

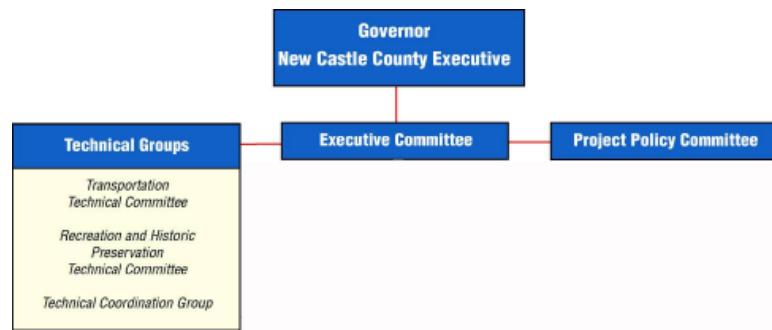


4.0 The Planning Process

4.1 Organization for Planning

The preparation of the Blue Ball Properties Master Plan was a cooperative effort among the Delaware Economic Development Office (DEDO), the Delaware Department of Transportation (DelDOT) and the Delaware Department of Natural Resources and Environmental Control (DNREC). The project organization diagram illustrates the relationships among the State, New Castle County, the Committees and citizens. This organization was designed to facilitate broad participation in the planning process by elected officials, governmental agencies, citizen groups, neighbors, area businesses and other stakeholders as described below.

For the context of the Blue Ball Master Plan, a stakeholder is defined as an individual identified as a representative for a community organization. Stakeholders were responsible for bringing materials back to their representative organizations and collecting comments for full committee consideration.





Leadership Group

The Leadership Group had the ultimate responsibility and authority to make project decisions. It was composed of Governor Thomas R. Carper and New Castle County Executive Thomas P. Gordon.

Executive Committee

The Executive Committee, chaired by Darrell J. Minott, Director of DEDO, was charged with the responsibility of completing the Master Plan in a timely manner. The Committee directed this effort with the advice and consultation of the Project Policy Committee, Technical Committees, Project Manager, and the Transportation and Recreation and Historic Preservation Committees. Full membership in the Executive Committee is listed in the Acknowledgements section of the report.

Project Policy Committee

The Project Policy Committee was comprised of state and local elected officials. It was responsible for establishing general policy direction for the Master Plan and advising the Executive Committee. Full membership in the Project Policy Committee is listed in the Acknowledgements section of the report.

Transportation Committee

The Committee, co-chaired by Eugene Abbott and Joseph Wutka of DelDOT, was responsible for transportation issues in the Plan. The full Committee membership (which included elected officials, representatives of agencies, stakeholders and citizen groups with expertise or interest in a particular aspect of the Plan) is listed in the Acknowledgements section of the report.

Recreation and Historic Preservation Technical Committee

The Committee, chaired by Mark Chura of DNREC, was responsible for planning related to conservation, development of active and passive recreational facilities and use, protection and adaptive reuse of historic structures on and adjacent to the property. The full Committee membership (which included elected officials, representatives of agencies, stakeholders and citizen groups with expertise or interest in a particular aspect of the Plan) is listed in the Acknowledgements section of the report.

Technical Coordination Group

The Coordination Group, chaired by James P. Lisa Jr. of DEDO, was responsible for coordination of the technical work of the consultant team, other



Technical Committees and the AstraZeneca Planning Committee. Members of the Committee included representatives of the three state agencies, Office of State Planning, New Castle County, AstraZeneca and the project consultants.

4.2 Summary of the Planning Process

The consultant team initiated its work in August 1999 with collection and analysis of the information necessary to understand and plan for the transportation and recreation/historic aspects of the project. The transportation and recreation/historic elements of the Plan were developed in concert, with each being closely related to and dependent upon the other. The team gave briefings and conducted workshops from late summer to January 2000 when agreement was reached on the preferred transportation and recreation and historic preservation concepts. The Technical Coordination Group held frequent working meetings throughout the process to insure coordination among the many parallel study and planning efforts underway.

The team presented data and analyses as they became available to enrich all participants' understanding of site opportunities and limits as well as to elicit the public's goals for ultimate use of the land. Subsequent to each committee's agreement on planning goals the team developed and presented transportation and recreation alternatives for public consideration and discussion. The team also participated in regularly scheduled Legislators' Town meetings, which offered public updates on the planning process as it unfolded. The chronology of public meetings is presented below.

August 16, 1999 – Transportation Committee and Recreation and Historic Preservation Committee meetings.

August 18, 1999 – Legislators' Town Hall presentation.

September 8, 1999 - Transportation Committee and Recreation and Historic Preservation Committee meetings.

September 8, 1999 - Legislators' Town Hall presentation.

September 22, 1999 - Transportation Committee and Recreation and Historic Preservation Committee meetings.

October 7, 1999 – Joint workshop with Transportation Committee and Recreation and Historic Preservation Committee.

October 13, 1999 – Open House at AstraZeneca.



November 3, 1999 - Transportation Committee and Recreation and Historic Preservation Committee meetings.

November 10, 1999 - Legislators' Town Hall presentation.

December 1, 1999 - Transportation Committee and Recreation and Historic Preservation Committee meetings.

December 8, 1999 - Transportation Committee meeting.

December 8, 1999 - Legislators' Town Hall presentation.

December 15, 1999 - Transportation Committee and Recreation and Historic Preservation Committee meetings.

December 22, 1999 - Transportation Committee meeting.

December 29, 1999 - Transportation Committee and Recreation and Historic Preservation Committee meetings.

January 5, 2000 - Transportation Committee and Recreation and Historic Preservation Committee meetings.

January 10, 2000 - Legislators' Town Hall presentation.

January 13, 2000 – Policy Committee meeting.

March 3, 2000 – Leadership announcement of Transportation and Recreation and Historic Preservation Concept Plans.

July 26, 2000 – Open House.

Agreement regarding the overall concept plan for transportation and recreation/historic elements was reached through this extensive series of meetings, workshops and open houses. Governor Carper and New Castle County Executive Tom Gordon announced final direction on the concept plan for the Blue Ball Properties on March 3, 2000.

4.3 Technical Planning Committees' Goals

Through the extensive public involvement process, the two committees concluded with a set of goals addressing transportation, recreation and historic preservation topics. Each committee developed its goals through considerable discussion and revision and refinement in the public meetings. The two goal sets were coordinated through joint committee meetings and were used to direct the technical work in preparation and evaluation of transportation and recreation alternatives as well as the selection of the preferred concept.



4.3.1 Transportation Committee Goals

- No level of service degradation.
- Minimize impact on the local street system.
- The park, transportation, and Blue Ball properties' developments are linked and need to progress together.
- Minimizing environmental impact, including cultural resources, natural resources, and aesthetics, is central to the overall project.
- Keeping the project on schedule is critical to the success of the project.

4.3.2 Recreation and Historic Preservation Committee Goals

- Preserve and design open space as signature spaces for the State of Delaware.
- Address the ongoing recreation needs of the local communities.
- Provide a means of reusing historic structures in the area.
- Maximize active recreation components.
- Design standards needed to provide the highest quality design for the area.

4.4 Alternatives and Preferred Concept



Existing Roads

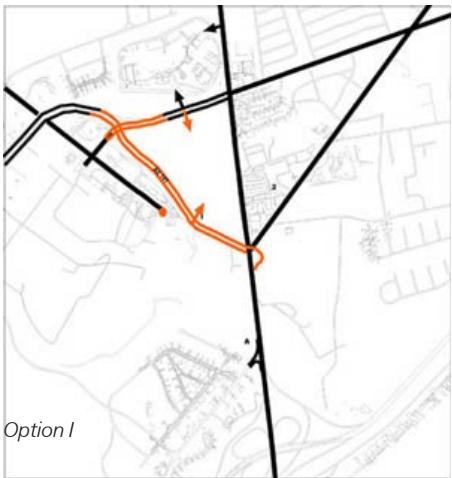
The Transportation and Recreation and Historic Preservation Committees worked intensively to select a preferred concept for the improvement of the area's transportation system and creation of a major park at the Blue Ball properties.

4.4.1 Transportation Alternatives

Study of existing and projected traffic and safety considerations, along with the many ideas offered in the public process, led the Committees to conclude that three major option sets merited consideration. That is, they had the potential to address the goals established by the Committees. These sets concerned alterations to Route 141, the Augustine Cut-Off and Foulk Road.



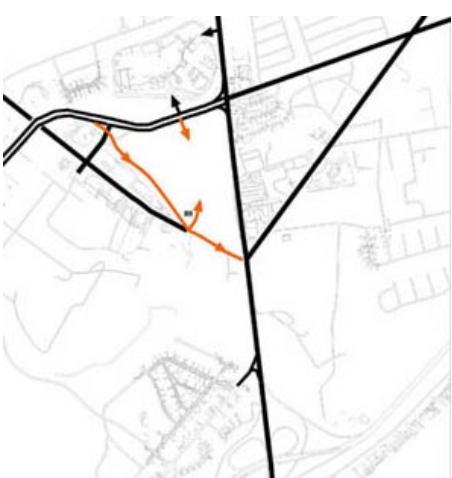
Delaware Route 141 Options



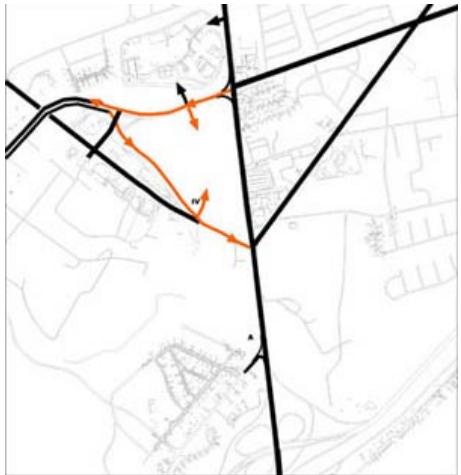
Option I: Delaware Route 141 would be relocated to the southern end of the AstraZeneca Triangle, intersecting with US Route 202 at the existing location of the Rockland Road/Foulk Road intersection. The intersection at US Route 202 would include a jughandle or underpass to facilitate left turns to Alternate Route 141 for northbound traffic on US Route 202. Existing Route 141 would be retained as a two-way roadway.



Option II: A two-way Alternate Route 141 would be built along the southern end of the AstraZeneca Triangle, intersecting with US Route 202 at the existing location of the Rockland Road/Foulk Road intersection. The intersection at US Route 202 would include a jughandle or underpass to facilitate left turns to Alternate Route 141 for northbound traffic on US Route 202. Existing Route 141 would become a one-way westbound roadway between US Route 202 and Childrens Drive (The easternmost section of Existing Route 141 could be considered for two-way circulation to the AstraZeneca site.)

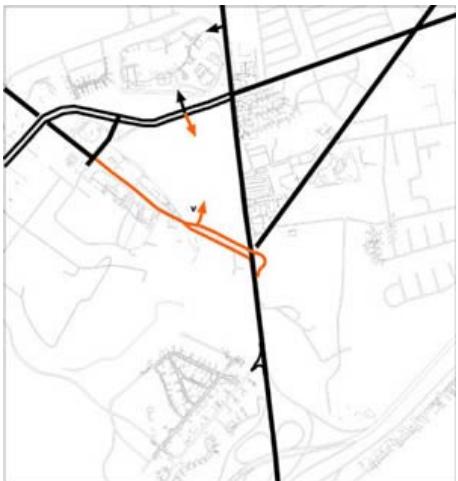


Option III: A one-way eastbound Alternate Route 141 would be built along the southern end of the AstraZeneca Triangle, intersecting with US Route 202 at the existing location of the Rockland Road/Foulk Road intersection. This option would retain Existing Route 141 as a two-way roadway. No jughandle will be needed because there would be no left hand turns from northbound US Route 202 to Alternate Route 141 possible in this option.



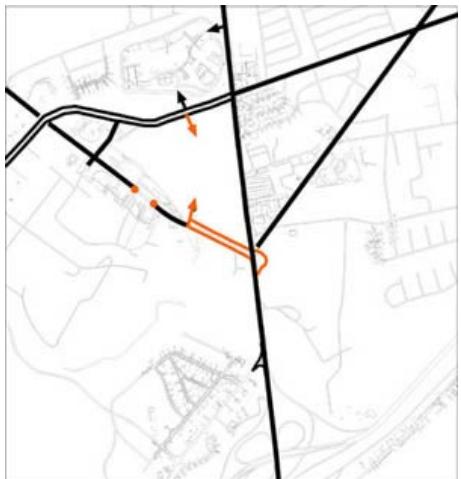
Option IV: This option for Delaware Route 141 is a one-way pair, formed by retaining Existing Route 141 as a one-way westbound roadway, and by building a new one-way eastbound Alternate Route 141 along the southern end of the AstraZeneca Triangle. No jughandle would be needed because there would be no left hand turns from northbound US Route 202 to Alternate Route 141 possible in this option. The easternmost section of Existing Route 141 could allow two-way circulation to the AstraZeneca site.

Option IV



Option V: This option would widen Rockland Road from Childrens Drive to US Route 202, intersecting US Route 202 at the existing location of the Rockland Road/Foulk Road intersection, taking advantage of the existing easement for widening set aside on the north side of Rockland Road. The intersection with US Route 202 would include a jughandle or underpass to facilitate left turns to Rockland Road for northbound traffic on Concord Pike. No change is proposed for Rockland Road west of Childrens' Drive. Existing Route 141 would be retained as a two-way roadway.

Option V



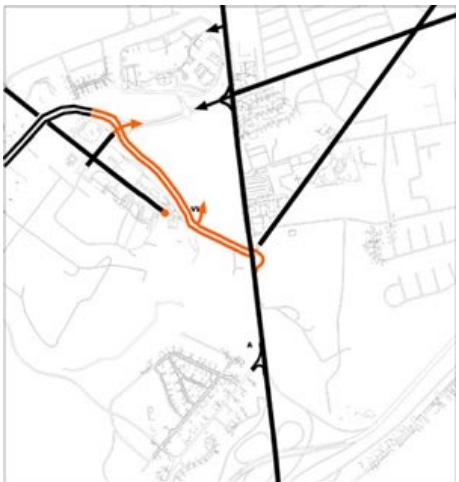
Option Va: In this modification to Option V, the section of Rockland Road between the proposed entrance to the AstraZeneca site and Childrens Drive would be severed by the introduction of two cul-de-sacs. The eastern portion of Rockland Road would provide access to AstraZeneca; the western portion of the road would provide access to the A.I. DuPont Institute, Ronald McDonald House, and other properties in this area.

Option Va



Option Vb

Option Vb: In this version of Option V, westbound traffic on Rockland Road, when it reaches Childrens' Drive, would be forced to turn right on to Childrens Drive, or left into the A. I. DuPont Institute. Eastbound traffic on Rockland Road would not be affected.



Option VI

Option VI: This option requires the construction of an Alternate Route 141 along the southern end of the AstraZeneca Triangle, intersecting with US Route 202 at the existing location of the Rockland Road/Foulk Road intersection. The intersection at US Route 202 would include a jughandle or underpass to facilitate left turns to Alternate Route 141 for northbound traffic on US Route 202. This option would close Existing Route 141 between Childrens' Drive and US Route 202 to all traffic except AstraZeneca traffic.

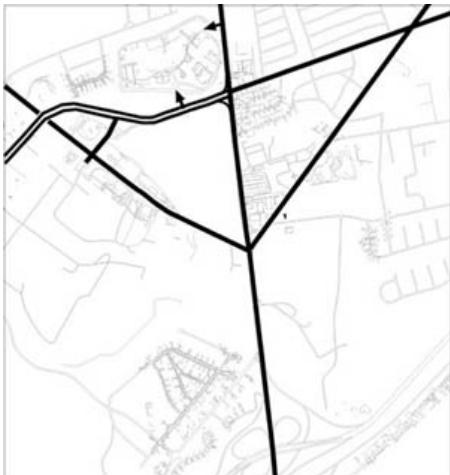


Option VII

Option VII: This option requires the construction of an Alternate Route 141 along the southern edge of the AstraZeneca Triangle, with an at-grade intersection with US Route 202 in front of the Independence Mall Shopping Center.



Augustine Cut-Off Options



Option A

Option A: Retain the existing intersection of Augustine Cut-Off with US Route 202 without any changes.



Option AA

Option AA: This modification to Option A would retain the existing intersection of Augustine Cut-Off with US Route 202, but not permit left turns to or from US Route 202. Existing left-turn traffic would be diverted to alternate local roadways.



Option B

Option B: Build a bridge over US Route 202 south of the reservoir and extend Augustine Cut-Off to a new intersection with Foulk and Weldin Roads.



Option C

Option C: Build an underpass below US Route 202 north of the reservoir site. This road would then run easterly along the southern boundary of the Weldin Road tract before swinging north to connect with a relocated Weldin Road and Foulk Road. This road (open at all times to public circulation) could be used to define the eastern edge of the State Park. The underpass would also accommodate a Greenway crossing of US Route 202.



Option CC

Option CC: Extend the Augustine Cut-Off parallel to US Route 202, along its west side, and intersect US Route 202 farther north. The intersection could be aligned with the entrance to the City's water treatment facility, or that entrance could be closed and the intersection moved farther north.



Option D

Option D: Extend the Augustine Cut-Off parallel to US Route 202, along its west side, locating it either to the north or the south of the barn, and then connect it to either existing Rockland Road or a new Alternate Route 141 just east of the Ronald McDonald House. Sub-option D (1) swings the road north of the barn. In this case, the barn, which is located close to US Route 202, would probably need to be relocated (if feasible) to the south. Sub-option D (2) swings the road to the south of the barn. In this option, the barn would not need to be moved, and the road could be used to separate a natural conservation area from active recreation areas in the future park.



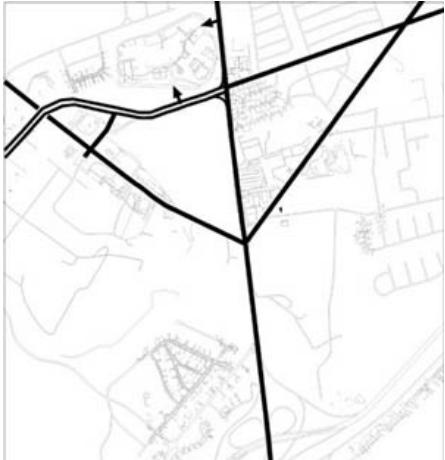
In either case, the new extension of the Augustine Cut-Off would intersect existing Rockland Road and a new Alternate Route 141 just east of the Ronald McDonald House. This intersection could also provide access to the AstraZeneca triangle.



Option E

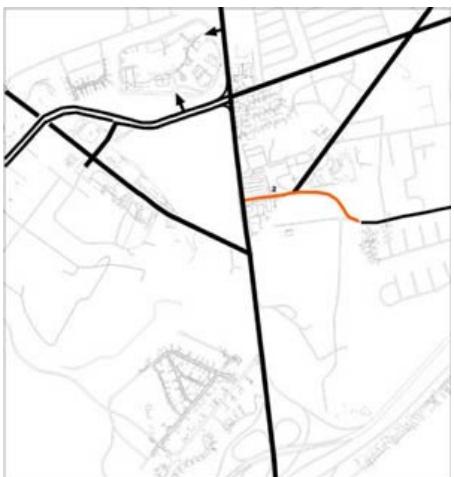
Option E: Extend the Augustine Cut-Off parallel to Concord Pike, along its west side, locating it either to the north or the south of the barn, and then connect it to US Route 202 just south of Independence Mall or at the existing signalized intersection at Independence Mall. This roadway could be extended across US Route 202, in combination with Option 2 for Foulk Road, as discussed below. In this option the extension for the Augustine Cut-Off would pass under rebuilt Rockland Road or a new Alternate Route 141. As with Option D, two sub-options exist for the location of the road in relation to the historic barn.

Foulk Road Options



Option 1

Option 1: Leave Foulk Road in its present location and function where it intersects US Route 202.



Option 2

Option 2: Relocate Foulk Road to immediately south of the Independence Mall Shopping Center.



Option 3

Option 3: Connect Foulk Road to US Route 202 with a grade-separated intersection. Southbound traffic on Foulk Road would pass under US Route 202 to the south of the Blue Ball barn before merging with US Route 202. Northbound traffic on US Route 202 would have a right turn lane directly onto Foulk Road. No left turns for traffic on US Route 202 would be permitted onto Foulk Road. Southbound traffic on Foulk Road attempting to go north on US Route 202 could be accommodated with a new one-way connection through the existing parking lot of the Brandywine Plaza office development.



Option 4

Option 4: Connect new Alternate Route 141 with Foulk Road via an underpass with US Route 202. Construct a half-cloverleaf intersection to the north of the underpass to facilitate connections between US Route 202 and Alternate Route 141/Foulk Road.



The technical coordinating committee developed 252 combinations of these 20 options. Many were dismissed without further study because, while each individual option might address the principles, the combination was not functional. The number of "surviving" options was reduced dismissing those that did not satisfy the established goals and criteria of the transportation committee (i.e., an option did not satisfy the "no degradation" criteria). By the beginning of December, 1999, the remaining options included:

- *Delaware Route 141*: Option I (build Route 141 Spur and keep Existing 141 open) and Option VI (build Route 141 Spur and close Existing 141),
- *Augustine Cut-Off*: Options AA, C, and D, in combination (build east and west side local roads and make some modification to US Route 202/Augustine Cut-Off intersection),
- *Foulk Road*: Option 1 (leave Foulk Road in its current location).

During December 1999, five Transportation Committee meetings were held to refine the remaining transportation alternatives. At the December 29, 1999 Transportation Committee meeting, committee members were surveyed on their opinions about six remaining areas of concern. Their conclusions are summarized below.

Existing Route 141

As discussed in the previous section, the two remaining options for Existing Route 141 between Childrens Drive and US Route 202 were to leave it open to general traffic, or to close it to general traffic (and allow AstraZeneca traffic only). The Transportation Committee overwhelmingly supported leaving Existing Route 141 open to general traffic.

US Route 202/Foulk Road/Route 141 Spur Interchange

Throughout the alternatives refinement process, several interchange options were discussed at the intersection of US Route 202, Foulk Road, and the Route 141 Spur. Initially, it was demonstrated that, due to the projected traffic volumes, a grade-separated interchange was required rather than an at-grade intersection. After consensus was reached on this point, the initial design options presented restricted certain traffic movements in order to improve traffic flow and reduce vehicle delays. However, the consensus of the Transportation Committee was that all moves should be provided at every intersection, to the maximum extent possible. The application of this philoso-



"Bow Tie" Option



"Diamond" Option

phy resulted in two options which were ultimately named the "Bow Tie" option, and the "Diamond" option. Both options would connect the Route 141 Spur to Foulk Road through an underpass of US Route 202. The "Bow-Tie" option eliminated a traffic signal at this location on US Route 202 through the use of loop ramps. The "Diamond" option was more compact but retained a traffic signal on US Route 202. Both options met the "no degradation" criteria.

When polled, the Transportation Committee favored the "Diamond" option, mainly due to its reduced impact upon the proposed parkland of the Alapocas and Weldin tracts.

US Route 202/Augustine Cut-Off Intersection

The east and west side local roads and an underpass of US Route 202 connecting the local roads and serving as the greenway crossing were decided upon during the alternatives development stage. The design of the US Route 202/Augustine Cut-Off intersection was studied further during the alternatives refinement stage. Two options were ultimately considered to satisfy the "no degradation" criteria and safety concerns at this intersection:

- *Fully Relocated Access.* This option would eliminate any connection between US Route 202 and Augustine Cut-Off at their current intersection. Instead, all traffic would be forced to utilize the east and/or west side local roads to access the Route 141 Spur or Foulk Road, which would then lead to US Route 202.
- *Partial Traffic Signal.* This option would retain the traffic signal at the Augustine and Rt. 202 intersection, but only allow the eastbound right-turn from Augustine Cut-Off, and the northbound left-turn from US 202 N. As these are the two lightest traffic movements at the intersection, the signal timings could be set up so that this intersection satisfies the "no degradation" criteria.

When polled, the Transportation Committee favored the "Partial Signal" option, mainly due to its reduced traffic impact to residential streets in Wilmington.

Childrens Drive

Two potentially viable options were presented to the Transportation Com-



mittee at the intersection of Existing Route 141, the Route 141 Spur, and Childrens Drive. They included:

- *Four-Leg Option.* This option would bring Existing Route 141, the Route 141 Spur, and Childrens Drive into a four-leg intersection.
- *Relocated Childrens Drive Option.* This option was similar to the "Four-Leg" option, except that the Childrens Drive leg of the intersection would be relocated somewhere to the south.

The Transportation Committee favored the "Four-Leg" option, mainly due to its improved access to the A.I. DuPont Hospital.

Rockland Road

The Transportation Committee was polled on whether Rockland Road should be tied into the local road system, or be cut off from the local road system by a cul-de-sac. The committee favored connecting Rockland Road into the local road system.

Murphy Road

To satisfy the "no degradation" criteria at the intersection of US Route 202/Existing Route 141/Murphy Road, several additional lanes are required. One additional through lane in each direction on Route 202 (for a total of four in each direction) is necessary, as is one additional turn lane on the westbound Murphy Road approach. Either a left or right-turn lane on Murphy Road would be acceptable. When polled, the majority of the committee was neutral on this question. Therefore, the decision was postponed until later in the design process. The impacts to the area will likely be the same regardless of whether a right or left-turn lane is ultimately constructed.

4.4.2 Transportation Analysis

The alternatives discussed previously were tested to determine if they satisfied the transportation goals (listed in section 4.3.1), as well as a more detailed list of transportation criteria (available on the project web site: www.blueball.net) developed by the Transportation Committee. Some of the goals could be easily evaluated (i.e., the "Diamond" option had less of an environmental impact than the "Bow-Tie" option, because of its more compact design). However, the "no degradation" and safety related criteria



required more complex analysis.

Three tools were used in the analysis of alternative options: capacity analysis, simulation analysis, and safety analysis. For both the capacity and simulation analyses, traffic projections were developed for a design year of 2010, which is consistent with the definition of the “no degradation” criteria.

The capacity analysis was conducted using the nationally accepted methods of the *1997 Highway Capacity Manual*. This analysis was conducted to determine if the proposed options satisfied the “no degradation” criteria.

The simulation analysis was conducted using the Federal Highway Administration (FHWA) sponsored software package CORSIM. This analysis was conducted to ensure the component pieces of the transportation options would operate together, as well as to develop a graphic traffic animation that would give the public a better understanding of the proposed alternatives.

The safety analysis was conducted mainly to evaluate the options at the high accident location of the intersection of US Route 202 and Augustine Cut-Off. Accident types and causes were investigated to determine which improvement options would help reduce the accident frequency at this intersection.

4.4.3 Preferred Transportation Concept



Transportation Concept

On the basis of the goals and criteria established by the Transportation Committee, the analysis described previously, and the poll results of the Transportation and Recreation and Historic Committees, a recommended concept was developed by the Transportation Technical Committee. This concept was presented to the Policy and Executive Committees, which in turn made their recommendation to the Governor and County Executive. The process culminated in a decision by the Governor and the County Executive, on March 3, 2000, which reflected the community's recommendation on all components of the Blue Ball Project. This concept includes the following:

- *Delaware Route 141.* A four-lane Route 141 Spur is to be constructed along the south side of the AstraZeneca south campus. Existing Route 141 will remain open to all traffic.
- *US Route 202/Foulk Road/Route 141 Spur Interchange.* The “Diamond” option was selected for this interchange.



- *US Route 202/Augustine Cut-Off Intersection.* The “Partial Signal” option was selected for this intersection.
- *Childrens Drive.* The “four-leg” intersection option was selected for this intersection.
- *Rockland and Weldon Roads.* Connections between the proposed local road system and Rockland and Weldon Roads will be maintained as part of the selected alternative.
- *Murphy Road.* A turn-lane will be constructed on Murphy Road, and one additional through lane in each direction will be constructed on US Route 202 at the Murphy Road/US Route 202 intersection.

Further details on the proposed transportation improvements are included in Section 5.3.

4.4.4 Recreation Alternatives

The Recreation and Historic Preservation Committee also worked intensively to develop a preferred program for the park. Alternatives were structured around the series of use and program considerations described below.

- *Active and/or passive use* – passive use, or maintenance of a natural or green environment suitable for walking and sitting, was contrasted to provision of spaces and facilities for more active uses.
- *Rock Manor Golf Course improvements* – improvements considered to better accommodate the course’s heavy use (65,000 rounds per year) included adding length to the existing configuration, altering the configuration, adding 9 holes and adding a practice and teaching facility.
- *Sports facilities* – options included the full range of facilities from grass fields to paved courts with fixed seating.
- *Regional Reservoir use* – discussion by others of regional reservoir considerations required this option be addressed in the alternatives.



- *Greenway crossing of Route 202* – three options to permit the extension of the Northern Delaware Greenway to cross Route 202 were presented. The options included extending the Greenway below, above and at grade with Route 202.
- *Historic Preservation* - in all cases, the goal of on-site renovation for adaptive reuse was included as part of the alternatives. The Blue Ball Barn, Murphy House and Bird-Husbands House were incorporated with this treatment in all alternatives. Field investigation suggested that the ruins of the Weldin Plantation might have the potential to be stabilized and incorporated into the park. This was also recommended in each alternative.

The Committee considered multiple combinations of these factors, narrowing its focus over the October through early December 1999 meetings. The Committee reached consensus at its December 15, 1999 meeting on the concept plan for the park areas. The concept recognizes the division of the park by Route 202 and devotes the west side to open parkland for passive use and the east side to active recreation uses.

The Alapocas parcel on the west is planned for passive recreation with the Northern Delaware Greenway trail extending through it. The Bird-Husbands House and Murphy House will be stabilized and adaptively reused. The Blue Ball Barn complex will be adaptively reused. An extension of the Greenway trail will enter the park from the south and connect to its north as well as the east side of the park. A naturalistic landscape character will extend to the existing woodland. A transitional landscape will link the portion of the park on the east side of Route 202.

The Weldin parcel on the east will retain the existing hedgerows to frame three grass surface multi-purpose fields. The hedgerows will also function as an organizing structure for the other park program elements: smaller multi-purpose field, children's playground and garden, dog park, picnic area and parking. The Golf Course will extend into the east side of the park with additional length for its reorganized holes. A golf practice and teaching facility will be located adjacent to the course extension. The Northern Delaware Greenway trail will cross under Route 202 and tie into the existing portion of the system extending north from the Weldin parcel.



Stormwater management facilities will be incorporated in both sides of the park in the most environmentally friendly manner feasible. They will be used, in part, on the east side as features of the reconfigured golf course. Circulation within the park is separated from the regional system, access being gained through the local road system.

4.4.5 Recreation Analysis

Using data obtained during the documentation of existing conditions, a site analysis of the Blue Ball properties was undertaken to evaluate suitability for recreational purposes. The following analyses were conducted:

Natural Environment Analysis

Consideration for the natural environment of Blue Ball properties is important for protection and enhancement of the natural components of the site. Factors considered in this evaluation were hydrology (groundwater, streams and drainage channels, wetlands) and slopes.

Landcover Analysis

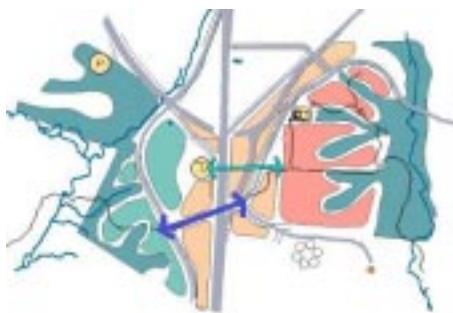
The type and condition of current landcover was considered for determination of incorporation into the recreation design. Types of landcover found on the Blue Ball properties were agriculture, woodlands, buildings and hedgerows.

Visual Analysis

A visual analysis was conducted to determine important viewsheds, visual barriers, edges, perceived spaces and visual attractions on the site.

4.4.6 Recreation Concept Development and Synthesis

Based on site analysis data, three conceptual approaches to the design of the park were developed.



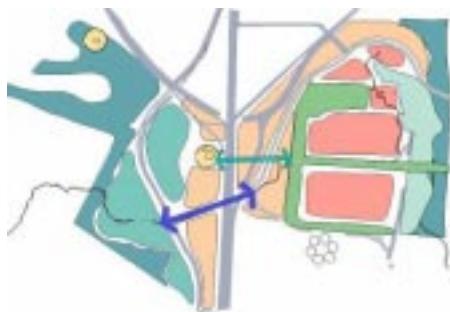
Concept 1 – Natural Systems Based Design

This concept is based on protection and enhancement to the existing natural woodlands and drainageways as a framework for recreational design. It extends the woodlands into the existing open spaces along drainage channels to create green “fingers” for low use park activity. The open areas between these “fingers” would be used for active recreation on the east side of Route 202 and passive recreation/stormwater management on the west side of Route 202.

Legend

Active Recreation	Historic Features
Conservation	Visual Link
Parkland	Physical Link
Transitional Landscape	

Concept 1



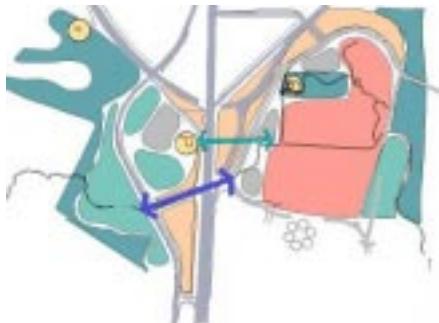
Concept 2 – Historic Land Use Based Design

This concept protects and enhances the cultural landscape as the basis for organization of park functions and forms. It conserves the existing hedgerows on the east side of Route 202 as the organizational framework for park activities. It retains the existing woodlands in their current extent.

Legend

Active Recreation	Historic Features
Conservation	Visual Link
Parkland	Physical Link
Transitional Landscape	
Hedgerow Preservation	
Selective Modifications	

Concept 2



Legend

	Active Recreation		Historic Features
	Conservation		Visual Link
	Parkland		Physical Link
	Transitional Landscape		
	Parking		

Concept 3

Concept 3 – Maximum Program

This concept retains, where possible, existing vegetation but does not save it at the expense of an ideal park program. Full integration of the park program with expansion of the golf course is a part of this concept.

These concepts were presented to the State and County on April 11, 2000 and resulted in selection of Concept 2 as a basis for the design of the recreational component of the Blue Ball properties.

This conceptual approach was evaluated against the programmatic information developed by the Recreation and Historic Preservation Technical Committee as summarized in their report entitled *Principles for Planning and Design of State Parklands within the Blue Ball Project as follows:*

- **Maximize Open Space within Project Boundaries for Both Passive and Active Recreation and Environmental Protection**

Passive Recreation

State parklands on the west side of Rt. 202 should be devoted primarily to passive recreation and habitat enhancement. A priority for State parklands on the west side of Rt. 202 is the conversion of croplands, fields and the fill area into systems of wet and dry habitats that will address both stormwater quantity and quality. The goal is to address stormwater currently feeding directly into Alapocas Run, together with future stormwater runoff from AstraZeneca, transportation and park development, in a manner that is both aesthetically pleasing and a net benefit to the environment. Development of hiking trails on state parklands should be encouraged as part of the design phase of the project. Indigenous and sustainable landscapes should be promoted. All improvements made on project lands to the west side of Rt. 202 should be done recognizing that the vista of the historic A.I. DuPont Estate, which includes the Blue Ball Dairy Complex, the A.I. DuPont Carillon and adjoining agricultural fields, is an important community asset that should be preserved to the maximum extent possible.



Active Recreation

An active recreation complex should be located on State parklands on the east side of Route 202. The proposed relocation of Weldin Road, and suggested development of other non-park roads in this area, should be designed to maximize contiguous State parkland. The active recreation complex should accommodate a complement of multiple use fields plus any associated amenities. In keeping with the natural character of the area, fields should be provided that support soccer, field hockey, and lacrosse, but should not include football. Court games such as tennis or basketball will not be included. Parking lots and adjoining pathways should have low-level lighting to ensure public safety. The lighting standards for the parking lot should be of minimal height, and all lighting should be turned off after the completion of public activities. Priority should be given to providing a complex of four (4) multiple use fields, with the possible addition of other fields if space allows. Fields will not be lighted and all should have natural surfaces. Additional amenities to the active recreation complex should include a children's playground, "dog park" area and small shelter. Restrooms, a maintenance facility and adequate parking facilities must also be included. Determination of which governmental agencies will be responsible for development, operation and maintenance of the above-mentioned complex will be addressed outside the Committee process. The Committee recommends that the design of the field complex emphasize ample landscaped areas or open space between fields and include design features that create a park atmosphere.

The active recreation complex noted above complements existing adjoining active recreation opportunities available to the public. As part of the active recreation complex on State parklands, a teaching facility/driving range for golf of approximately 15 acres should be developed. Further, a goal of achieving an approximately 6,500 yard long, or longer, course for Rock Manor Golf Course should be a priority. To achieve this goal, the current configuration of the entire course should be examined. Potential course improvement through redesign should focus on including stormwater management as an amenity to the course. The course should continue to be an affordable course. Consideration should be given to rerouting the Northern Delaware Greenway that now connects through Weldin Ridge to a new location along the edge of a redesigned golf course. The Committee believes any golf course enhancements must be tied to a conservation easement, or other legal commitment that will keep the current Rock Manor Golf Course as permanently protected



active parkland in perpetuity. The Committee recommends that the City and State work to identify acreage within the Porter Reservoir complex that is in excess of the City's needs, and to incorporate these lands within the active recreation complex.

- **Renovate Historic Resources.**

The Blue Ball Dairy Complex, the Bird Husbands House, and the Murphy House should be evaluated for adaptive reuse as support space that will benefit the public. The first priority for the above structures is to have them remain on their current sites and renovated for adaptive reuse. The historic viewsheds from these structures are important and must be factored into any road design. If final road alignments conflict with the current locations of any of these structures, the structure(s) affected will be relocated and renovated for adaptive reuse. Should the Weldin-Husband's House be identified for acquisition as part of any transportation component of this project, this structure will be evaluated for structural integrity, and should be relocated and renovated for adaptive reuse if possible. Should the Weldin-Husbands House not be acquired as part of this project, the Committee requests that State and County work with the owner, County Historic Review Board and other interested partners to protect the structure and facilitate an active reuse. Commitments made by the State relative to historic structures with regards to the Route 202 "safety project" must be honored.

- **Greenway Trail System**

The Committee recognizes that Route 202 is the gateway to Brandywine Hundred, and that the design of roads and park improvements should reflect this importance. Creation of tree-lined boulevards and/or landscaped medians should be undertaken wherever possible. As part of this project, the Northern Delaware Greenway should be constructed so as to connect between the City of Wilmington at the Brandywine River and Talley Road. The trail should cross Route 202 via an expansive and aesthetically attractive underpass separated from vehicular traffic. Bicycle and pedestrian connections to neighborhoods surrounding this project, including but not limited to the general vicinity of Alapocas Drive, Rockland Road, Children's Drive, Route 141/Murphy Road, Route 202, Weldin Road, Foulk Road, Augustine Cut-off and adjoining neighborhood roads must be integrated into the overall transportation plan.



- **Relocation/Extension of Rockland Road, Augustine Cut-off and Weldin Road**

The Committee recognizes that the transportation network for this project must work (i.e. meet the no degradation criteria), but should also be designed to maximize open space. A Committee goal is to minimize the length and impact of park and non-park roads carrying vehicular traffic through lands acquired as part of this project. Any such roads identified in the final transportation alignments should be developed under an access easement between the Departments of Transportation (DelDOT) and Natural Resources and Environmental Control (DNREC). Under this arrangement, DNREC would grant an access easement on State parklands for public roads, with the right-of-way limited to roads having two (2) ten foot travel lanes where possible, and having eleven foot travel lanes where necessary. Development of such roads must incorporate design elements that create a park environment.

- **Reservoir Expansion/Matson Run**

The Blue Ball properties were not acquired to be a solution to the water supply needs of northern New Castle County, and water storage will not come at the expense of the recreational amenities and adaptive reuse of historic structures commitments made to the community. Small-scale water storage from stormwater, designed and configured as ponds, could be accommodated if they also serve to support or enhance identified recreation, golfing, or habitat needs. The Committee has concluded that a water storage reservoir should not be located on the Blue Ball properties.

The Committee also recognizes that stormwater runoff and flooding within the Matson Run basin is a major problem, and that resolution of this issue should occur as part of this project. Mature trees along Matson Run should be protected as part of any stormwater management design.

- **Mass Transit**

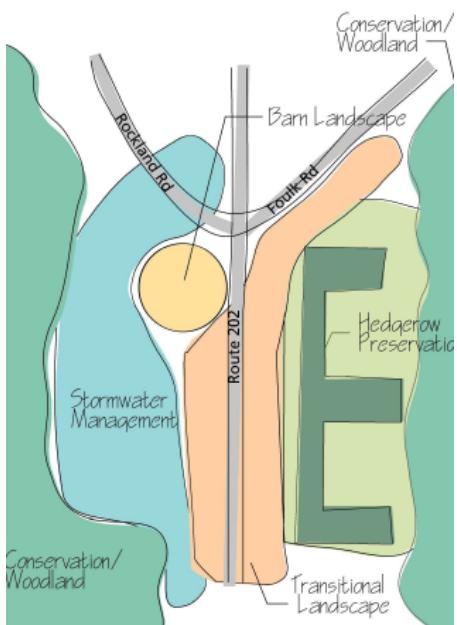
The Committee believes mass transit is important and therefore endorses the reservation of a corridor to support a mass transit system. The Committee does not, however, support park and ride lots or a transit hub with a parking lot on State parklands. Once a transit corridor has been identified, it should be landscaped or otherwise enhanced to blend into the surrounding landscape until such time as it is developed. The reserved corridor must be located so as to minimize impacts to the natural, cultural and historic resources within State parklands.



Design Synthesis

A synthesis of concept approach and programmatic principles for the park as described above led to the preparation of three refined alternative plans based on concept 2. Each alternative preserved existing hedges, increased the total yardage of the golf course and created a distinctive transitional landscape from Route 202 to both sides of the parkland. Each alternative was unique in terms of vehicular circulation and parking lot location, location of golf practice/teaching facility, golf course routing sequence and yardage, stormwater management area, and landscape characteristics. These alternative concept plans were presented to the State and County on April 20, 2000.

4.4.7 Preferred Recreation Concept



Preferred Recreation Concept

Based on comments from the State and County regarding the three alternative park concept designs on April 20, 2000, a preferred recreation concept design was developed. This plan provides the following:

- Parkland west of Route 202 reserved for stormwater management and passive recreation.
- Parkland east of Route 202 containing mostly active recreation.
- Preservation of the existing hedgerows in East Park.
- Three large and one small grass, multi-purpose play fields.
- A children's playground and garden.
- Picnic area.
- Dog exercise park with separate parking lot.
- Golf practice/teaching facility with separate parking lot.
- Expanded golf course in the south of park property increasing the total yardage of the course (to approximately 6,190 yards).
- Restroom facility.
- Park Trail System.
- Maintenance Building.
- One major parking lot in optimal, central location.