

Planning the Corridor Cities Transitway in Montgomery County Maryland

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Introduction

Many transit projects involve an area that is mostly developed or has been fully developed for some time. Even though they still present relatively common challenges, planning for a transit corridor in an area that is still developing and/or projected for an increase in population and employment density, can present unique challenges. These challenges are particularly apparent with the Corridor Cities Transitway (CCT).

The CCT is a proposed 9-mile transit corridor in Montgomery County Maryland. It extends from the Washington, D.C. Metro Rail’s Shady Grove Metro Station in Rockville, MD, north to Metropolitan Grove in Gaithersburg, MD. The CCT serves a number of planned and existing communities and employment centers. The project is currently being studied by the Maryland Transit Administration (MTA).

This paper describes some of the challenges faced with the planning of the CCT in Montgomery County Maryland. The CCT is one of three transit corridors being studied by the state of Maryland. Other projects include the Purple Line between Montgomery and Prince George’s Counties and the Red Line in Baltimore, MD. Unlike its counterparts that are proposed in areas that are largely mature and developed, the Corridor Cities Transitway is proposed in an area that contains a number of greenfields that are slated for future development.

The paper will describe the project and how it has evolved over the years. Additionally, the paper will discuss a few of unique the challenges of planning for a transitway in an area that is still growing in population and employment. One challenge is the interaction with the King Farm Community in the City of Rockville and its lack of preference for the planned alignment which existed in local plans prior to the development of the site. The second example involves the Crown Farm development, and Johns Hopkins University’s proposed

Belward Campus in Gaithersburg, MD. Both locations have been designated as historic sites protected under Section 4(f) of the US Department of Transportation Act of 1966. Although both sites were purchased by developers with the right to develop the site, the CCT would be unable to traverse both sites (as planned) without absorbing what would be considered adverse impacts to a historic resource unless the land is altered by the landowner.

Background

The planned Corridor Cities Transitway (CCT) roughly parallels the I-270 Corridor which connects the northwest suburbs of Washington, D.C. with the Capitol Beltway. Also referred to as the “Technology Corridor”, this area is home to a number of technology firms, laboratories, hospitals and research centers. The corridor is a rapidly growing part of Maryland with increasing automobile congestion.

Following the most recent widening of I-270, Montgomery County recognized that it could not build its way out of auto congestion, not only on the interstate highway, but its local roadways as well. In an attempt to alleviate traffic and take pressure off of the existing roadway network, the CCT was conceived as a way to provide an alternative form of transportation for commuters, especially from areas north of Rockville with no alternative transportation modes with the exception of service provided by “RideOn”, Montgomery County’s local bus service.

The Corridor Cities Transitway CCT began as a vision of Montgomery County after a study from the Washington Metropolitan Area Transit Authority (WMATA) concluded that the extension of Metro Rail service from Shady Grove to Germantown, MD would not be feasible. The County envisioned a premium transit route that would extend from WMATA’s Shady Grove Metro Rail station and serve the cities of Rockville,

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Gaithersburg, Germantown and Clarksburg with a possible future extension into Frederick County, MD. Earlier studies of the CCT lead to the identification of a future transitway alignment. Montgomery County reserved right-of-way (ROW) for the CCT based on the identified alignment and incorporating it into its master plan. The county accomplished this by making the set-asides part of land-use agreements, coordination with developers and requiring developers to donate land to the future use of a transitway where appropriate. Where it was possible, the county required that a width of 50 feet be made available for the future CCT.

When the State of Maryland began looking at making improvements to I-270 from Shady Grove to US-15 in Frederick, MD, it recognized the possibility that highway improvements alone may not address the congestion challenges faced with I-270. The state decided that a joint project between the State Highway Administration (SHA) and the Maryland Transit Administration (MTA) would be appropriate. The State of Maryland then adopted the CCT into its Constrained Long Range Plan along with the I-270 improvements. The project became known as the *I-270/US15 Multimodal Corridor Study*. As a result of this coordinated effort, all environmental documents required under the National Environmental Policy Act (NEPA) were done jointly requiring coordination with both the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). The CCT would provide the transit component while I-270 provided the highway component. Figure 1 shows the project study area of the I-270 improvements and the CCT.

A Draft Environmental Impact Statement was published in 2002 based on the alignment that was established. This was also done in conjunction with the proposed I-270 improvements. In 2007, another DEIS was published as an update to the 2002 document for both projects. Additional improvements proposed for I-270 required that the two projects conduct an *Alternatives Analysis/Environmental Assessment (AA/EA)* in 2009.

Figure 2 depicts the originally proposed CCT alignment between the 2002 DEIS and the 2009 AA/EA.

Prior to the publication of the 2009 document, Montgomery County updated their *Great Seneca Science Corridor Masterplan* which involved major changes in the City of Gaithersburg. The County also requested that MTA evaluate the feasibility of changing a portion of the original alignment to address the increased densities in population and employment as a result of the plan. Three

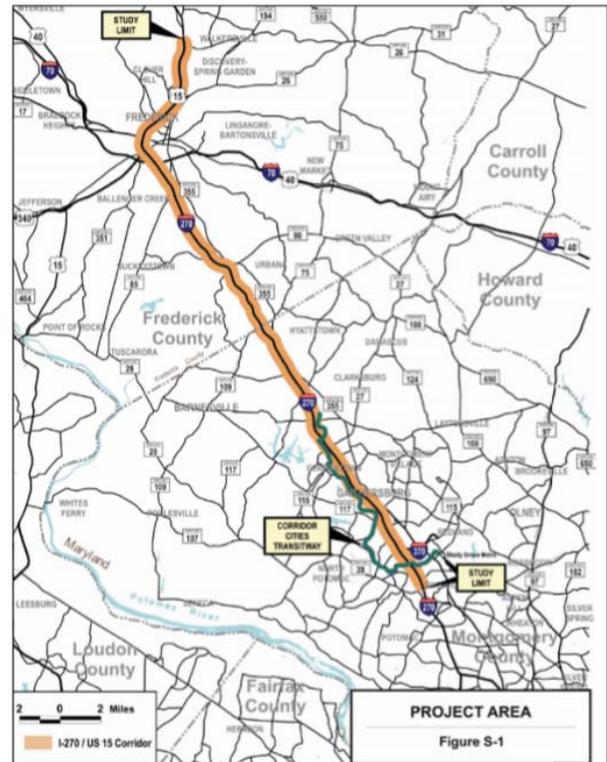


Figure 1: I-270/US15 Multimodal Corridor Study Project Area

new alignments were proposed, all within the City of Gaithersburg. The first alignment was proposed to more effectively serve the proposed Crown Farm development. Crown Farm is one of a number of planned, mixed use, Transit-Oriented Developments along the CCT corridor. The second proposed alignment change would serve the re-development of the Life Sciences Center and expanded Johns Hopkins research campus at Belward Farm. The third proposed change would allow the CCT to serve the Kentlands Commercial District for which the City of Gaithersburg has expressed interest in re-developing. The MTA agreed to conduct a feasibility study while finalizing the 2009 AA/EA.

A feasibility report; *Corridor Cities Transitway: Analysis of Alignment Alternatives Serving Crown Farm, Life Sciences Center and Kentlands*, published in 2009 showed that the ridership as a result of incorporating these proposed alignment changes increased. This warranted serious consideration of the newly proposed alignment. In order to consider these alignments, FTA required that a Supplemental Environmental Assessment be conducted in order to bring the level of study of the new alignments up to the same detail as the original alignment. The results of the analysis were reported in the 2010 *Corridor Cities Transitway Supplemental Environmental Assessment*

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(SEA) in November of 2010. Figure 3 depicts the proposed new alignments along a portion of the full CCT alignment. The blue line represents the original alignment shown in the 2009 AA/EA. The Green, Red and Yellow lines depict alignment changes that were proposed by Montgomery County.

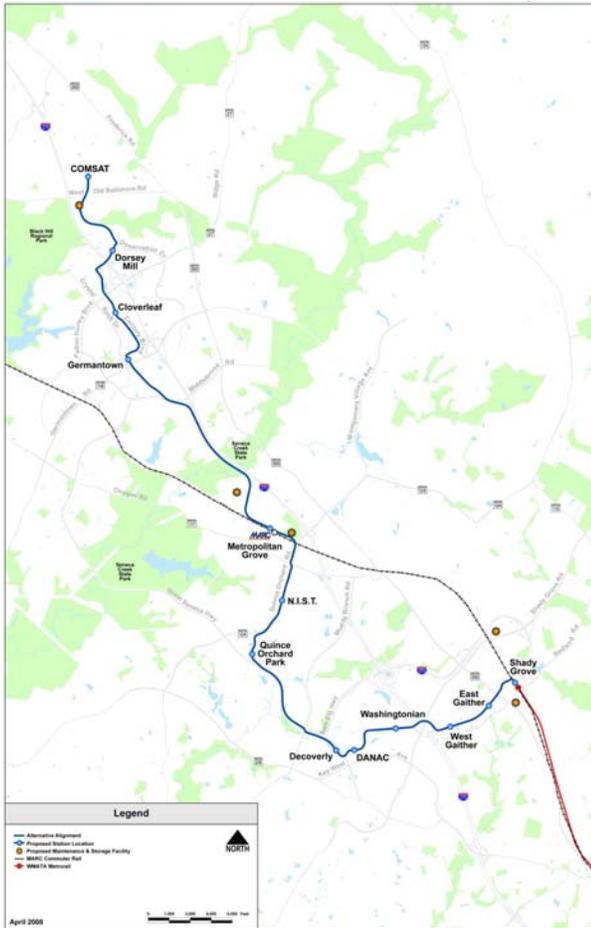


Figure 2: Original 2009 Alignment

Following the Supplemental Environmental Assessment, and the decision by the State of Maryland to postpone further study of the I-270 improvements, the SHA and MTA began work on an Independent Utility Paper (IUP). The objective of the IUP was to demonstrate that the CCT could still function without the enhancements to I-270. Once the IUP was complete, the MTA could then move towards making a recommendation on a Locally Preferred Alternative (LPA).

By May of 2012, the Governor of Maryland announced the CCT as a two-phased project, with BRT as the preferred mode of transportation for the LPA. The decision to make the project multi-phased was due to

uncertainty with regard to growth and development north of Metropolitan Grove in Germantown and Clarksburg. It was decided that the initial phase terminate at Metropolitan Grove and that the second phase would be treated as a separate project. The reason for choosing BRT as the preferred mode involved relatively comparable ridership results associated with a lower cost of investment for BRT.

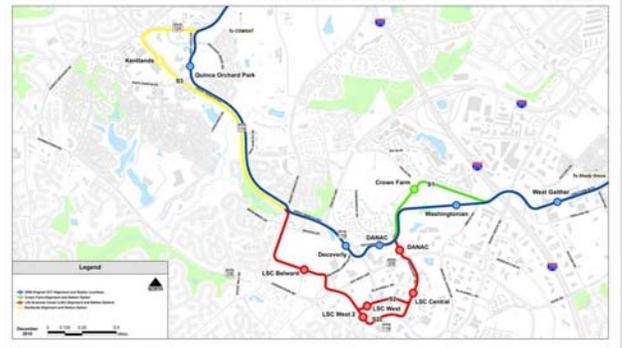


Figure 3: Proposed Alternative Alignments in Gaithersburg, MD

The intention to phase the project was to defer construction of the CCT in the northern portion of the corridor until development in Germantown matured further. The LPA incorporated all of the proposed alignment changes that were analyzed in the Supplemental Environmental Assessment.

Figure 4 displays the Corridor Cities Transitway project as it is currently proposed. As the project advances, all environmental documentation and project funding will be used towards the first phase of the CCT as defined by the locally preferred alternative.



Figure 4: Current Corridor Cities Transitway Project

King Farm

The CCT consists of many existing and planned communities along the proposed alignment. Many of these developments were developed with the intent to accommodate transit and incorporate it into their design plans. Among these developments is King Farm in Rockville, MD. King Farm is a mixed-use community that was planned and developed as a Transit Oriented Development (TOD) project.

The community mostly consists of residential land uses. This includes apartments, condominiums, condos, townhomes and single-family homes. The developer of King Farm entered an agreement with the City of Rockville which required that the developer provide for a 50ft-wide median along King Farm Boulevard. King Farm Boulevard is the main roadway through the community and leads directly toward the Shady Grove Metro Rail station. The purpose of the median was to provide space for the future CCT. This would also eliminate the possibility of future adverse impacts to homes and businesses immediately adjacent to the proposed alignment.

Montgomery County currently has a Masterplan Disclosure law that requires buyers be made aware of the local master plan and future land uses in and around the property to be purchased and their right to review it prior to purchasing the property. This law applies to the CCT as well. This was typically presented as a Montgomery County Jurisdictional Addendum to Sales Contract that buyers would have to sign, indicating that they were notified of the existence of a master plan and its proposed landuses around the area prior to purchasing the home.

From the time that the construction of King Farm was completed, the homeowners association had invested in landscaping the median with plantings and small trees. Additionally, many homes were oriented towards King Farm Blvd including units at street level.

A public hearing was held on December 15, 2010 to receive comments on the Supplemental Environmental Assessment (SEA) that was conducted on new alignments proposed by Montgomery County. During this hearing, a large contingent from the King Farm community attended the hearing and provided public comment in opposition to the CCT alignment along King Farm Blvd. It is important to note that the alignment along King Farm Blvd was not the main focus of this hearing nor was it within the study limits that initiated the SEA. The turnout was in reaction to the public outreach effort that had been conducted

much earlier during the planning process. Many residents and stakeholders expressed their concerns about the planned alignment and many had stated that they were not aware of the alignment plans.

The MTA received comments in the form of petitions, form letters and individual letters. Many of the letters expressed support for transit improvements in Montgomery County but requested that the proposed alignment be shifted to another area. Most comments recommended that the CCT be re-routed along Shady Grove Rd or I-370. The primary concern expressed through the campaign was the way in which the median of King Farm Blvd would be altered to accommodate transit. MTA responded to the community by expressing its desire to work with them throughout the planning process and each person who signed a petition or wrote a letter was directly responded to, following the public comment period. The MTA began meeting with the community to discuss its concerns as they pertained to the CCT's route along King Farm Blvd. The MTA's initial response was a statement of the facts which included the CCT being part of Montgomery County's Masterplan prior to the construction of King Farm and that residents should have been notified when purchasing the property that King Farm Boulevard was to accommodate a future transit line.



Figure 5: King Farm Boulevard Median (Reed, 2013)

The community's response to the facts presented was a genuine question of whether or not the MTA had considered any other alternatives to King Farm Boulevard. The honest answer to that questions was "no". There was no reason to consider alternative alignments in this area as the right-of-way had already been established when the site was still a farm slated for re-development. It was also the most direct route to Shady Grove.

In an effort to work with the community, the MTA conducted a feasibility study on several alternative alignments that would avoid the use of King Farm Blvd

entirely. Many of these alternatives considered the use of parallel roadways but were quickly dismissed due to the adverse impacts to adjacent buildings and facilities. The alternatives were narrowed down to three. This included remaining with the currently planned alignment, routing the CCT along Shady Grove Road to the north of King Farm Blvd, and running down the median of I-370. This was also in direct response to the community's request for the consideration of alternative alignments that avoided King Farm. The community also asserted that their proposed alignment options would actually be faster and more direct than what was proposed by the MTA.

Following the feasibility study, MTA hosted a community meeting for the King Farm residents to discuss the results of the analysis. The analysis concluded that both the options along Shady Grove Rd and I-370 would not be feasible given the physical constraints, increased travel times and additional costs associated with acquiring ROW. The community was displeased with the results of the study and expressed this at the meeting.

The MTA began developing concepts for King Farm Blvd that it looked to share with the community in hopes of providing visuals. Many residents had the impression that a heavy rail transit service would completely replace the median. One of the primary concerns was that the proposed transitway would completely divide the community in half by closing off all of the median crossings along King Farm Blvd. The other concern was the closing of the median crossings along the roadway. Recognizing this concern, MTA has taken this concern into consideration and has made a genuine effort to keep as many of the median crossings open as possible so long as safety would not be compromised with respect to pedestrian and vehicular traffic.

A number of residents' concerns were addressed when project staff members explained to citizens that the anticipated mode of transit would be Light Rail (LRT) or Bus Rapid Transit (BRT). The community was educated on the benefits of the two modes and the flexibility both modes offered with respect to their environment. This understanding helped to ease some concerns but citizens were still concerned about noise additional noise and service frequency of the transit vehicles.

The MTA continues to work with the King Farm community by providing updates to residents as they become available, looking for outreach events in the area to educate residents and local business owners about the project and responding to requests for community meetings as they arise.

Crow Farm, Belward Farm and the Section 4(f) Challenge

The Corridor Cities Transitway has had two major challenges during the planning process which involved historic properties. These properties include Crown Farm and Belward Farm. Both properties were lands which were sold to developers but designated as historic properties protected under Section 4(f) of the US Department of Transportation Act of 1966. The implication for the CCT is that the ground of the historically designated properties could not be disturbed by the CCT unless the developer began altering the nature of the site. Furthermore, for planning purposes, the MTA's assessment could not assume that the property boundary would be re-drawn and the land would be developed by the time the CCT was under construction unless the land had already been excavated. The MTA would not be able to negotiate the re-drawn boundary until after the land's initial groundbreaking. The re-drawn boundary would eliminate the Project's adverse impacts to historic properties, provided that there were no adverse impacts to the historic buildings on the site. Both properties contained historic buildings resulting in the entire parcels being currently designated as Section 4(f) resources.

Crown Farm

Crown Farm is a development currently under construction. It was originally annexed by the City of Gaithersburg in 2006 and sold to a developer. Part of the agreement involved making accommodations for the planned CCT, much like King Farm. Plans for the site also involved mixed use development with residential and commercial land use. Additionally, the site would include a school. Planning for the CCT had to follow the progress of the development of Crown Farm and have contingency plans in the event the site was not developed by the time the project was ready for construction.



Figure 6: Crown Farm

During earlier stages of the planning process, the land had been undisturbed. There were a number of delays with regard to the development of the site. With no progress made on the sites development, it was required that any environmental analysis of the CCT in which an alignment traversed the site, would have to consider this as an adverse impact to a Section 4(f) resource. Furthermore, the Crown Farm area was made up of three separate parcels. The center parcel contained the historic structure and Maryland Historic Trust (MHT) designated the entire parcel as historically significant. The center parcel also happened to be the parcel that was traversed by the proposed alignment.

In the fall of 2011, the development site encompassing the three parcels had begun. The center parcel was the only parcel affected by the proposed alignment; however, construction had started on the parcel to the west. There were some concerns about the timing of construction and whether or not, development would progress to the parcel in question. By the early part of 2012, the developer began grading the land to construct the roadway network.

The site is currently under development and is now eligible for having its historic boundary re-drawn. The benefit to the project is that it reduces the CCT's overall adverse impacts to historic properties in time for the Final Environmental Impact Statement. The MTA is now coordinating with the developer to ensure that the site will accommodate the CCT as it progresses along.

Belward Farm

Belward Farm presents similar yet more complex challenges for the planning of the CCT. Belward Farm is owned by Johns Hopkins University and was purchased under an agreement that it be used for institutional purposes. This agreement was a condition of the transaction between Johns Hopkins and the Farm's previous owner. Johns Hopkins University's vision for the site is that it would be an expansion of the Life Sciences Center. The future development is currently referred to as the Belward Campus. Subject to the same Section 4(f) law as Crown Farm, it also presented another unique challenge.



Figure 7: Belward Farm

The additional challenge presented by the proposed Belward Campus involved the land use controls that Montgomery County already has in place. These landuse controls require that the Corridor Cities Transitway be at certain stages of development in order for additional densities to be granted to the developer. The site had already been approved for development densities however Johns Hopkins University requested additional densities as part of the update to the Great Seneca Science Corridor Master Plan. The updated Master Plan provided for the additional densities but was contingent upon the status of the CCT.

This provision created a “chicken-and-egg” scenario. The Belward Campus would have to be under construction in order for the historic boundary to be re-drawn, eliminating the adverse impact to a historic property. On the other hand, Johns Hopkins University has less incentive to begin construction unless they are able to develop based on the higher densities they are seeking. The ideal scenario would have the CCT traverse the site as proposed in the 2010 *Corridor Cities Transitway Supplemental Environmental Assessment*. This alignment would provide for a station at the center of the development creating what would be considered a model Transit-Oriented Development site pattern.

As an added layer of complexity, a lawsuit regarding the property has stalled progress on the site's development. The family of the deceased, former owner of Belward Farm has filed a lawsuit against Johns Hopkins University claiming that they are failing to honor the agreement of the deed which required that the land be used for institutional purposes. The litigation and potential deferral of development of the site forces the project to consider alternatives to the preferred alignment through the site should construction of the CCT precede the development of the Belward Campus.

The CCT continues to advance with the planning process keeping in mind that alternative alignments may have to be considered if this situation is not resolved. These alignments have been referred to as 4(f) alignments and seek to avoid the protected parcel. These alignments were presented in the 2010 Supplemental Environmental Assessment. In the event that the site is not able to be developed or a resolution is not reached when the project is ready to begin construction, the alternative alignments would have to be considered and could drastically alter the shape of locally preferred alternative.

Figure 8 displays the alignment alternatives that were evaluated in order to avoid adverse impacts to both properties should construction of the CCT precede development of the sites. The red alignments attempt to avoid the Belward Farm site while the green alignments attempt to avoid the Crown Farm site.

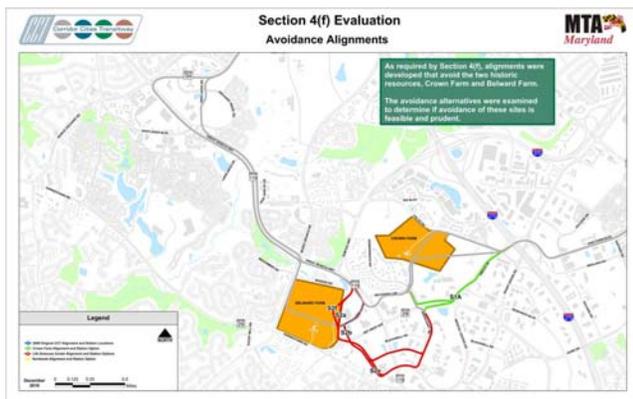


Figure 8: Section 4(f) Alternative Alignments for Belward Farm and King Farm

Summary and Lessons Learned

The Corridor Cities Transitway environment is an area that has steadily been evolving from a rural area, to suburbs, to an urbanizing area. This evolution has created unique challenges for the project in a number of ways. The challenge of King Farm demonstrated how constant interaction with the communities over the duration of the project is very important. Despite the fact that the ROW had already been set aside for the project, it did not preclude the challenges that were faced when residents expressed their opposition the project.

There also appeared to be a communication gap during the study's multi-decade history. In recent years, part of the communication gap may have occurred in the way that the multi-modal effort with I-270 was marketed.

When looking at the name of the multi-modal project; "I-270/US15 Multi-Modal Corridor Study", one can notice how the word "transit" is not a part of the title. This could be an example of technical jargon being used in the joint project's title. "Multimodal" can mean one thing to transportation professionals, but may not resonate the same way to other residents and stakeholders who may not think transportation first. The average person could assume that "multimodal" refers to cars, buses or trucks and their interpretations would not be inaccurate. It is quite possible that when outreach was conducted, the "I-270" portion of the title led people to believe that the limits of the multimodal study were relegated to the immediate area of the highway. Personal interaction with residents in the community and throughout the study corridor had expressed some level of confusion, thinking the study only pertained to the I-270 highway itself and not realizing that a transit component existed.

Another lesson learned from the experience with King Farm is that no proposed alignment can be considered "guaranteed" without the consideration of additional alternatives; regardless of the validity of the circumstances. Even when the ROW for the alignment has been accommodated for decades, the project should still have other options prepared (although not as detailed). These additional options will provide tangible support as to why other options were no longer being considered in addition to explaining all of the reasons why the planned alignment functions best. MTA was able to reference the earlier study by WMATA with regard to the extension of the existing Metro Rail from Shady Grove in Rockville, MD to Germantown, MD in response to why that option was not being studied or considered. The MTA's feasibility study of the King Farm avoidance alignments was a response to community's concerns. The citizens of King Farm had raised a very valid point by asking if MTA had considered any other routing of the CCT as an alternative to the King Farm Blvd alignment.

One way to pre-emptively address this potential situation with a project in the future is to keep an alternate alignment on hand in order to have something to speak to. In the early stages of planning, potentially sensitive areas could be identified and this can be a basis on where to develop alignment alternatives. The degree to which they are analyzed can vary from one project to another.

When identifying potentially sensitive areas, it may be prudent to identify all areas that have residential landuses in close proximity to a proposed transit route. This includes Transit Oriented Development areas. The experience with King Farm shows that just because a development is considered TOD, doesn't mean that

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planning a project through the area will go smoothly with public support.

One way to avoid this potential challenge for similar projects is to coordinate closely with the developer prior to the construction of residential units. It could be helpful to track whether or not residents are aware of the future project and conduct outreach as early as possible. An appropriate course of action in which the information could be disseminated is through coordination with the developer. Both the agency and developer should develop language that they are both comfortable with prior to distributing the information to potential, future and existing residents.

Belward Farm presented a broader lesson learned. The landuse policies implemented by Montgomery County and local jurisdictions were developed to be transit supportive. Additional land use densities would be granted only if the CCT was developed to a certain point. This is an example of good practice with unintended consequences. Although the landuse policies are clearly oriented towards transit, the imposed limitations also present additional hurdles for the development of transit in the area.

Landuse density assumptions are provided in the travel forecasting model. There is however; higher risk when forecasting for a land area that is currently undeveloped such as Belward Farm. The ridership forecasting results influenced the decision to incorporate the alignments for the Corridor Cities *Transitway Supplemental Environmental Assessment* which shaped the LPA. This also informs a decision whether to commit capital funds to a transit corridor route across what is currently an abandoned farm.

Should the development of the proposed Belward Campus stall indefinitely as a result of litigation or other reasons, the MTA could either resort to studying and constructing the 4(f) alignments, the original alignment in this vicinity or risk building additional miles of transitway (with respect to the original CCT alignment), without any of the proposed development to support the shift in the alignment. In the case of Belward Farm, the MTA had already studied alignment alternatives through the area. These were contingency plans in the event that the Belward Campus had not broken ground prior to the construction of the CCT. Despite the fact that additional work may have to be advanced with the avoidance alignments, the MTA is much further along for having evaluated them earlier. Current NEPA laws require the development of these alternative alignments but it also

shows how the extra work required by NEPA has also given the MTA a backup plan.

As other projects are planned and developed throughout the United States, they are ultimately going to encounter their own unique challenges. The CCT has had its share of challenges and still continues to face some of them as it progresses towards entry into Project Development (under MAP-21), production of an FEIS and ultimately a record of decision.