

Appendix G

Farmland Conversion Impact Rating

US 301 Project Development



*Federal Highway
Administration*



*Delaware Department
Of Transportation*



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RUMMEL, KLEPPER & KAHL, LLP

STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

CAROLANN WICKS, P.E.
SECRETARY

July 12, 2007

Mr. Paul Petrichenko, Assistant State Conservationist
Natural Resources Conservation Service
1203 College Park Drive
Suite 101
Dover, DE 19904

Subject: US 301 Project Development
From DE/MD state line to SR 1
Transmittal of Form NRCS-CPA-106 Farmland Conversion Impact Rating Form
Parts I and III

Dear Mr. Petrichenko:

As you may be aware, the Delaware Department of Transportation (DeIDOT) and the Federal Highway Administration (FHWA) have been evaluating the construction of a new US 301 between the Delaware/Maryland state line and the Chesapeake and Delaware (C&D) Canal. The purpose of this project is to improve and enhance safety, manage truck traffic, and address existing and projected traffic congestion in the US 301 corridor, while accommodating existing and planned development and minimizing environmental impacts.

Since the 1990s, many alternatives have been developed in varying levels of detail for the project. Under the current effort, four build alternatives were retained for detailed evaluation: Yellow, Purple, Brown (North and South Options), and Green (North and South Options). All of the retained alternatives would provide a four-lane, divided, fully access controlled, tolled roadway from the Delaware/ Maryland state line to SR 1, south of the Canal. The Purple and Green Alternatives include a two-lane, divided, fully access controlled Spur Road from north of Middletown to the base of the Summit Bridge (existing US 301/SR 896). The Alternatives Retained for Detailed Evaluation are described and analyzed in the Draft Environmental Impact Statement (DEIS) that was available for public comment between November 8, 2006 and February 3, 2007. The DEIS recommended the Green Alternative North Option as preferred, and a Combined Location-Design Public Hearing was held on January 8 and 9, 2007 to receive comments from the public on the DEIS and the recommended Preferred Alternative.

Delaware's Secretary of Transportation announced the Green Alternative North Option as the Preferred Alternative on May 17, 2007. The Green Alternative North Option is preferred



because, although the impacts to the natural and built environment are generally comparable to other alternatives considered (except for Yellow), this alternative best meets the project's purpose and need and is supported by the resource and regulatory agencies. The Green Alternative North Option has the lowest impact on forested area and existing communities and provides the least visual and noise impacts while carrying a greater volume of traffic and minimally impacting travel patterns during construction. A Final Environmental Impact Statement is anticipated in the fall of 2007.

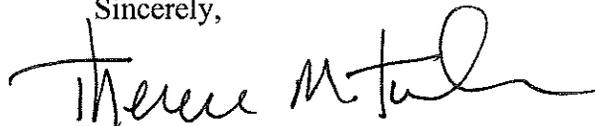
DelDOT, on behalf of the FHWA, is submitting for your review and completion Form NRCS-CPA-106, Farmland Conversion Impact Rating Form for Corridor Type Projects. In accordance with the *US Department of Agriculture Steps for Processing the Farmland Conversion Impact Rating Form*, DelDOT has completed Parts I and III. The total acres to be converted directly (Part III.A) represents the Preferred Alternative road alignment limit of disturbance plus all parcels designated for mitigation and/or borrow sites (1,108 acres). The total acres to be converted indirectly (Part III.B) include any additional lands that will become inaccessible because of the project (462 acres).

Attached please find the original and three copies of the partially completed form and figures showing the project area and the Preferred Alternative alignment. The Farmland Conversion Impact Rating Form has been completed for the Preferred Alternative.

Every effort was made during the planning process to avoid and minimize impacts to farmland and active farm parcels.

Thank you for your assistance in completing this form. If you should have any questions or need additional information to complete the Farmland Conversion Impact Rating Form, please contact Ms. Helen German (410-462-9341) or myself at 302-760-2280.

Sincerely,



Therese M. Fulmer
Manager, Environmental Studies

Attachments

CC: Mark Tudor, DelDOT
Robert Kleinburd, FHWA
William K Hellmann, RK&K
Milton Melendez, DDA
Helen German, RK&K

**FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS**

PART I (To be completed by Federal Agency)	3. Date of Land Evaluation Request	4. Sheet 1 of _____
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1. Name of Project	5. Federal Agency Involved
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2. Type of Project	6. County and State
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PART II (To be completed by NRCS)	1. Date Request Received by NRCS	2. Person Completing Form
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3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input type="checkbox"/> NO <input type="checkbox"/>	4. Acres Irrigated Average Farm Size
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5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: _____ %	7. Amount of Farmland As Defined in FPPA Acres: _____ %
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8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS
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PART III (To be completed by Federal Agency)	Alternative Corridor For Segment			
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	Corridor A	Corridor B	Corridor C	Corridor D
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A. Total Acres To Be Converted Directly				
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B. Total Acres To Be Converted Indirectly, Or To Receive Services				
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C. Total Acres In Corridor				
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PART IV (To be completed by NRCS) Land Evaluation Information				
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A. Total Acres Prime And Unique Farmland				
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B. Total Acres Statewide And Local Important Farmland				
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C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
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D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
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PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)				
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PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points			
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1. Area in Nonurban Use	15			
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2. Perimeter in Nonurban Use	10			
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3. Percent Of Corridor Being Farmed	20			
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4. Protection Provided By State And Local Government	20			
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5. Size of Present Farm Unit Compared To Average	10			
--	----	--	--	--

6. Creation Of Nonfarmable Farmland	25			
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7. Availability Of Farm Support Services	5			
--	---	--	--	--

8. On-Farm Investments	20			
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9. Effects Of Conversion On Farm Support Services	25			
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10. Compatibility With Existing Agricultural Use	10			
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TOTAL CORRIDOR ASSESSMENT POINTS	160			
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PART VII (To be completed by Federal Agency)				
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Relative Value Of Farmland (From Part V)	100			
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Total Corridor Assessment (From Part VI above or a local site assessment)	160			
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TOTAL POINTS (Total of above 2 lines)	260			
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1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
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5. Reason For Selection:

Signature of Person Completing this Part:	DATE
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NOTE: Complete a form for each segment with more than one Alternate Corridor

United States Department of Agriculture



Natural Resources Conservation Service
1221 College Park Drive
Suite 100
Dover Delaware 19904

Therese M. Fulmer
Manager, environmental Studies
State Of Delaware
Department of Transportation
800 Bay Road
P.O. Box 778
Dover, Delaware 19903.

August 28, 2007

Dear Ms. Fulmer

Attached please find three copies of the NRCS-CSP-106 for the US 301 Project. We have completed Parts II and IV. Please call me at 302-678-4180 if you have any questions.

A handwritten signature in black ink, appearing to read "Paul M. Petrichenko".

PAUL M. PETRICHENKO
ASTC - Programs



**FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS**

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request	7/17/07	4. Sheet 1 of <u>1</u>
1. Name of Project US 301 Project Development		5. Federal Agency Involved DelDOT; FHWA		
2. Type of Project Transportation		6. County and State New Castle County, DE; Middletown, DE		
PART II (To be completed by NRCS)		1. Date Request Received by NRCS	2. Person Completing Form	
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form).		7/25/07	PAUL PETRICHENKO	
YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated		Average Farm Size
5. Major Crop(s) CORN, SOY BEANS, SMALL GRAIN		2637		200
6. Farmable Land in Government Jurisdiction Acres: 59946 % 21.8		7. Amount of Farmland As Defined in FPPA Acres: 47,957 % 17		
8. Name Of Land Evaluation System Used Corridor Assessment		9. Name of Local Site Assessment System Corridor Assessment		10. Date Land Evaluation Returned by NRCS 8/28/07

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	1,108			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	462			
C. Total Acres In Corridor	1,570	0	0	0

PART IV (To be completed by NRCS) Land Evaluation Information	
A. Total Acres Prime And Unique Farmland	417
B. Total Acres Statewide And Local Important Farmland	74
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	1.6
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	32.4

PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)	
	90.7

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points				
1. Area in Nonurban Use	15				
2. Perimeter in Nonurban Use	10				
3. Percent Of Corridor Being Farmed	20				
4. Protection Provided By State And Local Government	20				
5. Size of Present Farm Unit Compared To Average	10				
6. Creation Of Nonfarmable Farmland	25				
7. Availability Of Farm Support Services	5				
8. On-Farm Investments	20				
9. Effects Of Conversion On Farm Support Services	25				
10. Compatibility With Existing Agricultural Use	10				
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	0	0	0

PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100				
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS (Total of above 2 lines)	260	0	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
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5. Reason For Selection:

Signature of Person Completing this Part: _____ DATE _____

NOTE: Complete a form for each segment with more than one Alternate Corridor



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

CAROLANN WICKS, P.E.
SECRETARY

October 25, 2007

Mr. Paul Petrichenko, Assistant State Conservationist
Natural Resources Conservation Service
1203 College Park Drive
Suite 101
Dover, DE 19904

Subject: US 301 Project Development
From DE/MD state line to SR 1
Transmittal of Form NRCS-CPA-106 Farmland Conversion Impact Rating Form
Completed

Dear Mr. Petrichenko:

The Delaware Department of Transportation (DelDOT) is submitting, on behalf of the Federal Highway Administration, the completed Form NRCS-CPA-106, Farmland Conversion Impact Rating Form for Corridor Type Projects. In accordance with the *US Department of Agriculture Steps for Processing the Farmland Conversion Impact Rating Form*, we have now completed Parts VI and VII. We are including a narrative discussing, in some detail, how we arrived at each of the scores for the 10 corridor assessment criteria. We have assessed a score of 104 for the Total Corridor Assessment Points, bringing the Total Points for the US 301 project to 196.

Attached please find three copies of the completed form.

Since the Secretary of Transportation's announcement of the Green Alternative North Option as the Preferred Alternative on May 17, 2007, we have continued the planning process for the US 301 project. Refinements in design, more intensive wetlands delineation, more detailed forest lands delineation, and the completion of the assessment of adverse effects on historic properties are some of the elements that have contributed to our evaluation of the Preferred Alternative that will be presented in the Final Environmental Impact Statement that we anticipate publishing this November.

Thank you again for your assistance in completing this form. If you should have any questions or need additional information, please contact Ms. Helen German (410-462-9341) or myself at 302-760-2280.

Sincerely,

A handwritten signature in black ink, appearing to read "Therese M. Fulmer". The signature is fluid and cursive, with a long horizontal stroke at the end.

Therese M. Fulmer
Manager, Environmental Studies

Attachments

CC: Mark Tudor, DelDOT
Robert Kleinburd, FHWA
William K Hellmann, RK&K
Milton Melendez, DDA
Helen German, RK&K

**FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS**

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 7/17/07	4. Sheet 1 of 1
1. Name of Project US 301 Project Development		5. Federal Agency Involved DeIDOT; FHWA	
2. Type of Project Transportation		6. County and State New Castle County, DE; Middletown, DE	
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 7/25/07	2. Person Completing Form Paul Petrichenko
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form.) YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated 2637	Average Farm Size 200
5. Major Crop(s) corn, soybeans, small grain	6. Farmable Land in Government Jurisdiction Acres: 59946 % 21.8	7. Amount of Farmland As Defined in FPPA Acres: 47,957 % 17	
8. Name Of Land Evaluation System Used Corridor Assessment	9. Name of Local Site Assessment System Corridor Assessment	10. Date Land Evaluation Returned by NRCS 8/28/07	

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	1,108			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	462			
C. Total Acres In Corridor	1,570	0	0	0

PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	417			
B. Total Acres Statewide And Local Important Farmland	74			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	2			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	32			

PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points) **90.7**

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points				
1. Area in Nonurban Use	15	8			
2. Perimeter in Nonurban Use	10	7			
3. Percent Of Corridor Being Farmed	20	10			
4. Protection Provided By State And Local Government	20	20			
5. Size of Present Farm Unit Compared To Average	10	5			
6. Creation Of Nonfarmable Farmland	25	25			
7. Availability Of Farm Support Services	5	5			
8. On-Farm Investments	20	14			
9. Effects Of Conversion On Farm Support Services	25	8			
10. Compatibility With Existing Agricultural Use	10	2			
TOTAL CORRIDOR ASSESSMENT POINTS	160	104	0	0	0

PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	90.7			
Total Corridor Assessment (From Part VI above or a local site assessment)	160	104	0	0	0
TOTAL POINTS (Total of above 2 lines)	260	104	0	0	0

1. Corridor Selected: Green North Alternative	2. Total Acres of Farmlands to be Converted by Project: 1198.00	3. Date Of Selection: 5/17/07	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
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5. Reason For Selection:
The Green North Alternative is preferred based on a holistic evaluation of the impacts of the alternatives retained for detailed study on the natural and built environment. Green North is preferred because it has fewer impacts on communities and the best mitigation potential for those impacts. It best meets the Purpose & Need for the project. It has a single, more perpendicular crossing of Scott Run, rather than two crossings. There are no direct physical impacts to standing historic structures, and it avoids impacting two long-term family owned & operated farms.

Signature of Person Completing this Part *Debra Green* DATE **10/25/07**

NOTE: Complete a form for each segment with more than one Alternate Corridor



**US 301 Project Development
FCIR Form CPA106
Corridor Assessment Scoring**

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?

More than 90 percent	15 points
90 to 20 percent	14 to 1 point(s)
Less than 20 percent	0 points

*The centerline of the Preferred Alternative was plotted on a map of area parcels. The map was compared visually with aerial photography of the project area and parcels that are in nonurban use (farm uses) were identified. Using GIS, the area considered nonurban and urban were compiled and calculated. The result of this method indicates that approximately 41% of the area can be considered urban; the remaining 59% can be considered nonurban. Of the nonurban land, most is located north of Boyds Corner Road and west of Middletown. Nonurban uses include cropland, equestrian farms and dairy farms. **Score = 8 points***

(2) How much of the perimeter of the site borders on land in nonurban use?

More than 90 percent	10 points
90 to 20 percent	9 to 1 point(s)
less than 20 percent	0 points

*A majority of the perimeter of the project borders on farmland and suburban residential developments. Again, using GIS and the aerial mapping produced for Question 1, it was determined that approximately 67 % of the perimeter of the Preferred Alternative LOD is in nonurban or farm-type use. Uses that could be considered urban include existing highways, town of Middletown, and in the vicinity of existing US 301 and the NS railroad, north of Middletown. The balance of land use is suburban residential development and nonurban (equestrian, dairy farming and cropland). **Score = 7 points***

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?

More than 90 percent	20 points
90 to 20 percent	19 to 1 point(s)
Less than 20 percent	0 points

*Many of the impacted parcels have been farmed for more than 5 of the last 10 years. Many of the parcels slated for development (approved or pending), as well as the DelDOT-owned land previously purchased for the US 301 project, has been farmed regularly. Visually estimating farmed parcels that are impacted by the project, it is estimated that 50% of the land to be used by the project and in the adjacent 1-mile corridor has been farmed. **Score = 10 points***



**US 301 Project Development
FCIR Form CPA106
Corridor Assessment Scoring**

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?

Site is protected	20 points
Site is not protected	0 points

Both New Castle County and the State of Delaware have agricultural preservation programs within the project area. Two of the farmland parcels impacted by the project are protected as agricultural easements – permanent deed restrictions – and one parcel is a 10-year preservation district. Score = 20 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average-size farming unit in the County?

As large or larger	10 points
Below average deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average	9 to 0 points

The average farm size in Delaware is 226 acres (in 2006). The average size of farms adjacent to the project is 174 acres, or 77% as large as the average farm size. Score = 6 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to more than 25 percent of acres directly converted by the project	25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project	1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project	0 points

The project will acquire some additional farmland that will, because of the alignment of the roadway, become inaccessible for continued farming. The project LOD was presented as 1,108 acres, and the project will acquire an additional 462 acres (remainders of impacted parcels), of which an estimated 320 acres is from farmed parcels, or 29% of the total acres to be converted directly. Score = 25 points



**US 301 Project Development
FCIR Form CPA106
Corridor Assessment Scoring**

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer’s markets?

All required services are available	5 points
Some required services are available	4 to 1 point(s)
No required services are available	0 points

*There is a sufficient amount of farm services in the vicinity of the project, and the project will not cause the cessation of any available services. An additional connection between Strawberry Lane and existing US 301 is being added (at the request of area farmers) to provide a safer access to existing farm services for farm vehicles. **Score = 5 points***

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High amount of on-farm investment	20 points
Moderate amount of on-farm investment	19 to 1 point(s)
No on-farm investment	0 points

*A few of the farmed parcels are substantially invested in barns and other storage buildings. Many of the farm fields, especially north of Boyds Corner Road (and including the parcels west of Middletown that are owned by DelDOT), are rental fields with no discernable on-farm investments. These fields are leased until development is approved. The project will cross the Drawyers Creek tax ditch system, which provides for irrigation and drainage of farm fields. **Score = 14 points***

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction in demand for support services if the site is converted	25 points
Some reduction in demand for support services if the site is converted	1 to 24 point(s)
No significant reduction in demand for support services if the site is converted	0 points

*As the area becomes more and more developed, the need for agricultural support services continues to lessen. The project will not influence this need as much as the continued conversion of farmland to residential uses. The project supports the demand for farm support services through the addition of the Strawberry Lane connection to existing US 301. **Score = 8 points***



**US 301 Project Development
FCIR Form CPA106
Corridor Assessment Scoring**

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?

Proposed project is incompatible to existing agricultural use of surrounding farmland	10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland	9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland	0 points

*It is not incompatible to have farm fields adjacent to roadways and highways. As such, the project is not incompatible with farm uses and will in itself not likely cause the cessation of farming adjacent to the roadway upon its completion. None of the development in the area is dependent upon the US 301 project to be completed. A secondary and cumulative effects analysis concluded that the project could affect the rate at which the planned development is completed, but would not affect the amount. The continuance of long-term family owned farms was a strong issue in the determining the alignment of the new roadway north of Boyds Corner Road. **Score = 2 points***

Scoring Totals:

Question	Score
1	8
2	7
3	10
4	20
5	6
6	25
7	5
8	14
9	8
10	2
Total	105