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

CAROLANN WICKS, P.E.
SECRETARY

December 10, 2010

Mr. Conway Gregory
Town Manager
Town of Ocean View
201 Central Avenue
Ocean View, DE 19970

Dear Mr. Gregory:

The attached Traffic Impact Study (TIS) review letter for the **CVS - Ocean View** development has been completed under the responsible charge of a registered professional engineer whose firm is authorized to work in the State of Delaware. They have found the TIS to conform to DelDOT's Rules and Regulations for Subdivision Streets and other accepted practices and procedures for such studies. DelDOT accepts this TIS review and concurs with the recommendations. We are providing it to you in fulfillment of our joint agreement regarding the review of TIS.

If you have any questions concerning this letter or the attached review letter, please contact me at (302) 760-2134.

Sincerely,

Todd Sammons
Project Engineer

TS:tsm
Enclosures
cc with enclosures: Ms. Constance C. Holland, Office of State Planning Coordination
Mr. Lawrence Lank, Sussex County Planning and Zoning Commission
Mr. Mark Keeley, Traffic Concepts, Inc.
Mr. Andrew J. Parker, McCormick Taylor
Mr. Mir Wahed, Johnson, Mirmiran, and Thompson
DelDOT Distribution

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Frederick H. Schranck, Deputy Attorney General
Chief of Community Relations, Public Relations
Natalie Barnhart, Director, Transportation Solutions (DOTS)
Ralph A. Reeb, Director, Division of Planning
Michael H. Simmons, Assistant Director, Project Development South, DOTS
Donald D. Weber, Chief Traffic Engineer, Traffic, DOTS
Mark Luszcz, Assistant Chief Traffic Engineer, Traffic, DOTS
Thomas E. Meyer, Traffic Studies Manager, Traffic, DOTS
Theodore G. Bishop, Assistant Director, Development Coordination
Jeff Reed, Assistant Director, Transportation Engineering
Marvin Roberts, Public Works Manager, South District
Jennifer Pinkerton, Deputy Principal Assistant, Pavement Management
William J. Dryden, Transportation Planner, Project Development South, DOTS
Lisa Collins, Service Development Planner, Delaware Transit Corporation
Marc Coté, Subdivision Engineer, Development Coordination
T. William Brockenbrough, Jr., County Coordinator, Development Coordination
Lenny Massotti, Sussex Subdivision Coordinator, Development Coordination
John Fiori, Subdivision Manager, Development Coordination
Anthony Aglio, Bicycle Coordinator, Statewide & Regional Planning
Richard Sinegar, Pedestrian Coordinator, Statewide & Regional Planning
Troy Brestel, Project Engineer, Development Coordination

McCormick Taylor
Engineers & Planners Since 1946

December 7, 2010

Mr. Todd J. Sammons
Project Engineer
DelDOT Division of Planning
P.O. Box 778
Dover, DE 19903

RE: Agreement No. 1404
Traffic Impact Study Services
Task No. 49A – CVS – Ocean View

Dear Mr. Sammons,

McCormick Taylor has completed its review of the Traffic Impact Study (TIS) for CVS - Ocean View prepared by Traffic Concepts, Inc. (TCI), dated October 2009. This review was assigned as Task Number 49A. TCI prepared the report in a manner generally consistent with DelDOT's *Standards and Regulations for Subdivision Streets and State Highway Access*.

The TIS evaluates the impacts of CVS - Ocean View, proposed to be located on the southwest corner of Delaware Route 26 (Sussex Road 26 / Atlantic Avenue) and West Avenue (Sussex Road 361) in the Town of Ocean View in Sussex County, Delaware. The proposed development would consist of a 13,225 square-foot pharmacy with drive-through window. Currently, there are a few commercial office buildings on the property. These would be eliminated as the site is redeveloped. Full build-out of the property would also include a 4,500 fast-food restaurant with drive-through that would be built adjacent to the pharmacy. Two access points are proposed: one along Delaware Route 26 and one along West Avenue. Construction of the pharmacy is anticipated to be complete by 2011. The construction timeframe of the fast-food restaurant is uncertain, but was also assumed as complete by 2011 for the purpose of this TIS. Traffic volumes for both the pharmacy and the fast-food restaurant were accounted for in this TIS.

The land is currently zoned as GB (General Business) and R-1 (Residential) within the Town of Ocean View. The developer has proposed rezoning the R-1 parcels to GB.

DelDOT currently has one relevant project within the study area. This is the *SR 26, Atlantic Avenue from Clarksville to Assawoman Canal* project (State Contract No. 24-112-10). According to DelDOT's Project Manager, future improvements will include widening along the Delaware Route 26 corridor from Clarksville (western end) to the Assawoman Canal (eastern end) and the installation of continuous center left turn lane. Each intersection in the corridor will be evaluated for possible widening to allow for the addition of turn lanes. Central Avenue (Sussex Road 84 / Sussex Road 357) will also be realigned. This project is currently in the design stage. Pending funding availability, construction will not begin until at least late 2012.

Based on our review, we have the following comments and recommendations:

The following intersections exhibit level of service (LOS) deficiencies without the implementation of physical roadway and/or traffic control improvements:

Intersection	***Situations for which deficiencies occur***
Delaware Route 26 and Site Entrance (if full access)	2011 Saturday with CVS; 2011 Saturday with CVS and fast-food restaurant
Delaware Route 26 and Central Avenue	2011 Saturday with CVS; 2011 Saturday with CVS and fast-food restaurant

Although analysis indicates that the intersection of Delaware Route 26 and Central Avenue would have LOS deficiencies during the future summer Saturday peak hour, due to right-of-way and property impacts of potential improvements and the timing of an upcoming DelDOT project, we do not recommend any improvements be implemented directly by the developer at this intersection. Capacity improvements at this intersection should be completed as part of DelDOT's *SR 26, Atlantic Avenue from Clarksville to Assawoman Canal* project and, in lieu of constructing specific improvements at this intersection, the developer should contribute funds toward this DelDOT project.

Should the Town of Ocean View choose to approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan. All applicable agreements (i.e. letter agreements for off-site improvements and traffic signal agreements) should be executed prior to entrance plan approval for the proposed development.

1. The developer should enter into an agreement with DelDOT to contribute towards improvements as part of DelDOT's *SR 26, Atlantic Avenue from Clarksville to Assawoman Canal* project. It is expected that other developers would also enter into such an agreement. The developer should coordinate with DelDOT in order to determine the equitable contribution towards this project.

2. The developer should construct the right-in/right-out site entrance on Delaware Route 26. The proposed configuration is shown in the table below.

Approach	Current Configuration	Proposed Configuration
Eastbound Delaware Route 26	One through lane	One through lane and one right-turn lane
Westbound Delaware Route 26	One through lane	One through lane
Northbound Site Entrance	Approach does not exist	One right-turn lane

Based on DelDOT's *Standards and Regulations for Subdivision Streets and State Highway Access*, the recommended minimum turn-lane length (excluding taper) for the eastbound right-turn lane is 200 feet. The developer should coordinate with DelDOT's Subdivision Section to determine final turn-lane lengths.

The improvements at this intersection shall also include one or more concrete islands to channelize the right-turn movements and restrict left turns from being made at this intersection. To further reinforce the left-turn prohibition at this intersection, No Left Turn signs (MUTCD R3-2) shall be installed along westbound Delaware Route 26 upstream of the intersection and on the northbound site entrance approach.

3. With the CVS being built in advance of DelDOT's *SR 26, Atlantic Avenue from Clarksville to Assawoman Canal* project, the developer must construct the Delaware Route 26 site entrance described in Item No. 2 to accommodate the design of the DelDOT project. For example, the DelDOT project involves widening Delaware Route 26, so the eastbound right-turn lane into the site and the concrete island(s) must be constructed at the proper offset to avoid the need to make site entrance-related changes when the DelDOT project is constructed. The developer should coordinate with DelDOT's Subdivision Section and Division of Transportation Solutions to determine design details for this section of Delaware Route 26.

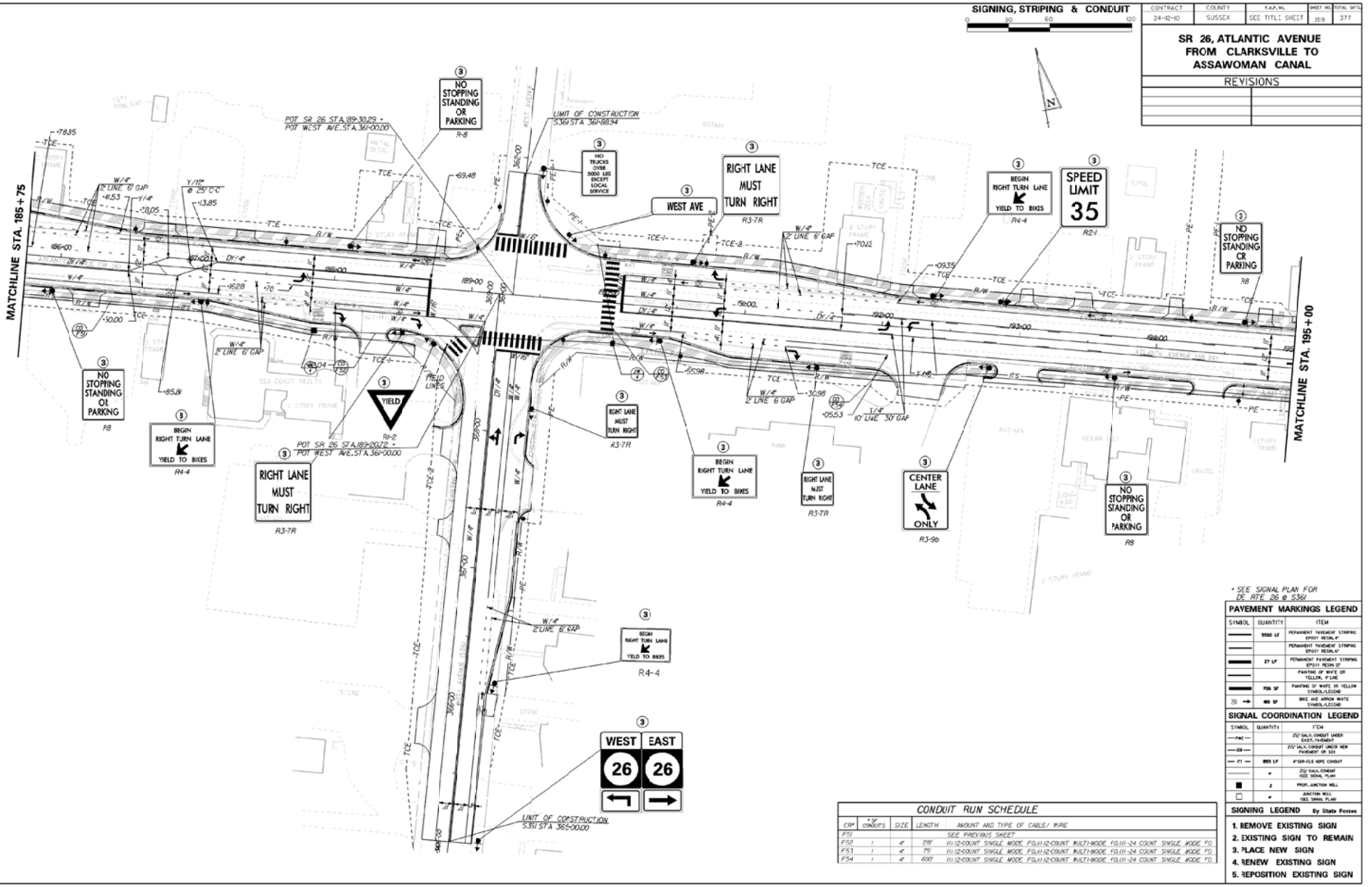
4. The developer should construct the site entrance on West Avenue. The proposed configuration is shown in the table below.

Approach	Current Configuration	Proposed Configuration
Eastbound Site Entrance	Approach does not exist	One shared left/right-turn lane
Northbound West Avenue	One through lane	One left-turn lane and one through lane
Southbound West Avenue	One through lane	One through lane and one right-turn lane

Initial recommended minimum turn-lane lengths (excluding tapers) of the separate turn lanes are listed below. The developer should coordinate with DelDOT's Subdivision Section and Division of Transportation Solutions to determine final turn-lane lengths and design details to ensure consistency with DelDOT's *SR 26, Atlantic Avenue from Clarksville to Assawoman Canal* project. For reference, the DelDOT project's Semi-Final Signing, Striping & Conduit Plan for this area is shown on Page 5. While not shown on that plan, the CVS site entrance on West Avenue would be located near Station 365+50.

Approach	Left-Turn Lane	Right-Turn Lane
Eastbound Site Entrance	N/A	N/A
Northbound West Avenue	100 feet*	N/A
Southbound West Avenue	N/A	100 feet*

* turn-lane length based on deceleration + storage length per DelDOT's *Standards and Regulations for Subdivision Streets and State Highway Access*


SIGNING, STRIPING & CONDUIT
0 30 60 120
CONTRACT 24-112-10 | COUNTY SUSSEX | F.A.P. NO. SEE TITLE SHEET | SHEET NO. 359 | TOTAL SHTS. 377
SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL
REVISIONS
N
MATCHLINE STA. 185+75
MATCHLINE STA. 195+00
NO STOPPING STANDING OR PARKING R-8
LIMIT OF CONSTRUCTION 536 STA 361-88.94
NO TRUCKS OVER 5000 LBS EXCEPT LOCAL SERVICE
WEST AVE
RIGHT LANE MUST TURN RIGHT R3-7R
BEGIN RIGHT TURN LANE YIELD TO BIKES R4-4
SPEED LIMIT 35 R2-1
NO STOPPING STANDING OR PARKING R8
POT SR 26 STA.189+30.29 * POT WEST AVE. STA. 361+00.00
YIELD R1-2
YIELD LINES
POT SR 26 STA.182+20.72 * POT WEST AVE. STA. 361+00.00
RIGHT LANE MUST TURN RIGHT R3-7R
BEGIN RIGHT TURN LANE YIELD TO BIKES R4-4
RIGHT LANE MUST TURN RIGHT R3-7R
CENTER LANE ONLY R3-9b
NO STOPPING STANDING OR PARKING R8
BEGIN RIGHT TURN LANE YIELD TO BIKES R4-4
WEST 26 EAST 26
LIMIT OF CONSTRUCTION 535 STA 365+00.00
* SEE SIGNAL PLAN FOR DE RTE 26 @ S361
PAVEMENT MARKINGS LEGEND
SYMBOL | QUANTITY | ITEM
5550 LF | PERMANENT PAVEMENT STRIPING EPOXY RESIN, 4"
27 LF | PERMANENT PAVEMENT STRIPING EPOXY RESIN, 12"
706 SF | PAINTING OF WHITE OR YELLOW SYMBOL/LEGEND
60 SF | BIKE AND ARROW WHITE SYMBOL/LEGEND
SIGNAL COORDINATION LEGEND
SYMBOL | QUANTITY | ITEM
2½" GALV. CONDUIT UNDER EXIST. PAVEMENT
2½" GALV. CONDUIT UNDER NEW PAVEMENT OR SOD
883 LF | 4" SDR-35 HDPE CONDUIT
2½" GALV. CONDUIT (SEE SIGNAL PLAN)
2 | PROP. JUNCTION WELL
JUNCTION WELL (SEE SIGNAL PLAN)
SIGNING LEGEND By State Forces
1. REMOVE EXISTING SIGN
2. EXISTING SIGN TO REMAIN
3. PLACE NEW SIGN
4. RENEW EXISTING SIGN
5. REPOSITION EXISTING SIGN
CONDUIT RUN SCHEDULE
CR* | * OF CONDUITS | SIZE | LENGTH | AMOUNT AND TYPE OF CABLE/ WIRE
FS1 SEE PREVIOUS SHEET
FS2 1 4" 218' (1) 12-COUNT SINGLE MODE FO, (1) 12-COUNT MULTI-MODE FO, (1) -24 COUNT SINGLE MODE FO
FS3 1 4" 75' (1) 12-COUNT SINGLE MODE FO, (1) 12-COUNT MULTI-MODE FO, (1) -24 COUNT SINGLE MODE FO
FS4 1 4" 600' (1) 12-COUNT SINGLE MODE FO, (1) 12-COUNT MULTI-MODE FO, (1) -24 COUNT SINGLE MODE FO
PREL. TRACING DESIGN CHKD.

5. The following bicycle, pedestrian, and transit improvements should be included:

   a. All bicycle, pedestrian, and transit-related improvements should be consistent with, and installed in coordination with improvements proposed as part of DelDOT's *SR 26, Atlantic Avenue from Clarksville to Assawoman Canal* project.
   b. A right-turn yield to bikes sign (MUTCD R4-4) should be added at the start of each right-turn lane added to Delaware Route 26 and West Avenue.
   c. Where right-turn lanes are added to Delaware Route 26 and West Avenue, a minimum of a five-foot bicycle lane should be dedicated and striped with appropriate markings for bicyclists through the turn lane in order to facilitate safe and unimpeded bicycle travel.
   d. Appropriate bicycle symbols, directional arrows, striping (including stop bars), and signing should be included along bicycle facilities and right-turn lanes within the project limits.
   e. Utility covers should be moved outside of the designated bicycle lane or be flush with the pavement.
   f. Covered bike parking should be included near the entrances of all commercial establishments to be included within this development.
   g. Along the site frontages of Delaware Route 26 and West Avenue, a minimum of a five-foot wide sidewalk (with a minimum of a five-foot buffer from the roadway) that meets current AASHTO and ADA standards should be constructed. The sidewalk should be built within easements to be dedicated to DelDOT from the edge of the right-of-way to the back of the five-foot wide sidewalk. The sidewalk should connect to any paths on adjacent parcels or to the shoulder at the beginning and ending limits of the site frontage.
   h. ADA compliant curb ramps and crosswalks should be provided at all pedestrian crossings, including all site entrances. Type 3 curb ramps are discouraged.
   i. Internal sidewalks for pedestrian safety and to promote walking as a viable transportation alternative should be constructed within the development. These sidewalks should each be a minimum of seven feet wide (with a minimum of a five-foot buffer from the roadway) and should meet current AASHTO and ADA standards. These internal sidewalks should connect the building entrances to the frontage sidewalks.
   j. Where internal sidewalks are located alongside of parking spaces, a buffer should be added to eliminate vehicular overhang onto the sidewalk.
   k. The developer should coordinate with the Delaware Transit Corporation regarding the possibility of adding other transit services and facilities at this location. Internal sidewalks should be connected to any new transit facilities and parking facilities for bicyclists should be included.

Improvements in this TIS may be considered "significant" under DelDOT's *Work Zone Safety and Mobility Procedures and Guidelines*. These guidelines are available on DelDOT's website at http://www.deldot.gov/information/pubs_forms/manuals/de_mutcd/index.shtml. For any additional information regarding the work zone impact and mitigation procedures during

construction please contact Mr. Adam Weiser of DelDOT's Traffic Section. Mr. Weiser can be reached at (302) 659-4073 or by email at Adam.Weiser@state.de.us.

Please note that this review generally focuses on capacity and level of service issues; additional safety and operational issues will be further addressed through DelDOT's subdivision review process.

Additional details on our review of the TIS are attached. Please contact me at (302) 738-0203 or through e-mail at ajparker@mtmail.biz if you have any questions concerning this review.

Sincerely,
McCormick Taylor, Inc.

Andrew J. Parker, P.E., PTOE
Project Manager

Enclosure

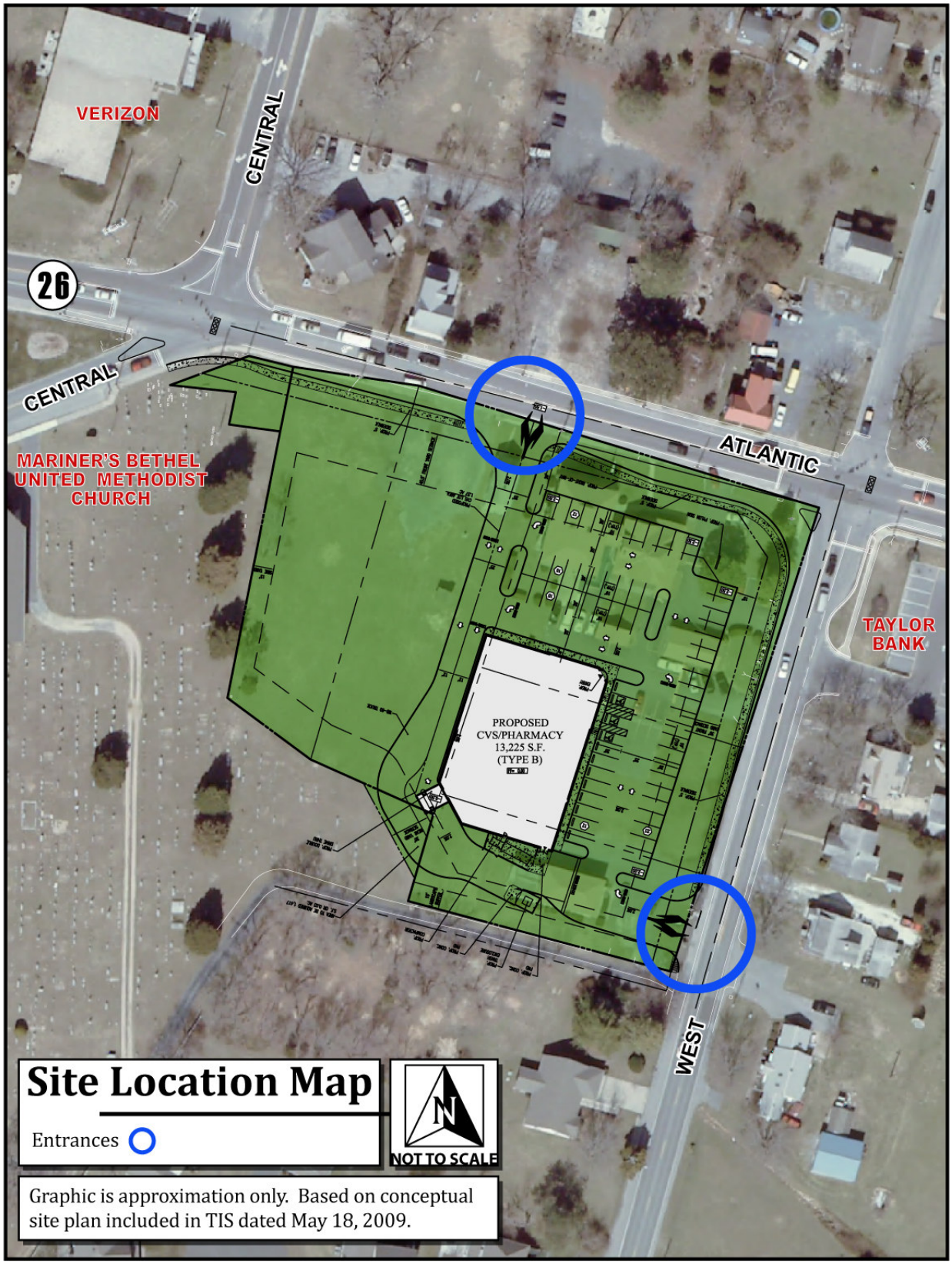
General Information

Report date: October 2009
Prepared by: Traffic Concepts, Inc.
Prepared for: Bohler Engineering
Tax parcels: 1-34-12.00-646, 1-34-12.00-647, 1-34-12.00-648, 1-34-12.00-649, 1-34-12.00-650 and 1-34-12.00-650.01
Generally consistent with DelDOT's *Standards and Regulations for Subdivision Streets and State Highway Access*: Yes

Project Description and Background

Description: The proposed development would consist of a 13,225 square-foot pharmacy with drive-through window. Currently, there are a few commercial office buildings on the property. These would be eliminated as the site is redeveloped. Full build-out of the property would also include a 4,500 fast-food restaurant with drive-through that would be built adjacent to the pharmacy. The pharmacy-only and full build-out scenarios were each analyzed for this TIS.
Location: CVS – Ocean View is proposed to be located on the southwest corner of Delaware Route 26 (Sussex Road 26 / Atlantic Avenue) and West Avenue (Sussex Road 361) in the Town of Ocean View in Sussex County, Delaware. A site location map is included on Page 9.
Amount of land to be developed: approximately 3 acres of land
Land use approval(s) needed: Rezoning and Subdivision approval. The land is currently zoned as GB (General Business) and R-1 (Residential) within the Town of Ocean View. The developer has proposed rezoning the R-1 parcels to GB.
Proposed completion date: 2011
Proposed access locations: Two access points are proposed: one along Delaware Route 26 and one along West Avenue.
Daily Traffic Volumes:

- 2008 Average Annual Daily Traffic on Delaware Route 26: 11,242 vpd
- 2008 Average Annual Daily Traffic on West Avenue: 1,908 vpd


VERIZON
CENTRAL
26
CENTRAL
ATLANTIC
MARINER'S BETHEL
UNITED METHODIST
CHURCH
TAYLOR
BANK
PROPOSED
CVS/PHARMACY
13,225 S.F.
(TYPE B)
WEST
Site Location Map
Entrances
N
NOT TO SCALE
Graphic is approximation only. Based on conceptual site plan included in TIS dated May 18, 2009.

Livable Delaware
(Source: Delaware Strategies for State Policies and Spending, July 2004)

Location with respect to the Strategies for State Policies and Spending Map of Delaware:
The proposed CVS – Ocean View development is located within Investment Level 1 and within the Environmentally Sensitive Developing Area.

Investment Level 1

These areas are often municipalities or urban/urbanizing places where density is generally higher than in surrounding areas. Areas classified as Investment Level 1 are population centers built around a traditional central business district, which offers a wide range of opportunities for employment, shopping and recreation. Investment Level 1 Areas are considered to drive Delaware's economy and therefore reinvestment and redevelopment are encouraged.

In Investment Level 1 Areas, state investments and policies should support and encourage a wide range of uses and densities, promote other transportation options, foster efficient use of existing public and private investments, and enhance community identity and integrity. Typical transportation projects included new or expanded facilities and services for all modes of transportation, including public transportation facilities and services. Projects will also include those that manage traffic flow and congestion, support economic development and redevelopment efforts, and encourage connections between communities and the use of local streets for local trips.

Environmentally Sensitive Developing Areas

Environmentally Sensitive Developing Areas are defined as a Developing District with special environmental design and protection requirements. New regulations are in place in these areas to control the density of development, preserve open space and valuable habitat and to prevent excessive levels of sediments and nutrients in waterways. Regulated areas include Indian River, Indian River Bay and Rehoboth Bay. Residential Planned Communities and Village Style development is encouraged in these areas to provide open space and protect habitat. If a central wastewater system is provided, residential density would be permitted up to the maximum allowable density of the underlying zoning districts. Industrial uses in these areas are regulated by the Delaware Coastal Zone Act, however they do not regulate commercial, residential warehousing or distribution activities.

Proposed Development's Compatibility with Livable Delaware:
The proposed CVS – Ocean View development falls within Investment Level 1 and is to be developed with a pharmacy and potentially a fast-food restaurant. The proposed development is consistent with the character of Investment Level 1 areas. It is therefore concluded that the proposed development generally complies with the policies stated in the 2004 update of the Livable Delaware "Strategies for State Policies and Spending."

Comprehensive Plans

Sussex County Comprehensive Plan:
(Source: Sussex County Comprehensive Plan Update, June 2008)

The Sussex County Comprehensive Plan Future Land Use Map indicates that the proposed CVS – Ocean View development is in the Town of Ocean View, a municipality. Sussex County strongly favors directing development to municipalities that desire it. The specific permitted uses and densities governing new construction within an incorporated municipality will continue to be governed by that municipality's zoning ordinance, its public water and sewer capacities, and its comprehensive planning policies.

Town of Ocean View Comprehensive Plan:
(Source: Town of Ocean View Comprehensive Land Use Plan Update, January 2004)

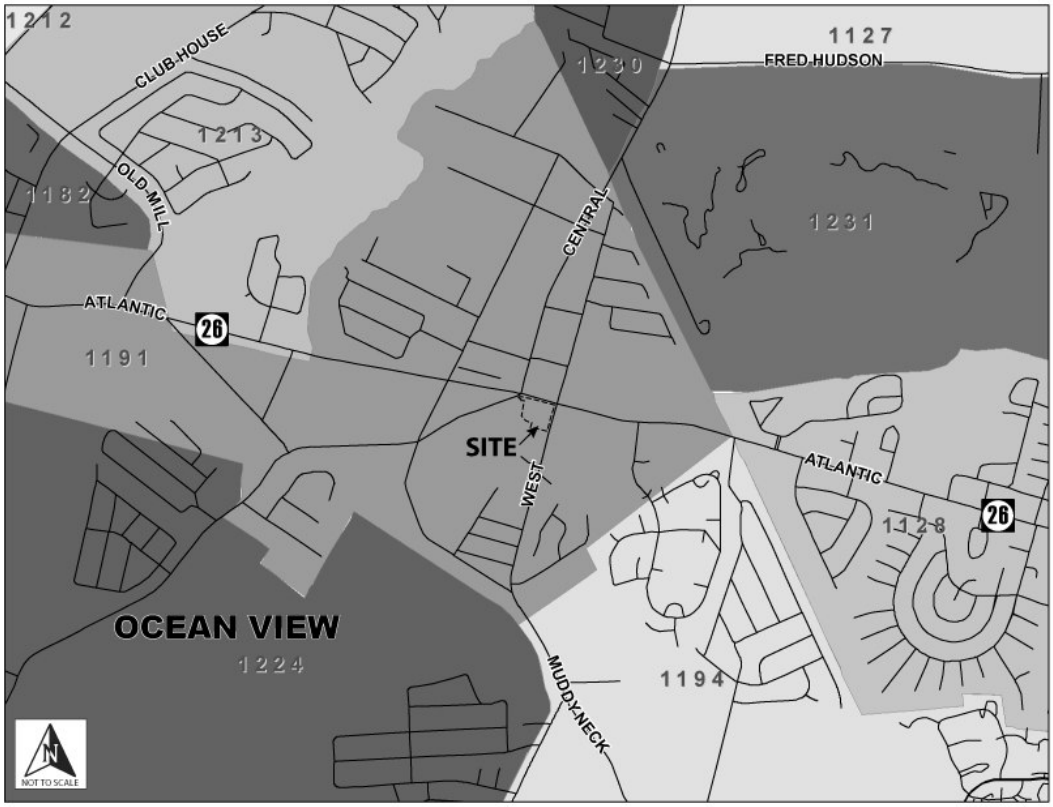
On the Existing Land Use Map, the proposed development parcels are designated as Commercial and Residential, and they remain as such on the Future Land Use Map.

Proposed Development's Compatibility with Comprehensive Plan:
The proposed commercial development is currently zoned as R-1 (Residential) and GB (General Business) in the Town of Ocean View, and the R-1 parcels are proposed to be rezoned to GB. As such, the proposed development appears to be compatible with the Sussex County Comprehensive Plan and the Town of Ocean View Comprehensive Plan.

Transportation Analysis Zones (TAZ)

Transportation Analysis Zones (TAZ) where development would be located: 1191

TAZ Boundaries:



Current employment estimate for TAZ: 497 jobs in 2005
Future employment estimate for TAZ: 694 jobs in 2030
Current population estimate for TAZ: 1,155 people in 2005
Future population estimate for TAZ: 1,588 people in 2030
Current household estimate for TAZ: 515 houses in 2005
Future household estimate for TAZ: 715 houses in 2030
Relevant committed developments in the TAZ: Norino Property
Would the addition of committed developments to current estimates exceed future projections: No
Would the addition of committed developments and the proposed development to current estimates exceed future projections: No

Relevant Projects in the DelDOT Capital Transportation Program (FY 2010 – FY 2015)

DelDOT currently has one relevant project within the study area. This is the *SR 26, Atlantic Avenue from Clarksville to Assawoman Canal* project (State Contract No. 24-112-10). According to DelDOT's Project Manager, future improvements will include widening along the Delaware Route 26 corridor from Clarksville (western end) to the Assawoman Canal (eastern end) and the

installation of continuous center left turn lane. Each intersection in the corridor will be evaluated for possible widening to allow for the addition of turn lanes. Central Avenue (Sussex Road 84 / Sussex Road 357) will also be realigned. This project is currently in the design stage. Pending funding availability, construction will not begin until at least late 2012.

Trip Generation

Trip generation for the proposed development was computed using comparable land uses and equations contained in Trip Generation, Eighth Edition, published by the Institute of Transportation Engineers (ITE). The following land uses were utilized to estimate the amount of new traffic generated for this development:

- 13,225 square-foot pharmacy with drive-through (ITE Land Use Code 881)
- To be added for potential full build-out scenario: 4,500 square-foot fast-food restaurant with drive-through (ITE Land Use Code 934)

Table 1
CVS – OCEAN VIEW PEAK HOUR TRIP GENERATION

Land Use	AM Peak Hour			PM Peak Hour			Saturday Mid-Day		
	In	Out	Total	In	Out	Total	In	Out	Total
13,225 sf pharmacy with drive-through	20	15	35	69	69	138	52	52	104
Pass-by Trips	-	-	-	34	34	68	25	25	50
Net External Pharmacy Trips	**20**	**15**	**35**	**35**	**35**	**70**	**27**	**27**	**54**
4,500 sf fast-food restaurant with drive-through	113	109	222	79	73	152	136	131	267
Pass-by Trips	55	53	88	40	37	77	68	65	133
Net External Restaurant Trips	**58**	**56**	**114**	**39**	**36**	**75**	**68**	**66**	**134**
TOTAL TRIPS	**78**	**71**	**149**	**74**	**71**	**145**	**95**	**93**	**188**

Table 2
CVS – OCEAN VIEW DAILY TRIP GENERATION

Land Use	Weekday ADT			Saturday ADT		
	In	Out	Total	In	Out	Total
13,225 sf pharmacy with drive-through	583	583	1,166	N/A*	N/A*	N/A*
4,500 sf fast-food restaurant with drive-through	1,116	1,116	2,232	1,625	1,625	3,250
TOTAL TRIPS	**1,699**	**1,699**	**3,398**	**N/A***	**N/A***	**N/A***

* Daily trip generation information for Saturday is not provided for this type of land use

Overview of TIS

Intersections examined:

1) Delaware Route 26 & Site Entrance
2) West Avenue & Site Entrance
3) Delaware Route 26 & West Avenue
4) Delaware Route 26 & Central Avenue

Conditions examined:

1) 2009 existing conditions (Case 1)
2) 2011 without CVS (Case 2)
3) 2011 with CVS
    a. Full Access Site Entrance on Delaware Route 26 (Case 3A)
    b. Right-In/Right-Out Site Entrance on Delaware Route 26 (Case 3B)
4) 2011 with CVS plus fast-food restaurant with drive-through
    a. Full Access Site Entrance on Delaware Route 26 (Case 4A)
    b. Right-In/Right-Out Site Entrance on Delaware Route 26 (Case 4B)

Peak hours evaluated: Weekday morning and evening, and Saturday mid-day peak hours

Committed developments considered:

1) Norino Property (9,520 square feet of retail space, 2,880 square feet of office space, and a 2,880 square-foot convenience store with gas pumps)

Intersection Descriptions

1) Delaware Route 26 & Site Entrance
Type of Control: proposed two-way stop-controlled (right-in/right-out T-intersection)
Eastbound approach: (Delaware Route 26) one shared through/right-turn lane
Westbound approach: (Delaware Route 26) one through lane
Northbound approach: (Site Entrance) one right-turn-only lane, stop-controlled

2) West Avenue & Site Entrance
Type of Control: proposed two-way stop-controlled (T-intersection)
Eastbound approach: (Site Entrance) one shared left/right-turn lane, stop-controlled
Northbound approach: (West Avenue) one shared through/left-turn lane
Southbound approach: (West Avenue) one shared through/right-turn lane

3) Delaware Route 26 & West Avenue
Type of Control: signalized four-leg intersection
Eastbound approach: (Delaware Route 26) one shared left/through/right-turn lane
Westbound approach: (Delaware Route 26) one shared left/through/right-turn lane
Northbound approach: (West Avenue) one shared through/left-turn lane and one right-turn lane
Southbound approach: (West Avenue) one shared left/through/right-turn lane

4) Delaware Route 26 & Central Avenue
Type of Control: signalized four-leg intersection
Eastbound approach: (Delaware Route 26) one left-turn lane and one through lane
Westbound approach: (Delaware Route 26) one left-turn lane and one shared through/right-turn lane
Northbound approach: (Central Avenue) one shared left/through/right-turn lane
Southbound approach: (Central Avenue) one shared through/left-turn lane and one right-turn lane

Transit, Pedestrian, and Bicycle Facilities

Existing transit service: The Delaware Transit Corporation (DTC) currently does not offer any transit service near the study area.

Planned transit service: Mr. Mark Keeley from TCI contacted Ms. Lisa Collins, a Service Development Planner for the DTC, via email on September 2, 2009 to determine whether DTC has any plans to extend the existing transit system in the vicinity of the development. In an email dated the same day, Ms. Collins stated there is not any current service at this location and there is no planned service scheduled in the six-year business plan.

Existing bicycle and pedestrian facilities: According to the *Delaware Kent and Sussex Counties Bicycle Touring Map*, Delaware Route 26 is designated as having above average cycling conditions with high traffic volumes (greater than 10,000 ADT). Central Avenue north of Delaware Route 26 has above average cycling conditions with moderate traffic volumes (2,000 – 10,000 ADT). Central Avenue south of Delaware Route 26 has below average cycling conditions with low traffic volumes (less that 2,000 ADT). West Avenue has average cycling conditions with moderate traffic volumes. There are sidewalks along Delaware Route 26 through the study area, along the church/cemetery frontage on Central Avenue south of Delaware Route 26, and for a short distance along West Avenue south of Delaware Route 26.

Planned bicycle and pedestrian facilities: DelDOT's Bicycle and Pedestrian Facilities Team provided comments in a letter from Anthony Aglio and Jennifer Baldwin dated September 9, 2009. In the letter, they stated the following: Livable Delaware's updated State Strategies for Spending Map indicates the site is located in an Investment Level 1 area, where all transportation modes should be included. This site is located on a Regional Bicycle Route (Delaware Route 26) and a Connector Bicycle Route (West Avenue). The site is in close proximity to Central Avenue, Cedar Neck Road, and Muddy Neck Road, all of which are Connector Bicycle Routes, and Delaware Route 1, which is a Statewide Bicycle Route. This proposed commercial development is in a highly developed area that includes existing commercial, residential, and public uses. The parcel is also in close proximity to the Town of Millville and the Town of Bethany Beach, both of which, along with the Town of Ocean View, are recognized as a highly-used corridor for bicycle and pedestrian use and ensures an increase in bicycle and pedestrian traffic.

If the development does occur, the following requests should be incorporated into the project to facilitate bicycle and pedestrian transportation:

a. Any improvements should be consistent with, and in coordination with, improvements proposed as part of DelDOT Project No. 24-112-10, F.A.P. No. ESTP S026 (26): SR 26 Atlantic Avenue from Clarksville to Assawoman Canal.
b. Include five (5) foot bike lanes, with bike symbols and directional arrows, through all right-turn lanes or bypass lanes.
c. Maintain five (5) foot buffer with frontage sidewalk.
d. Include ADA compliant curb ramps and crosswalks at entrances.
e. Connect sidewalk at southeast corner of building to existing sidewalk.
f. Where internal sidewalks are located alongside of parking spaces, a buffer, physical barrier, or signage should be added to eliminate vehicular overhang on the sidewalk.
g. Covered bike parking should be included near the entrances of commercial locations.
h. The developer of this project should contact DART regarding the addition of transit service and transit facilities at this location. The internal sidewalks should be connected to this stop and include parking facilities for bicyclists.
i. Any intersection improvements resulting from this study should include bicycle and pedestrian facilities.

Previous Comments

All comments from DelDOT's Scoping Letter, Traffic Count Review, Preliminary TIS Review, and Revised Preliminary TIS Review were addressed in the Final TIS submission.

General HCS Analysis Comments
(see table footnotes on the following pages for specific comments)

1) For existing conditions, the TIS assumed a peak hour factor (PHF) of either actual PHF (based on the traffic count data) or 0.92, whichever was greater, at all intersections. McCormick Taylor used actual PHF for existing conditions. For future conditions, the TIS assumed the same PHF they used for existing conditions. McCormick Taylor used different assumptions for future PHF. Where the lane group volume increased from the existing volume, McCormick Taylor assumed future PHF of either existing PHF or 0.92, whichever was greater, at all intersections. For cases where the lane group volume did not change from existing to future conditions, McCormick Taylor assumed future PHF equal to existing PHF.

2) For existing conditions, the manual turning movement count data did not include a separate count of heavy vehicles, so the TIS generally used heavy vehicle factors (HV) from the ATR counts. However, some of the HV factors used in the TIS analyses were not consistent with the ATR data. McCormick Taylor used HV consistent with the ATR data to the extent it was available, and used 2% HV for movements where ATR data was not available. For future conditions at existing intersections, the TIS and McCormick Taylor assumed future HV to be the same as existing HV and assumed no minimum HV. The TIS assumed HV of 5% for the site entrances. McCormick Taylor assumed HV of 2% for the site entrances.

3) The HCS analyses included in the TIS did not always reflect the lane widths observed in the field by McCormick Taylor. McCormick Taylor's HCS analyses incorporated the field-measured lane widths.

4) The TIS input existing Right-Turn-on-Red (RTOR) volumes for some future analyses. Due to increased volumes and fewer available gaps, there would likely be fewer vehicles able to make right turns on red, so McCormick Taylor input no RTOR volumes for future conditions.

5) The TIS sometimes included bicycle and pedestrian volume information in the HCS analyses. Due to low bicycle and pedestrian activity, McCormick Taylor's HCS analyses did not include bicycle and pedestrian volumes. This difference did not directly produce significantly different analysis results.

6) The TIS and McCormick Taylor used different cycle lengths and/or signal timing parameters when analyzing the signalized intersections in some cases.

Table 3
PEAK HOUR LEVELS OF SERVICE (LOS)
based on Traffic Impact Study for CVS - Ocean View
Report dated October 2009
Prepared by Traffic Concepts, Inc.

Unsignalized Intersection [1] **Two-Way Stop Control (T-intersection)**	**LOS per TIS**			**LOS per McCormick Taylor**		
Delaware Route 26 & Site Entrance	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2011 with CVS, full access (Case 3A)						
Westbound Delaware Route 26 – Left	A (8.4)	A (8.6)	B (10.0+)	A (8.4)	A (8.6)	B (10.1)
Northbound Site Entrance	B (14.0)	C (20.4)	E (38.4)	B (13.9)	C (20.2)	E (41.0)
2011 with CVS, right-in/right-out access (Case 3B)						
Northbound Site Entrance – right	B (11.3)	B (11.9)	C (16.8)	B (11.2)	B (11.8)	C (16.7)
2011 with CVS, right-in/right-out access (Case 3B) *With Improvement Option 1* [2]						
Northbound Site Entrance – right	n/a	n/a	n/a	B (11.2)	B (11.7)	C (16.5)
2011 with CVS plus fast-food, full access (Case 4A)						
Westbound Delaware Route 26 – Left	A (8.7)	A (8.8)	B (10.7)	A (8.7)	A (8.8)	B (10.7)
Northbound Site Entrance	C (17.8)	D (28.6)	F (241.9)	C (17.7)	D (28.0)	F (237.3)
2011 with CVS plus fast-food, right-in/right-out access (Case 4B)						
Northbound Site Entrance – right	B (11.8)	B (12.2)	C (19.1)	B (11.7)	B (12.2)	C (18.9)
2011 with CVS plus fast-food, right-in/right-out access (Case 4B) *With Improvement Option 1* [2]						
Northbound Site Entrance – right	n/a	n/a	n/a	B (11.5)	B (11.8)	C (18.0)

[1] For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.
[2] Improvement Option 1 includes a separate right-turn lane on the eastbound approach of Delaware Route 26, as warranted by DelDOT's *Standards and Regulations for Subdivision Streets and State Highway Access*.

Table 4
PEAK HOUR LEVELS OF SERVICE (LOS)
based on Traffic Impact Study for CVS - Ocean View
Report dated October 2009
Prepared by Traffic Concepts, Inc.

Unsignalized Intersection [3] **Two-Way Stop Control (T-intersection)**	**LOS per TIS**			**LOS per McCormick Taylor**		
West Avenue & Site Entrance	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2011 with CVS (Case 3A)						
Eastbound Site Entrance	A (8.8)	A (9.3)	A (9.3)	A (8.8)	A (9.2)	A (9.3)
Northbound West Avenue – Left	A (7.4)	A (7.5)	A (7.5)	A (7.3)	A (7.5)	A (7.4)
2011 with CVS (Case 3B)						
Eastbound Site Entrance	A (9.3)	B (10.2)	B (10.4)	A (9.3)	B (10.1)	B (10.3)
Northbound West Avenue – Left	A (7.4)	A (7.6)	A (7.5)	A (7.3)	A (7.5)	A (7.5)
2011 with CVS (Case 3B) *With Improvement Option 1* [4]						
Eastbound Site Entrance	n/a	n/a	n/a	A (9.2)	B (10.0+)	B (10.3)
Northbound West Avenue – Left	n/a	n/a	n/a	A (7.3)	A (7.5)	A (7.5)
2011 with CVS plus fast-food (Case 4A)						
Eastbound Site Entrance	A (9.1)	A (9.4)	A (9.7)	A (9.0)	A (9.4)	A (9.6)
Northbound West Avenue – Left	A (7.4)	A (7.5)	A (7.5)	A (7.4)	A (7.5)	A (7.5)
2011 with CVS plus fast-food (Case 4B)						
Eastbound Site Entrance	B (10.3)	B (11.0)	B (12.1)	B (10.3)	B (10.9)	B (12.0)
Northbound West Avenue – Left	A (7.5)	A (7.7)	A (7.7)	A (7.5)	A (7.6)	A (7.7)
2011 with CVS plus fast-food (Case 4B) *With Improvement Option 1* [4]						
Eastbound Site Entrance	n/a	n/a	n/a	B (10.0+)	B (10.6)	B (11.5)
Northbound West Avenue – Left	n/a	n/a	n/a	A (7.5)	A (7.6)	A (7.7)

[3] For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.
[4] Improvement Option 1 includes a separate right-turn lane on the southbound approach of West Avenue and a separate left-turn lane on the northbound approach of West Avenue, as warranted by DelDOT's *Standards and Regulations for Subdivision Streets and State Highway Access*.

Table 5
PEAK HOUR LEVELS OF SERVICE (LOS)
based on Traffic Impact Study for CVS - Ocean View
Report dated October 2009
Prepared by Traffic Concepts, Inc.

Signalized Intersection [5]	**LOS per TIS**			**LOS per McCormick Taylor**		
Delaware Route 26 & West Avenue	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2009 Existing (Case 1)	B (0.40)	B (0.45)	B (0.64)	B (0.46)	B (0.52)	C (0.70)
2011 without CVS (Case 2)	B (0.42)	B (0.48)	B (0.67)	B (0.43)	B (0.52)	C (0.71)
2011 with CVS (Case 3A)	B (0.42)	B (0.49)	B (0.68)	B (0.43)	B (0.52)	C (0.71)
2011 with CVS (Case 3B)	B (0.43)	B (0.51)	C (0.70)	B (0.43)	B (0.57)	C (0.75)
2011 with CVS plus fast-food (Case 4A)	B (0.44)	B (0.50)	C (0.70)	B (0.44)	B (0.53)	C (0.73)
2011 with CVS plus fast-food (Case 4B)	B (0.48)	B (0.54)	C (0.77)	B (0.48)	B (0.64)	D (0.91)

[5] For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.

Table 6
PEAK HOUR LEVELS OF SERVICE (LOS)
based on Traffic Impact Study for CVS - Ocean View
Report dated October 2009
Prepared by Traffic Concepts, Inc.

Signalized Intersection [6]	**LOS per TIS**			**LOS per McCormick Taylor**		
Delaware Route 26 & Central Avenue	Weekday AM	Weekday PM	Saturday Mid-Day	Weekday AM	Weekday PM	Saturday Mid-Day
2009 Existing (Case 1)	C (0.54)	C (0.70)	F (0.98)	C (0.59)	D (0.83)	D (0.93)
2011 without CVS (Case 2)	C (0.56)	D (0.73)	F (1.01)	C (0.57)	D (0.82)	D (0.94)
2011 with CVS (Case 3A/3B)	C (0.57)	D (0.75)	F (1.02)	C (0.58)	D (0.83)	E (0.97)
2011 with CVS (Case 3A/3B) *With DelDOT Improvements* [7]	n/a	n/a	n/a	C (0.51)	C (0.75)	C (0.77)
2011 with CVS plus fast-food (Case 4A/4B)	C (0.58)	D (0.76)	F (1.05)	C (0.61)	D (0.85)	F (1.02)
2011 with CVS plus fast-food (Case 4A/4B) *With DelDOT Improvements* [7]	n/a	n/a	n/a	C (0.53)	C (0.75)	D (0.78)

[6] For unsignalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, those numbers are X-critical, a composite volume-to-capacity ratio.
[7] DelDOT Improvements (State Contract No. 24-112-10) include realigning Central Avenue, adding a separate right-turn lane on the westbound approach of Delaware Route 26, and adding separate left and right-turn lanes on the northbound and southbound approaches of Central Avenue.