributions within the project, usually including dedication of land for streets, schools, parks, sewer lines, or fire facilities, and sometimes including construction of such facilities.
- In-kind contributions near the project, such as the construction or rehabilitation of streets that bound, cross, or pass near the site and will be strained by traffic generated by the development.
- Payment in lieu of in-kind contributions.
- Impact fees.

Special assessments are often part of exactions, and are used to pay for improvements necessary to meet existing deficiencies on the site (not those generated by the development). The funds generated by special assessments are used for sewers, transportation facilities, and other infrastructure that benefits the property owner.

For corridor preservation, exactions may be used to obtain land within the planned right-of-way or to reach an agreement in which the developer constructs some part of the planned facility on or near the property. Exactions may also be used to obtain funds that may be used for corridor preservation, but care should be taken to ensure that the use of such funds, typically collected as impact fees, is legitimate and lawful. These fees may be used for transportation improvements that not only serve an immediate transportation need but also



promote corridor preservation. However, such fees are likely to be more effective if collected in a larger fund that is dedicated to improving the roadway network community-wide, including corridor preservation. If this approach is taken, the unit of local government must make sure that the fund can be defended as mitigating the impacts created by those who contribute fees. Criteria must also be developed to determine who is required to contribute to this fund. For example, fees might be required of owners of all developments over a certain size (if the fund to be used throughout the jurisdiction), developers of properties over a certain size along a particular corridor (if the fund is to be used in that corridor), or owners of properties that generate a certain amount of traffic.

Property exactions should be used only when there is a clear and direct connection between the exaction and a substantial advancement of a legitimate government interest. Governments should be careful to ensure that the developer receives benefits equal to the value of the exaction, and that exactions do not constitute a regulatory taking of an easement.

10.4.3.5 Development Moratoria

Established through a local law or ordinance, a development moratorium suspends property owners' rights to obtain development approvals, including subdivision approvals, building permits, site plan approvals, or wetland permits. A moratorium is meant to allow a municipality time to address a pressing problem, develop and adopt a plan, or create new rules for the area in question. A moratorium may be applied to a specific geographic area, such as a planned transportation corridor, or a specific type of permit or approval. It may also allow exemptions under certain circumstances, such as hardship. Development moratoria should be considered very carefully before being used as a corridor preservation technique, and should be used only when absolutely necessary. The basis for the moratorium should be specific and legitimate, the timetable should be reasonable, and a solution to the problem and conclusion of the moratorium should be within reach. If the moratorium is challenged in court, it may be voided, and damages may even be awarded to the property owner.

10.4.4 Early Property Acquisition

The most commonly used method of preserving corridors is simply to acquire key parcels along the corridor. However, care must be taken when using early acquisition as a method for preserving rights-of-way, because NEPA requirements generally disallow state acquisition before the approval process is completed. There are some ways for states to acquire key properties within the parameters of NEPA:

- Obtaining a categorical exclusion for right-of-way activities.
- Using information developed during the planning process to demonstrate NEPA compliance for right-of-way authorizations and possibly even construction authorizations.



- Initiating full NEPA environmental document preparation during the planning process.
- Using a tiered environmental document approach.

Alternatively, local jurisdictions can acquire key properties in the right-of-way of the planned transportation improvement, which is not prohibited by NEPA rules.

Early acquisition of key parcels along the corridor usually takes place through fee simple acquisition, often by the exercise of eminent domain. After acquiring the parcels, a government banks them until construction begins. Property may be acquired for use in the actual corridor, to control the land use of property near the corridor, or for environmental mitigation, such as creating replacement wetlands. The purpose of the acquisition may determine the methods available for acquiring it; for instance, condemnation will likely require a strong justification on the grounds of safety or other legitimate goal.

Early acquisition has both strong advantages and great disadvantages. Acquisition avoids the need for government regulation of the property, fully compensates the property owner, allows for banking of land, and may allow for income on the property prior to construction, recapturing the acquisition costs.

However, acquiring property in advance requires substantial funding long before construction is to begin, and the property is eliminated from the local tax based. In addition, the liabilities associated with managing the property fall upon the transportation agency, which is responsible for maintaining the aesthetic and safety conditions of the property until construction begins. To decide whether acquisition is an appropriate choice for corridor preservation, the transportation agency must weigh these advantages and disadvantages to determine whether the savings achieved through early purchase are great enough to offset the liabilities of maintaining the property.

Several other challenges may be faced when early acquisition is attempted. When a transportation agency endeavors to acquire part of a larger property, the property owner may be hesitant to agree to early acquisition if their questions about basic project design and engineering cannot be answered. Constitutional or statutory problems may also arise during early acquisition. Some courts are hesitant to allow acquisition for public purpose or necessity unless a relatively short-term construction need is demonstrated. This attitude overlooks the important public purpose of avoiding the high cost of securing rights-of-way after land development or intensification of uses has occurred on the property in question.

The most often used approach to acquiring rights-of-way is taking advantage of federal regulations that allow federal aid or state funds to be used for protective and hardship acquisitions before the corridor's location is approved. Hardship and protective buying are usually parcel-by-parcel, and intended to be used only in extraordinary circumstances or emergency situations. The state must also have documentation that the hardship or protective buying acquisition is in the public interest. State dollars can be used for either method, but if



federal dollars are used, a public hearing must be held and a Categorical Exclusion document may be required. In the hardship or protective buying process, the state highway department may ask approval from the Federal Highway Administration to acquire a limited number of particular parcels in the proposed corridor before the environmental impact statement is processed or denied. In protective buying, land is acquired because the owner has impending plans to develop it in such a way that would preclude the future transportation use. Protective buying with state or federal funds can occur at any time during the NEPA process. However, protecting a corridor or certain parcels from being developed should not be used to influence the selection of the preferred alignment. Hardship acquisition is initiated by the property owner because of particular financial or health-related hardship, such as when a transportation project renders the particular property unsaleable, placing a hardship on the owner. Hardship acquisition must not occur until after a least environmentally damaging practicable alternative (LEDPA) has been selected as part of the NEPA process, but it can occur before the record of decision.

10.4.5 Acquisition of Lesser Interest than Fee Simple

To avoid many of the disadvantages of acquisition, such as the significant costs and the need for maintenance of the property until construction begins, a government can acquire some interest in the property that is less than fee simple interest in order to preserve the land as is. This may be accomplished through development easements or options to purchase.

10.4.5.1 Development Easements

Through a development easement, a government acquires the right to use land owned by someone else for a special purpose. An easement²⁵ can be affirmative, allowing something to happen to the land (such as allowing wires to pass over it, or water to be discharged onto it), or negative, disallowing the owner from doing something to the land that he would otherwise be allowed to do. For corridor preservation, development easements often involve the purchase of development rights to offset the restricted use of the land. In this case, a government purchases the right to further develop a property, so that the property and its management remain the responsibility of the private owner, but the current condition of the property is preserved. If the owner sells the land, the purchaser is bound to the terms and conditions of the easement.

Unlike the case with fee simple acquisition, the property owner retains most rights to the property, including maintaining the current use of the property, as long as it is not further developed. In addition, the property remains on the local tax rolls.

²⁵ Common examples include conservation easements (to conserve environmental amenities), preservation easements (to protect a historic area from disruption by development), or scenic easements (to protect the aesthetic nature of open space).



A development easement can be permanent or temporary, and the price of the easement depends on its tenure. The valuation of an easement can cause litigation, and should be carefully negotiated. Other challenges may be faced as well. If there is development pressure, development easement may cost nearly as much as the fee simple title. However, because the value of the easement is based on potential uses, not actual uses, the appraisal of the easement can be difficult and debatable. In addition, if the easement is acquired by condemnation, there may be litigation over the value of the lost development rights.

10.4.5.2 Options to Purchase

An option to purchase is a conditional contract in which a party purchases the sole right to buy a property under specified conditions within a certain time period. An option to purchase is sometimes called a right of first refusal, but the two are actually distinct concepts; an option to purchase is more useful to the government, as it establishes the terms of the purchase in advance.

To use an option to purchase in the context of corridor preservation, a government agency, upon identifying a needed property whose value is likely to increase due to development pressure, determines the property's value and enters an option to purchase contract with the property owner, giving the government the right to purchase the property at the agreed-upon price within a specified time frame. As an incentive for the property owner to agree to such a contract, the government pays the owner a consideration. The cost of the option is often a percentage of the purchase price, negotiated between the agency and the seller. The option to purchase contract must specify the essential details of the sale if the option is used. Alternatively, a proposed contract of sale may be attached to the option so that the details of the potential sale are clear. The option should include a provision precluding the owner from substantially changing the condition of the property during the term of the option.

An option to purchase avoids many of the problems of fee simple acquisition, since the property owner still owns, uses, and is liable for the property. An option can allow the government to secure an advantageous price for a property in a rising market. It also avoids any increase in value that may accompany the development and announcement of the transportation project. On the other hand, if the sale is never completed, the agency has lost the consideration it paid for the option. In a seller's market or rapidly developing area (where it is most important to preserve rights-of-way ahead of time), it can be difficult to negotiate an option to purchase with a longer time frame. Also for this reason, the cost of the option can be prohibitive.

10.4.6 Inducements for Property Owner

In some cases, the government may be able to offer or arrange inducements for a property owner to preserve a site in its current state. These agreements do not remove the value of any rights from the property owner, but also help achieve the corridor preservation goals of the



state. These inducements may include transferable development rights or public/private partnerships that encourage the property owner to preserve future rights-of-way. Like acquisition of less than fee simple interest in a property, these inducements achieve corridor preservation while avoiding many of the problems of property acquisition: they do not generate high capital costs, and they allow the property owner to continue owning, using, and maintaining the property.

10.4.6.1 Transferable Development Rights

In a transfer of development rights (sometimes called density transfer), the right to develop a property is transferred to another appropriate property. Thus, the sending property—the property whose development right has been transferred—cannot be developed, while the receiving property—the property to which the development right has been transferred—can develop at a higher density than previously allowed. This can be used to remove development rights from a site to be preserved for a future right-of-way, either because the owner is allowed to transfer the rights to another of his own properties, or because he is encouraged to sell the rights to another property owner. Thus, the property owner is compensated in a monetary or non-monetary way without capital costs to the transportation agency. This approach could also be used if the property owner donated the right-of-way, if property dedication is exacted, or if the owner agrees to maintain the property as-is, in which case the owner would be compensated for the value of the development rights.

This technique can reduce the objections to police power regulation, since the property owner receives some benefits from transferring his development rights. It can also achieve a situation in which the land is preserved as open space, the owner is compensated, and the government incurs no capital costs. However, transfer of development rights can only be used when the ordinance allows transferable development rights in the area in question, either on the basis of floor area ratio, or units per acre. The ordinance should also establish a system for setting up recipient properties for transferable development rights. In North Carolina, transferable development rights are not allowed by the general statutes.

10.4.6.2 Public/Private Partnerships

Under a public facilities ordinance or a similar system, such as a proffer system, sufficient roadway capacity to handle the traffic generated by a development must be provided before development approvals can be granted. This type of system may encourage developers to set aside the right-of-way and build the planned facility or contribute significantly to its construction. Even when this type of system is not in effect, communicating and cooperating with the property owner may be the best way to achieve corridor preservation. Some developers may be persuaded to set aside right-of-way or even build a part of the planned transportation improvement because it is in their best interest. For instance, the improvement may enhance access to the site. Accomplishing this level of cooperation requires that the property owner receives some benefit, such as the government allowing the location of the right-of-way to shift on the property to suit the developer's needs, or advancing the



construction date of the improvement. However, many developers are willing to reach agreements in these situations in order to build a good relationship with the local planning bodies.

When using these techniques, agreements with developers must be carefully written so that decisions made during the NEPA process can be accommodated as they arise.

Another technique for using public/private cooperation to achieve corridor preservation is for the government to exchange excess government land for the desired property, when such property is available and the owner of the site in the planned corridor is amenable to such an arrangement.

Public/private partnerships can also be used to regain the cost of early fee simple acquisition. In this case, the government can purchase the property and then 1) exchange the 'air rights' above the ground level for other property needed, or 2) lease back the air rights. In this process, the government would need to identify excess land for joint development, and to enter into sale or leaseback arrangements with the developer. The government agency may also need to transfer development rights, fast track permitting, or issue tax exempt financing, revenue bonds, tax increment bonds, or mortgage backed bonds.

In all of these potential agreements with property owners, government agencies should take care to deal fairly with property owners or litigation could ensue.

10.4.7 Access Management Techniques

Some of the techniques used in access management (see Chapter 9) may also be applied effectively to achieve corridor preservation along existing facilities where expansion is planned. Chief among the access management practices that may also support corridor preservation are increasing the minimum spacing between driveways, decreasing the number of driveways on a corridor, and using frontage and service roads. These practices not only contribute to the safety, capacity, and appearance of a corridor, but also help discourage development in and near the planned right-of-way. These techniques will be most effective for corridor preservation when used in combination with other access management techniques such as setbacks, joint and cross access, and lot dimensions, which are discussed in the Zoning and Subdivision Regulations section.

10.5 Funding Options

The biggest obstacle to corridor preservation is often a lack of funding at the state or local level. To avoid the significant costs of acquisition, governments may use some of the other techniques discussed in this report to reduce or eliminate capital costs of preservation. When



the most appropriate technique does require funding, there are several approaches that may be taken to obtain it.

10.5.1 Federal-aid Reimbursement

States can, under federal regulations, acquire a right-of-way with their own funds and still be eligible for future Federal-aid reimbursement under limited circumstances. To take advantage of these reimbursements, acquisitions must be performed in accordance with civil rights provisions of Title VI and provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Some local land use planning ordinances may encourage donations of rights-of-way for future transportation facilities. Under the Surface Transportation and Uniform Relocation Assistance Act of 1987, the market value may be used by state transportation agencies toward local matching share on Federal-aid projects.

When property is acquired from a local jurisdiction for corridor preservation, the cost of replacing any facilities on the acquired property may be recovered in Federal-aid funds: the Federal Highway Administration Functional Replacement Program allows Federal aid funding of the actual replacement cost (not the fair market value) of publicly-owned and -occupied facilities. This program can relieve the local jurisdiction from financial responsibilities for replacement costs of displaced public facilities, which benefits both the local government and the taxpayers.

10.5.2 State Trust Funds

Some states have transportation trust funds that collect revenues from fuel taxes, rental car surcharges, vehicle registration, and other sources, sometimes including bonds, to fund a variety of transportation endeavors. North Carolina has such a fund, the Highway Trust Fund, but corridor preservation is not an allowable use for it. Some efforts are being made to bring about changes that would make the fund more flexible or eliminate it altogether. Such funds in other states may be used for corridor preservation efforts if certain requirements are met, such as inclusion of the project in a work program within a specified timeframe.

10.5.3 State Infrastructure Banks

The ISTEA identified state infrastructure banks as a method for meeting transportation financing challenges, and selected ten states, including North Carolina, to participate in a pilot infrastructure bank program. These banks are investment funds that offer loans and other types of financial assistance to transportation projects that will meet State goals. States



with an infrastructure bank are allowed to fund them with up to 10% of their federal gas tax funds annually. The funds are bolstered as the loans are repaid with interest, so that the fund acts as a revolving fund for a variety of transportation projects. The North Carolina State Infrastructure Bank is a flexible funding tool that can be applied in different ways to a variety of project types.

10.5.4 Income from DOT-owned Land

California has used income from the rental, lease, or sale of land owned by the state Department of Transportation to fund corridor reservation efforts. As mentioned in the Value Recapture section, this method can be applied to land acquired as part of corridor preservation efforts as a way to recapture funds spent on preservation. However, it may also be extended to apply to other properties owned by the state transportation agency as a way to generate funds for future corridor preservation efforts.

10.5.5 Value Recapture

Once funding has been obtained, the government may be able to recapture the value of an acquisition through effective management in the interim. For example, excess land beyond the planned right-of-way that will be needed during construction may be acquired and leased back to the seller until the land is needed or remarketed. In this situation, the government can lease the seller 'air rights' above ground level, which can provide the government with revenue or non-monetary returns such as parking or office space in joint use facilities. However, state statutes may limit leases of government-owned properties to short timeframes, which can make this arrangement less attractive to the private sector. The availability of long-term leases on these properties is important for the joint public/private use of excess property.

10.5.6 Local Option Sales and Use Taxes

Each municipality must petition the state legislature for the right to impose local taxes on gas, rental cars, or other relevant items. The revenues from the taxes are dedicated to a particular funding need, but the need can be defined broadly. Such a tax could be proposed to address long-term transportation needs such as corridor preservation.



10.5.7 State-shared Revenue Sources

Municipalities can use state-shared revenue sources to fund corridor preservation efforts, if there are enough available. Further study is needed to determine whether the use of state-shared revenue can be considered in violation of NEPA requirements.

10.5.8 Impact Fees

Impact fees, as discussed in the Property Exactions section, are payments made by a developer to a government to recover the costs of infrastructure improvements needed to support a development. Generally, impact fees must not generate more funds than are required to construct the necessary public facility, and must be directly related to a legitimate government purpose or to the cost necessitated by the development. As part of corridor preservation, these funds can be used to purchase additional rights-of-way that are necessitated by the development, but are not located in areas controlled by the developer and therefore cannot be secured by direct property exaction. However, a more powerful way to use these fees may be to combine them in a fund for improvement of the overall road network, so that corridor preservation may be pursued as one part of ensuring an efficient roadway network. This approach should be carefully structured, though. The long-term benefits an effective roadway network has for property owners should be equal to the impact fees exacted, and criteria for determining who pays such fees should be clear-cut and valid.

Using impact fees for transportation improvements can be difficult, because it is sometimes challenging to measure the use of transportation facilities as a result of the development, and because much of the need for highways is generated beyond the boundaries of the jurisdiction that is setting the fees.

10.5.9 Public/Private Partnerships

Partnerships between the transportation agency and the private sector may help reach corridor preservation goals by reducing the government's capital or time investment in the project, while also benefiting the private sector participant. In some cases, a private sector entity may fund a facility and operate it for a period of time to recapture costs before transferring ownership to the state for long-term maintenance and operation. Some states, such as Florida, allow the formation of transportation corporations. These corporations may work with landowners, local and state governmental agencies, and elected officials to promote and develop transportation projects, including corridor preservation efforts. Their efforts may include acquiring, holding, investing, and administering property and transferring the title of the property to the department of transportation for development of projects. The corporations can also receive land and cash contributions for right-of-way protection.



10.5.10 Special Assessment Districts

Special assessment districts are areas in which a tax is levied on property owners who will benefit from specific improvements, which are then funded by the tax revenues. Property owners may not pay more than they will receive in special benefits. The taxation can be consistent across the district or vary based on the benefit received from the improvement. The tax might also vary based on property owners' activities, such as dedicating rights-of-way. If using special assessment district taxing, governments must be careful not to make zoning changes that would reduce the benefit to property owners from the improvement.

10.5.11 Conventional Financing

In the future, federal legislation could allow a state department of transportation to acquire property using any conventional financing vehicle in common use in the real estate industry. This would allow the state to negotiate the terms of the purchase and enter into a contract with the seller, then later, when the project is funded for construction, pay the private lender in full.

10.6 Conclusions

Corridor preservation is crucial to ensuring that important roadway projects are able to follow the preferred alignment with minimum capital, environmental, and social costs. Preservation will not be necessary or appropriate for every section of a corridor, and should be applied judiciously and creatively to achieve right-of-way protection goals in a strategic way. In order to work toward corridor preservation in North Carolina, it is recommended that the North Carolina Department of Transportation consider the following steps.

- Develop and distribute a model corridor preservation ordinance for adoption by municipalities and counties. The model ordinance provided to local governments in Florida may be used as a starting point, with elements removed or added to create a document that is appropriate for use in North Carolina.
- Assemble a detailed inventory of corridor preservation activities in North Carolina. Note which tools are in use, where they are in use, which entities are involved, and what level of success is being reached.
- Identify North Carolina state agencies, organizations, and departments that can play a role in successful corridor preservation. Study other states' agencies, organizations, and departments that are focused on land use issues in order to determine whether corridor preservation in North Carolina could benefit from the establishment of similar entities or the expansion of the duties of agencies and organizations already present in North Carolina to include corridor preservation activities.



- Coordinate with units of local government to promote corridor preservation.
 - Implement an educational program to inform municipalities and counties of the importance of corridor preservation, encourage them to pursue it, and identify the tools they can begin using right away to protect important corridors.
 - Identify NCDOT as a resource for corridor preservation information and materials such as the model corridor preservation ordinance.
 - Facilitate coordination of corridor preservation efforts between units of local government that neighbor one another or lie along the same corridor.
- Undertake advocacy of corridor preservation and the tools necessary to carry it out, including lobbying for legislation to allow corridor protection tools that are deemed necessary but are not currently allowed in North Carolina.
- Study the state-level corridor preservation programs of other states at greater depth and compare them to the needs, issues, and priorities present in North Carolina. Based on this research, develop a program to pursue corridor preservation statewide, either by expanding the Strategic Highway Corridors program or establishing a new system. This state-level program should act proactively and have the resources, staffing, and authority necessary to be effective. Upon creation, the program should assume responsibility for the activities outlined in the previous recommendations as well as pursue those corridor preservation efforts that can be made at the state level.

10.7 Sources

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