

**DEPARTMENT OF TRANSPORTATION
DIVISION OF PLANNING AND POLICY**

Statutory Authority: 17 Delaware Code, Sections 131, 146 and 508 (17 **Del.C.** §§131, 146 & 508)
2 **DE Admin. Code** 2309

FINAL

REGULATORY IMPLEMENTING ORDER

2309 Standards and Regulations for Subdivision Streets and State Highway Access

1. Summary of the Evidence and Information Submitted

The Department of Transportation sought to adopt significant general revisions to its existing regulations regarding subdivision streets and state highway access, to broaden the title of these regulations to “Development Coordination Manual,” and make several other changes.

The draft regulations were first published at 17 **DE Reg.** 1055 (05/01/2014), and written comments were sought. In addition, DelDOT held three public hearings regarding the proposed regulations, the notice for which appeared in 17 **DE Reg.** 1204 (06/01/14). These hearings were conducted on June 9, June 16, and June 23, 2014, in Kent, Sussex, and New Castle Counties respectively.

Based on the comments received, as well as additional review and input within the Department, DelDOT then sought additional comments regarding substantive changes made in the draft regulations issued May 1, 2014. The regulations were re-proposed and re-published for comment at 18 **DE Reg.** 455 (12/01/2014).

The Department received further comments from different sources, including additional review by its own staff. The comments received led to several non-substantive changes in the proposed regulations, detailed in the accompanying matrix, incorporated by reference into this Order.

2. Findings of Fact

The Secretary finds that it is appropriate to amend the existing regulations as proposed and amended as discussed in the accompanying matrix.

3. Decision to Amend the Regulations

For the foregoing reasons, the Secretary concludes that it is appropriate to amend the existing Standards and Regulations for Subdivision Streets and State Highway Access, by renaming the Regulations as the Development Coordination Manual, and further by adopting the general revisions to those regulations as described herein.

4. Text and Citation

The text of 2 **DE Admin. Code** 2309 shall be in the form attached as Exhibit “A”.

5. Effective Date of Order

The effective date of this Order shall be ten (10) days from the date this Order is published in the Delaware *Register of Regulations*.

IT IS SO ORDERED THIS 11TH DAY OF FEBRUARY, 2015.

Jennifer L. Cohan, Secretary
Department of Transportation

No.	By	Section	Comment	Response
1	D.J. Hughes	P.5 Review Fees	TIS Review Fee has been pending since 2007. It should either be brought to a vote by the general assembly or removed. DelDOT responded to this previous comment that this was in the process. Hopefully, something is occurring either way.	Thank you for the comment and we hope to bring it to a vote this year. There was not support for any new fees in the past election year.

2	D.J. Hughes	P.6 and P.7	Thank you for adding LONC eligibility for projects over 200 ADT. However, the 3-year limit appears inconsistent with, and may be in conflict with, Title 17 Subsection 146 Access to state-maintained highways (d) which states: "For purposes of this section whenever the use to which a property is being put is changed such that there will be a significant alteration in the character, flow, or volume of traffic, as determined within the sole discretion of the Department, a new permit shall be required." There is no mention of references to time.	We established a time frame such that a business would get credit for recently operating and therefore be included in traffic counts in the area. If a large business is vacant for a period of time, it may not be reflected in traffic counts and analysis to accurately determine the level of service at an intersection. We decided on 3 years as a reasonable amount of time before the data gets old.
3	D.J. Hughes	P.8 Definitions	Thank you for adding the Travel Demand Model.	Noted.
4	D.J. Hughes	Section 1.1 Purpose	The last paragraph at bottom of Page 1-2 notes: "All new access permitting and other access design decisions shall meet the design standards in this chapter". Suggest changing shall to should as often site constraints do not lend the ideal conditions the standards are often intended for.	We believe that within the standards there is flexibility. That is if the standard provides for flexibility then you can still meet that standard. We will leave the language as proposed.
5	D.J. Hughes	Figure 1.1-a	Seems appropriate for say New Castle County but not Sussex County. Local streets are shown more as urban streets whereas Sussex has an expansive local roadway network.	The graphic is intended to show an overview of the different types of classifications and is not specific to Delaware or any particular County.
6	D.J. Hughes	Section 1.2.1	Is this intended for when a parcel is being subdivided and sold to others? Otherwise, what is meant by original property owner? If addressing separately owned adjacent commercial properties, should the section reference the property that develops first?	The original owner is the first owner to develop. We will make the change.

7	D.J. Hughes	Section 1.3	<p>Signalized Access Requirements. Traffic Signal Justification Study requirements being detailed are a welcome addition to the regulations. <i>The concern is the potential challenges in maintaining the existing bandwidth while also accommodating minimum pedestrian green times for the side streets. What if existing signals do not accommodate minimum pedestrian green times? Will maintaining existing bandwidth be feasible?</i> It is suggested to revise the word “shall” to “should” with respect to signal installation and the bandwidth requirements. There may be cases where the existing bandwidth perhaps cannot be maintained, but signalization is still the best option. For example, restricting movements at the site access to right turns could “flood out” an adjacent signalized intersection resulting in reduced bandwidth, perhaps more so than if a new signal were installed. The proposed King Property in Camden comes to mind as an example of that potential situation.</p>	We will revise to say should.
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8	D.J. Hughes	Section 1.5 Arterials	<p>Private access should not be restricted to only the lower classification road. DeIDOT has agreed on multiple occasions that right-turn access for corner parcels on arterials is a safe alternative and in some cases more safe than prohibiting all access along the arterial. Implementing the regulations as written will not allow any access for corner parcels along US 13, US 113, US 9, US 301, SR 1, SR 2, SR 4, SR 6, SR 7, SR 8, SR 10, SR 10A, SR 12, SR 14, SR 15, SR 16, SR 18, SR 20, SR 37, SR 48, SR 52, SR 71, SR 202, SR 273, SR 299, SR 300, SR 404, Clapham Road, Carpenter Bridge Road, etc.</p> <p>Many corner parcels need at least a right-in to function as safely and efficiently as possible. Access on the mainline is vital for corner parcel site access and often provides a safer option than funneling all traffic through a single access on the side street that may not be located an ideal distance from the mainline. Not allowing such access would be detrimental to corner parcels throughout the State, discourages businesses from locating on corner parcels without proper access, and is detrimental to economic development initiatives within the State of Delaware. Many examples can be found up and down US 13, US 113, and SR1. That option should still be readily available for corner parcels if access can be safely permitted. The character of the area and not simply the classification of the roadway should also be considered. While the DeIDOT response to this comment previously stated the intent is to explain access along the arterial is a less desirable option, the text reads as if the option is a last resort. Often times, access to the arterial is essential for site circulation purposes.</p>	<p>We stand by our previous response. It is written in this way to explain that access on the arterial is the less desirable option but can be an acceptable option if the access from the lower classification roadway is not reasonable.</p>
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9	D.J. Hughes	Section 1.6.2 Collectors	Design Standards notes "all collector roadways" and references 35 mph to 45 mph speeds. It is noted that there are many collector roadways within 25 mph speed zones that it would not make any sense to be designed for 40 mph or greater speeds. DelDOT should consider acknowledging that. <i>DelDOT responded to the previous comment stating text would be added regarding 25 mph speed zones in municipalities but that does not appear to have occurred. Please consider doing so.</i>	We will add text for 25 mph.
10	D.J. Hughes	Section 2.2 Traffic Impact Studies	First paragraph mentions withholding a LONOR. Suggest revising text to: "including meeting all requirements for issuance of a Letter of No Objection to Recordation." That removes the negative connotation but implies the letter will not be issued, i.e. withheld until all requirements for the LONOR are met.	The suggested wording change does not make sense to us. However, if the concern is with the tone of the paragraph, we will delete the words "or withholding".
11	D.J. Hughes	Section 2.2.1.3 Study Costs	Suggest revising last phrase after or to: "as calculated per the Area-Wide Study Fee." Often, there may not be an actual study as referenced.	We agree with and will make this change. We will delete the last clause, beginning with "or".
12	D.J. Hughes	Section 2.2.1.5 Requirement of a New TIS	The term significantly is too subjective with respect to the change. Is there a certain percentage change in traffic that is significant, say more than 10%? Is there a certain time period in mind? Or is LOS referenced? Traffic could increase without impacting LOS. In the first sentence of paragraph two, suggesting replacing "necessitates a new or amended record plan" with "increases the traffic by more than 500 ADT or 50 peak hour trips." A record plan amendment that does not involve an increase in traffic should not invalidate a TIS or the corresponding improvements.	Given the variety of ways in which conditions in a study area could change, we believe the current wording in the first paragraph is sufficient. Note that this paragraph has been in effect since April 2013 without incident. Regarding the second paragraph, because a recorded plan can remain unbuilt for many years, as DelDOT standards continue to change, it is important that DelDOT have an opportunity to revisit previous approvals when plans are revised, even when the expected traffic is not proposed to increase.

13	D.J. Hughes	Section 2.2 Traffic Impact Studies	<p>Last sentence of 1st paragraph is very misleading and factually incorrect based on numerous years of experience working for DeIDOT and the private sector. "Direct requirements by DeIDOT typically are limited to the location and design of the development access." The sentence should be removed in its entirety and brings into question the purpose of a TIS if improvements are limited to the site access.</p> <p>DeIDOT responded to this previous comment and added language claiming to clarify the statement. I do not see any clarity. I re-iterate, based on years of experience with numerous projects TIS recommendations often are not limited to the location and design of the development access. Most TIS to the contrary include some level of off-site improvements not at the site access. DeIDOT will withhold an entrance approval for an off-site improvement or contribution and can do the same with an entrance permit. The explanation appears to imply the local jurisdictions require off-site improvements, which is far from the truth in Sussex County especially. DeIDOT requires off-site improvements as part of a TIS per its own standards irrespective of local requirements. DeIDOT will accommodate local requirements at the request of the local jurisdiction, but DeIDOT controls the off-site recommendations and the review that leads to them.</p>	<p>Requirements by DeIDOT can be divided into direct requirements and indirect requirements. Direct requirements are things required by DeIDOT to obtain an approval issued by DeIDOT. As the regulation states, such requirements are typically limited to the location and design of the development access. Indirect requirements are things required by DeIDOT to obtain a Letter of No Objection or No Contention that in turn is used to obtain an approval issued by the local government. As Mr. Hughes says, TIS recommendations often include off-site improvements.</p> <p>Mr. Hughes states that it is "far from the truth" that local jurisdictions require off-site improvements, but in requiring a Letter of No Objection to Recordation and in recording plans with notes that DeIDOT asks to have placed on those plans pertaining to off-site improvements, local jurisdictions are effectively doing just that.</p> <p>We acknowledge that most local jurisdictions in Delaware lack the technical expertise to address transportation themselves, the City of Wilmington being the chief exception, and that Sussex County, in particular, takes a relatively passive role with regard to transportation, but without the support of those local jurisdictions, DeIDOT would be extremely limited in what we could require. We see no reason to further revise this part of the regulation.</p>
14	D.J. Hughes	Section 2.2.2.1.A.1	<p>Suggest deleting first sentence and word "subsequently" from 2nd sentence. After the 2nd "shall", suggest replacing text with "determine if deductions beyond the site entrance are appropriate. If so, warrants shall be based upon external primary trips."</p>	<p>We accept what we believe to be the intent of the comment and will change the subject section to read as follows: If an Applicant provides information regarding internal capture and/or pass-by trips, DeIDOT shall evaluate the information submitted and determine what, if any, reductions in site traffic beyond the site entrance are appropriate. If so, warrants shall be based on the reduced traffic.</p>

15	D.J. Hughes	Section 2.2.2.2 Area Wide Study Fee	<p>The trip generation cap is too restrictive and should be eliminated. There have been and will be cases where it is beneficial to all parties to implement the use of the Area-Wide Study Fee regardless of any trip limit. Osprey Point is an example. DelDOT should acknowledge that often there is no actual study or planned future study the fee is applied to. Sometimes, the fee is simply paid so the development can move forward without the time a TIS takes to complete.</p> <p>Often developers are leery of paying the fee because of potentially obligating themselves to unknown improvements and costs. Once the fee is paid and the project has proceeded significantly toward approvals, receiving requirements at the last minute can potentially kill a project. A proposed Popeye's at US Route 40 and Delaware Route 72 is a good example of that almost occurring. While determining required off-site improvements at the time the AWS Fee is agreed to is ideal, it is suggested a timeframe be implemented to determine the off-site improvements can be required. Because it can take a significant amount of time to obtain a LONOR, perhaps determining any off-site requirements as part of the 1st round of comments may be acceptable. There needs to be a reasonable cut-off point for the developer to know what they are agreeing to.</p>	<p>We disagree that the cap is should be eliminated. The intent of the fee is to provide an expedited process for relatively small developments while still holding them accountable for their traffic impacts. There is necessarily some size above which those impacts should be examined in detail. In considering future changes to the Manual we will entertain discussion as to whether the cap should be raised.</p> <p>While we have accepted Osprey Point as a case in which enough previous work had been done that a TIS is not necessary, we did not reach that conclusion lightly and we believe such cases will continue to be rare.</p> <p>We hereby acknowledge that often there is no actual study or planned future study to which the Area Wide Study Fee is applied. Funds collected are accumulated by County and are available for use in area studies when those studies are done. We further acknowledge that sometimes, perhaps often, the fee is simply paid so the development can move forward without the time a TIS takes to complete. We do not plan to add these statements to the Manual.</p> <p>We appreciate that developers are concerned about the possibility of obligating themselves to unknown improvements and costs and DelDOT staff does try to identify those improvements and costs for them early in the process. We would disagree that the proposed Popeye's restaurant that Mr. Hughes cites is a good example in the sense of being typical. It is an example of an occurrence that we try to avoid and that we think is relatively rare. We will continue to look for ways to bring more certainty to the development process but we are making no changes to this part of the Manual now.</p>
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16	D.J. Hughes	Section 2.2.2.4	How many TIDs have been developed and is there funding to develop any/more? Is there any State funding for the massive data collection required to develop a TID and determine phased improvements?	Presently there are two TIDs in operation, Westown in Middletown and the Southern New Castle County TID in the area between US Route 13 and Delaware Route 71 and between the C&D Canal and Marl Pit Road. A third TID, the US Route 13/Bay Road Corridor TID is under development in Dover. This is the first TID that will be developed in accordance with DelDOT's current regulations and thus far most of the work done to create it has been done with State funds. While some commitment will be necessary from local governments to provide land use forecasts, we anticipate providing most of the funding needed to create TIDs. Yes, State funding is available.
17	D.J. Hughes	Section 2.2.3.1.A&B	The Travel Demand Model (TDM) required by DelDOT for trip distribution in order to determine the required scope of work needs to be mentioned in these sections. Briefly the regulations should at least note the TDM trip distribution should be requested in conjunction with the scoping meeting request and that the scoping meeting cannot occur until the trip distribution is received. We believe separating the TDM trip distribution request and the Scoping Meeting Request is warranted. After receiving the TDM trip distribution, the developer's engineer can provide the developer with significantly more information for a potential site evaluation that typically occurs (or used to) prior to requesting a TIS Scoping Meeting. The developer and their engineer can discuss options such as the TIS versus Area Wide Study Fee in lieu of and whether auxiliary lanes are required in advance of any meeting with DelDOT. We believe it can make the DelDOT Pre-Submittal Meeting and/or TIS Scoping Meeting more efficient and effective for all.	<p>We agree that it would be helpful to include mention of the TDM trip distribution in these sections and also in Section 2.2.3.2, but we do not see it as essential. Accordingly we will not make these changes now.</p> <p>Engineers are welcome to request TDM trip distributions in advance of Scoping Meeting Requests and we will honor those advance requests as time permits.</p>

18	D.J. Hughes	Section 2.2.4.1.H & I	Suggest adding “Existing and” to beginning of sentence. Also, it is suggested that another letter be added noting discussion of a Traffic Signal Justification Study if relevant.	<p>The lettered items in Section 2.2.4.1 outline the contents of the Scoping Meeting Request Form, which is Appendix O in the Manual. We find Section 2.2.4.1 to be sufficient as written.</p> <p>Appendices are not subject to the same public notice requirements as the Manual itself and can be modified readily. We will consider making the recommended changes in Appendix O.</p>
19	D.J. Hughes	Section 2.2.4.2.2 Intersections and Roadway Segments to be Studied	<p>1st paragraph adds Type II subdivision streets to be filled in within the area of influence. There is no need for this and it should be removed. Site entrances are designed using 10-year projections and the next development should not have to re-evaluate a recently constructed site access for an adjacent or nearby development. The only likely result is unnecessary intersections included in the study area or perhaps improvements needed to address existing conditions that were not constructed by the other developer. While residents of a nearby development may be concerned about how they will be impacted, including those intersections would be more appropriate if counted within the 3-intersection limit. Skipping them as part of the three-intersection limit creates unnecessarily large study areas and potentially creates an overburden of improvements for a development to proceed.</p>	<p>We disagree. As Mr. Hughes points out, residents of nearby developments may be concerned about how they would be impacted by a proposed development. Recognition that those concerns may be legitimate is our basis for including these streets. We do not include them in the three-intersection limit because typically we would not expect these streets to carry a significant amount of the traffic to or from the subject development.</p>

20	D.J. Hughes	Section 2.2.4.1.2.2 Intersections and Roadway Segments to be Studied	<p>2nd paragraph states: "Further, to the extent that a local government receives requests from the public through their land use approval process that an intersection or other transportation facility be included in a TIS and asks that DeIDOT include that facility in the study, it shall be included..." The scope of study should be based on land use regulation and engineering analysis and not the subjective opinion or emotion of the public, whom may or may not be informed on traffic engineering. We strongly recommend that this language be eliminated. While we understand this most likely came under pressure from a small fraction of the public within the state whom believe they have a right to scope a TIS just as much as the professionals trained to do so, we adamantly disagree. This type of language in a regulation is a slippery slope opening the door wide open for politics to control a scope of work. It has no business within a regulation and there is no need for this regulation. Anyone has the right to pick up the phone, call DeIDOT, and ask DeIDOT to consider something. DeIDOT can take the request under advisement and make a professional decision on whether the request is merited.</p> <p>While DeIDOT previously responded this has not been abused since implemented, DeIDOT has unnecessarily created and almost encouraged the potential for abuse. Don't want the new development next door to start competing with yours or just don't want it at all or want to delay it and drive up costs, wait until the development is far along in the process and then request a TIS scope revision. It could happen per the regulations.</p>	<p>We understand that Mr. Hughes is concerned about the potential for this section to result in late and potentially detrimental changes to the scopes of work for his clients' TIS.</p> <p>However, we find that the requirement that such requests come from the local government, rather directly from the public, provides reasonable assurance against arbitrary additions to the scope of study. Both they and we have an obligation to satisfy applicants' rights to due process. We will meet our obligation. No changes to the Manual are proposed in this regard.</p>
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21	D.J. Hughes	Section 2.2.4.2.2.F	<p>Removes State-maintained roads ending in letters from the area of influence except where 50 or more peak site trips use the road. Isn't that the same as other intersections? You only study an intersection if it has 50 or more peak site trips. It is also noted some roads ending in letters carry significant traffic. DelDOT responded to the comment and I did not follow the explanation. I do not understand the significance of whether a letter is at the end of the 3-digit maintenance number. Seems the amount of existing and proposed traffic is more relevant than the label.</p>	<p>No, it is not the same. To provide an example, beginning at the proposed development, Road 001, carrying 200 peak hour site trips, intersects Road 002 but none of the site trips are expected to turn on or off there. The intersection of Roads 001 and 002 is counted as the first intersection. Continuing along Road 001 to Road 003A, again none of the site trips are expected to turn on or off there. This intersection is not counted toward the three- intersection limit. If it is not signalized and is not requested by the local government, it is not included in the study. Continuing along Road 001 to Road 004A, 56 peak hour site trips are expected to turn on or off there. The intersection of Roads 001 and 004A is counted as the second intersection. Continue along both roads to find the third intersection in each direction.</p> <p>Most, though not all, roads that have a letter at the end of the three-digit maintenance number are extremely low in volume and have little potential for traffic growth. Some of them are not even routinely mapped. The intent of this section is to help provide rational study areas, excluding trivial intersections and including ones that matter.</p>
22	D.J. Hughes	Section 2.2.8.5.C.19	<p>Requiring developers to do saturated flow counts could be excessive depending on the locations. We conducted such a count along Delaware Route 24 approaching the beach area and the end of the queue was very fluid and required constant movement by the demand counter. While the counts will allow more proper analysis results, there could be significant additional expense added to a TIS in an oversaturated area. The total queue to be recorded referenced should be specified as the queue at the end of the period. Previously these conditions were typically noted although not properly analyzed. Whether the value of the demand counts is worth the effort, i.e. did we learn anything new, may be determined moving forward.</p>	<p>We agree that the requirement to count arrival volumes for saturated conditions will require more effort, and therefore more expense, for traffic studies where saturated flow occurs. We find the currently proposed wording of this section adequate. As this is a new practice for Delaware, albeit well-established in other jurisdictions, we will see how well it serves the public and we may revise this aspect of our regulations in the future.</p>

23	D.J. Hughes	Section 2.2.8.7 Trip Distribution	<p>DeIDOT taking responsibility for determining site trip distribution is incomplete as written. Why is trip distribution only provided by DeIDOT Travel Demand Model during the weekday p.m. peak hour? DeIDOT previously responded “the weekday p.m. peak hour distribution is used in establishing the study area.” That is not correct and inconsistent with Section 2.2.4.2.2 Intersection and Roadway Segments to be Studied, which states: “including any intersection or roadway segment that would carry projected site traffic of at least to vehicles per hour (during any peak hour) as determined by DeIDOT using a regional adopted (changing now to “an adopted regional”) travel demand model”. While it may be reasonable to start with the highest peak hour, varying trip distributions could still result in different Areas of Influences based upon different entering and exiting volumes assigned based on the varying distributions. It seems based upon the regulations it is essential to make sure the weekday a.m. peak hour and Saturday peak hour do not require additional intersections than the weekday p.m. peak hour.</p> <p>While it may be reasonable to assume the same distribution for morning and evening weekday peak hours, the same may not be true for the Saturday peak hour, especially in areas impacted by summer traffic. The DeIDOT Traffic Generation Diagram requires the highest two (2) peak hours be shown. It seems the trip distribution should also be provided for those peak hours as well.</p>	<p>Our previous statement that “the weekday p.m. peak hour trip distribution is used in establishing the study area” is factual in that we do use it in establishing study areas. To do so is correct and wholly consistent with Section 2.2.4.2.2 for residential and office developments in most parts of the State.</p> <p>In resort areas and for shopping centers in retail corridors, we acknowledge that a more rigorous approach may be necessary to satisfy Section 2.2.4.2. While we may make further use of the travel demand model in such cases, we do not see a need to detail that in the Manual now.</p>
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24	D.J. Hughes	Section 2.2.8.11.3.C Geometric Design, Operational and Circulation Improvements	Item C is recommended for removal. Examining the need for auxiliary lanes at all intersection[s] included within a study is overkill and will likely lead to identification of multiple and burdensome improvements (i.e. left-turn lanes on the major street at every intersection in the study area) that cannot feasibly be constructed by a developer. Existing conditions may often indicate a left-turn lane on a major street is warranted irrespective of any development. Those conditions may have existed for a decade or more without being addressed by DeIDOT. If crash data does not indicate there is a problem, the improvement may be unnecessary in practice and only need on paper. If DeIDOT were tasked with evaluating and improving all existing intersections and existing conditions as they are asking developers to do, an endless list of projects and an endless budget shortfall (more so than now) would result.	It is to be expected that Item C will likely lead to the identification of a need for some additional left and right turn lanes. If it did not, it's inclusion in the Manual would serve no purpose. However, Items C and E together are expected to serve an important purpose in identifying needed improvements that otherwise would not be identified in the TIS process. We believe that Mr. Hughes overstates the effect that these items will have on most land developments, but regardless we will not remove or change these items now.
25	D.J. Hughes	Section 2.2.8.11.3.E Auxiliary Lanes beyond site entrance	The need for this subsection is not understood or known. It is recommended that E. be removed in its entirety. Considering the intersections are off-site intersections, capacity and LOS analysis along with crash data analysis should be sufficient for purposes of determining whether developer improvements are warranted. Evaluating each off-site intersection of auxiliary lanes will lead to burdensome improvements that cannot all be undertaken by a developer. The "need" may be an existing need irrespective of the development that has not been addressed by DeIDOT. The result may be DeIDOT holding developers to a higher standard than DeIDOT holds itself. The development traffic may have an insignificant impact but the developer will be left building improvements DeIDOT chose not to do.	The purpose of Item E is to specify what analyses are needed with regard to the need for auxiliary lanes at off-site intersections. We reject Mr. Hughes position that capacity, LOS and crash analysis should be sufficient. Capacity and LOS analysis of unsignalized major street turns does not adequately reflect the presence or absence of turn lanes. Crash data necessarily accounts only for existing traffic. See response to comment on Section 2.2.8.11.3.C.

26	D.J. Hughes	Section 2.5.2 Agreements – Off-Site Improvement Agreement	Thank you for revising the language similar to as suggested. However, we disagree that whether federal funding is involved is irrelevant. If a federally funded project exists, the developer cost share should be based upon the State Share (typically 10% or 20%) of the construction costs. That has been typical DelDOT practice as recently as 2014. Federally funded projects are initiated to address existing conditions needs irrespective of future development and that are not the responsibility of private developers to fix. The developer contribution should be based on the State share and DelDOT should be thankful they are receiving developer funds to help address existing conditions and reduce State costs.	Thank you for your comments. We note that this section does not mention federal funding.
27	D.J. Hughes	Section 2.5.4.5.F	DelDOT deleted item F, which is great, but forgot [to] delete the example for it. Please delete the example.	Thank you for alerting us to this error. We will delete the example.

28	D.J. Hughes	Section 2.5.4.5.G	<p>Why is this necessary? Corner parcels with restricted access do not receive the benefit of direct access to the highway. This item will essentially eliminate any chance for corner parcels with restricted access on the mainline to contribute to the revolving fund. To encourage more participation in the fund, DelDOT should remove this item in its entirety or corner parcels will basically no longer have this option and would be better [served] to enter a traditional signal agreement.</p> <p>Uses with high pass-by traffic like to locate along corners along arterials and typically have at least one restricted access. Sometimes the “minor” street they access is not so minor and carries [a] significant amount of traffic . Delaware Route 14 in Milford, Delaware Route 300 in Smyrna, Delaware Route 12 in Felton, Delaware Route 16 in Ellendale, and Delaware Route 404 are examples just to name a few. There potentially may be signal modifications required as a result of various reasons outside of projected site traffic (i.e. existing conditions) through the intersections and the corner parcel should not be responsible for 100% of the improvements.</p>	<p>This item is necessary to ensure that businesses on corner parcels are assessed an amount of the signal costs reasonably related to the benefit they derive from the signals that serve them.</p> <p>That said, we recognize that this item needs to be modified. Most basically, it states that “parts D and F above apply rather than part G,” but we are now eliminating the part F that was referenced there and the subject item has become “part G.” Perhaps more importantly, it seems that the Mr. Hughes is misreading the intent of this item and that others could do so.</p> <p>To make it more clear we will correct the item to read as follows:</p> <p>Where a development depends on a nearby intersection for access, e.g. a corner parcel, <u>(including parcels that have frontage on two roads that intersect at an existing signal)</u>, that has full access on a minor road and limited or no access on a major road, that intersection shall be treated, for purposes of cost allocation, as a site access, i.e. parts D and F above apply rather than part G <u>through movements on the major road shall be excluded from the calculation shown in part F.</u></p>
29	D.J. Hughes	Section 3.2.6	<p>In a recent meeting at DelDOT, DelDOT noted they were no longer in the practice of acquiring ROW reservations. I presume that is at least in part due to the SR 1 Grid Study reservations that did not pan out and created issues. Has the DelDOT position changed?</p>	<p>Reservations are not currently used as often as they once were, but we will leave the Manual as is.</p>
30	D.J. Hughes	Section 3.4 Letter of No Contention (LONC):	<p>Thank you for removing the 200 ADT trip limit as requested.</p>	<p>Noted.</p>
31	D.J. Hughes	Section 3.5.3.1.B.4	<p>This notes a developer may have to build a local or higher order road through the site or in part. Will there be other compensation or considerations the developer receives for building a new State road? If not, depending on the size of the project and various factors, the requirement could deem a development infeasible.</p>	<p>The list of requirements would be addressed through pre-application meetings and the traffic impact study. Often building new roads or making connections can mitigate the traffic from the development which would be outlined in the TIS.</p>

32	D.J. Hughes	Section 3.5.4.5.B Roadway Crossing by Bicycles and Pedestrians	While the requirement is for crosswalks at all signalized intersections, that is typically a decision made by traffic on a case by case basis. Is that no longer true?	The decision is up to the traffic section; however the applicant should expect crosswalks on all legs of the intersection.
33	D.J. Hughes	Section 3.5.6 Connectivity	<p>Please clarify that this requirement only applies to developments with State-maintained streets. The beginning of Section 3.5, 1st sentence, implies the Connectivity regulations apply to all developments seeking access to State-maintained streets. However, I do not believe DeIDOT has that authority in cases such as subdivisions with private streets in Sussex County.</p> <p>The development I live in is a good example. In those cases, the authority for requiring connectivity lies with Sussex County and not DeIDOT.</p> <p>The requirement seems to lack flexibility and may not be feasible or even desirable for all projects due to a variety of reasons, especially in areas of rural Sussex County. DeIDOT previously responded noting the hindrance listed, but the hindrances listed do not address the point. The requirement seems to implement an urban grid system that could negatively alter the look and feel of rural developments and does not seem appropriate to be implemented statewide. For example, Sussex County approved the Redden Ridge development. However, it falls short of the connectivity requirement and would require the removal of at least 2 lots and the addition of at least 2 stub streets to meet the connectivity ratio requirement. The development I live in also likely would not meet the requirement, and I am glad about that. While each case is different, the Connectivity requirement will likely lead to cut-through traffic and safety issues that would not exist without the requirement. Low-traffic, low speed community streets could become thoroughfares with increased speeds, drivers not vested in the community, and decreased public safety.</p>	<p>For subdivisions with private streets, the connectivity requirements regarding the connectivity ratio will be recommendations. We will make this change.</p> <p>Flexibility is provided in section 3.5.8 Connectivity – Hindrances</p> <p>We will change the language to read:</p> <p>3.5 CONNECTIVITY This section provides connectivity requirements for all development projects having access to state roads or proposing DeIDOT maintained public roads.</p> <p>Private or municipal streets should follow the local land use agency's requirements for connectivity.</p>

34	D.J. Hughes	Section 5.2.9 Auxiliary Lanes	<p>The projected 10-year volumes required by DeIDOT conflict with known Delaware and national traffic trends. DeIDOT growth factors for each Traffic Pattern Group (TPG) have shown flat or decreasing traffic volumes since about 2008 yet DeIDOT requires adding 16% traffic on top of existing volumes resulting in ultra conservative design volumes. An annual growth factor of 1.0% is suggested resulting in a more realistic 10-year factor of 10.5%. While DeIDOT previously responded the growth rate is based on historical data, it is highly unlikely the historical data is the same for each traffic pattern group and theoretically as DeIDOT improves multi-modal facilities the vehicular trips should not be increasing at as high rates as in the past.</p>	We will leave the growth rate as is. The theory is based on taking balanced long term historical data vs taking data from individual up/downswings. Time will tell if the last few years are a solid trend or a temporary dip due to the economy is.
35	D.J. Hughes	Section 5.2.9.1 Right-Turn Lane	<p>States a “five foot bike lane shall be provided”. Consistent with DeIDOT design practices, “shall” must be changed to “should”. DeIDOT routinely designs and constructs four foot bike lanes and the developer should and does have the option as well. Five feet is recommended but only four feet is required. The regulations need to reflect that. It is noted in the text that tables provided in Figures 5.2.9.1.a & b are for info only but the figures themselves do not note that. It is suggested notes be added to each figure referencing the Auxiliary Lane Worksheet required by DeIDOT.</p>	We will leave the text as written. Five feet is the standard with four feet being the absolute minimum that could be allowed based on many factors.
36	D.J. Hughes	Section 5.2.9.2 Bypass Lane	<p>Suggest adding a reference to the Auxiliary Lane Worksheet similar to Section 5.2.9.1. It is noted in the text that table provided in Figure 5.2.9.2-a is for info only but the figure does not note that. It is suggested a note be added to the figure referencing the Auxiliary Lane Worksheet required by DeIDOT.</p>	We will add “in accordance with DeIDOT’s Auxiliary Lane Worksheet” to the sentence: An intersection shall first be considered for a bypass lane using the warrants <i>in accordance with DeIDOT’s Auxiliary Lane Worksheet</i> and outlined in Figure 5.2.9.2-a. Bypass lanes shall be designed in accordance with Figure 5.2.9.2-b.

37	D.J. Hughes	Section 5.2.9.3 Left-Turn Lane	<p><i>Suggest adding a reference to the Auxiliary Lane Worksheet in 1st paragraph similar to Section 5.2.9.1. The minimum thresholds for requiring left-turn lane volumes should be raised to at least 30 vph for all AADT's.</i></p> <p>Requiring a left-turn for 5 vph (1 left every 12 minutes during peak times) or even 10 vph (1 left every 6 minutes during peak times) or 20 vph (1 left every 3 minutes during peak times) is simply unnecessary and creates burdensome improvements with little benefit to the traveling public. The Auxiliary Lane Worksheet that implements the parameters often requires left turn lanes when the <i>AASHTO Green Book</i> and the <i>DeIDOT Road Design Manual</i> suggest a left-turn lane is not necessary. That should not happen and the engineer should be allowed to reference official publications used by DeIDOT when the worksheet is in conflict with them. <i>It is also noted the Auxiliary Lane Worksheet does not consider the advancing volumes or the % left turns in the advancing volumes. Both of those are standard parameters when determining left-turn lane warrants that appear to be ignored by the worksheet.</i></p>	<p>Response:</p> <p>The current DeIDOT Auxiliary Lane Worksheet provides Left-Turn Lane installation recommendations based on the Transportation Research Record (TRR) 1500, Lengths of Left-Turn Lanes at Unsignalized Intersections. This document was developed and calibrated for the particular conditions of the State of Delaware by Dr. Shinya Kikuchi, Dr. Partha Chakroborty, and Mark Luszcz from the University of Delaware.</p> <p>The methodology presented in TRR 1500 has been developed for left-turning vehicle volumes equal or larger than 50 vehicles per hour (vph). Often times left-turning vehicle volumes for low impact developments are less than 50 vph. DeIDOT Auxiliary Lane Worksheet provides direction on how to account for these situations based on a combination of AADT and left-turn volumes by using additional TRB research. The DeIDOT auxiliary lane worksheet uses the opposing volume do determine the left- turn. The ADT information is used to develop the opposing volume.</p>
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			<p>While DeIDOT provided a very detailed response to the previous concerns regarding left-turn lane requirements, we still have concerns based on the results we see in some cases. Additionally, <i>it is noted the listed ranges in the response for when a left-turn lane is warranted differ in the December 2014 regulations that are posted. The response provides four AADT ranges and four left-turn volume ranges while the posted proposed regulations on list three. The highest minimum left-turn volume in the response is also 30 vph where the posted regulations list 20 vph. Lastly with respect to the left-turn lane warrants, if DeIDOT is not revising the <u>DeIDOT Road Design Manual</u> per the more current data, why the need to revise the <u>Development Coordination Manual</u>? It seems they both should be revised simultaneously if DeIDOT is not comfortable with the existing manuals. Have revisions been initiated to the DeIDOT Road Design Manual based upon the same reasoning? If not, why not and when will that occur?</i></p>	<p>The recommendations for low left-turn volumes (less than 50 vph) presented in the Auxiliary Lane Worksheet are based on the NCHRP Report 745 “Left Turn Accommodations at Unsignalized Intersections” which was published in 2013. The NCHRP Report 745 was selected because it is the most recent and comprehensive report that studied left-turn lane warrants at unsignalized intersections. It also takes into account safety, operational efficiency, and construction costs. Current warrants used by many jurisdictions, including the DeIDOT Road Design Manual, are based on former models introduced in research by Harmelink, during the mid-1960s.</p> <p>Note: The previous version of the DeIDOT Road Design Manual is from 2004. The left turn table in that manual was based on the Harmelink methodology, 1967, which is consistent with the AASHTO “A Policy on Geometric Design of Highways and Streets”, Chapter 7. It accounts for the speed, the advancing and opposing volumes, as well as the percentage of left-turn traffic. Overall, the DeIDOT Roadway Design Manual falls short when the left-turn vehicle volumes are low.</p> <p>It should be noted that the DeIDOT spreadsheet gives more flexibility than the NCHRP Report 745 when dealing with low left turn volumes. Based on the results from the methodologies reviewed, we recommend the following change for range of ADT’s and Left-turn volumes for sections S.2.9.3.C:</p> <p>C.1. No left-turn lanes for AADT under 1,500 vpd.</p> <p>C.2-5. Left-turn lanes warranted for the following combinations: AADT: $\geq 1,500$ to $< 2,000$ vpd & Left-turn volume: 30 - 50 vph AADT: $\geq 2,000$ to $< 4,000$ vpd & Left-turn volume: 20 -50 vph AADT: $\geq 4,000$ to $< 6,000$ vpd & Left-turn volume: 10 -50 vph AADT: $\geq 6,000$ & Left-turn volume: 5 -50 vph</p> <p>C.6. For any special cases with very low opposing volumes, DeIDOT’s Subdivision Engineer may waive the requirement of a left turn lane.</p> <p>We will bring up your comments in the next revision of the Road Design Manual.</p>
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38	D.J. Hughes	Appendix B	<p>Appendix B is not included online with the revisions but it is assumed it has not changed. We have commented on numerous occasions about what we feel confident is the misapplication of Appendix B in direct conflict with the legislation and resulting regulations that were passed as part of a valid public process. While we understand the standard response has been orders from the Secretary, there is now a new Secretary whom may take a different position on the apparent previous circumvention and disregard for the required State process and State code. We ask that DeIDOT verify whether Appendix B is appropriate and consistent with State code as currently included.</p> <p>What I found appears clear and straight forward as to what happened. The proposed Section 507 that was later revised as part of the required public process was included in the approved <i>Subdivision Manual</i> at the time instead of the final approved version that became effective on November 1, 2006. Both are attached and labeled clearly. Unless I am missing something or some action was taken after November 1, 2006 revising the Delaware Code, Appendix B needs to be replaced with the final version in Delaware Code not the proposed version. Otherwise, the process appears to have been circumvented.</p> <p>It does not appear there is really anything else to look into besides verifying relevant code unless somebody wants to try to change the code, which would require another public process. That would not seem to make sense since it is clear that for whatever reason, DeIDOT revised the initially drafted code and specifically removed the exclusion of site entrance improvements for a development and specifically added language clearly stating improvements at the entrance to a development are eligible. Yet, DeIDOT continues to publicly state site access points are not eligible. We appreciate a response on this matter.</p>	As stated previously, it is the Secretary's discretion to use Section 507 and they currently do not choose to use it for entrances.
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39	Sarah Keifer, Kent County Planning Dept.	Section 3.5.4.2	Sidewalks and Shared-Use Paths and Sidewalks provides that DeIDOT can require a fee in lieu of construction of a sidewalk or shared use path. Kent County also has requirements for frontage sidewalks. It would be helpful if DeIDOT would agree to not grant construction waivers in favor of a fee without the concurrence of the local government.	We agree that we would not grant construction waivers in favor of a fee without the concurrence of the local government. If the local government required the facility to be built then then the applicant would not have to pay the fee.
40	Sarah Keifer, Kent County Planning Dept.	Section 3.4 introduction	It appears that DeIDOT is still requiring that all plans, including site plans, be recorded. As we've discussed, the County does not require recordation of site plans. Because it is not unusual for site plans to change in the field, forcing re-recordation with each change becomes a burden on the property owner. I suspect it would serve DeIDOT just as well to require the recordation of right-of-way or easement plans separately.	<p>As outlined in Section 3.4, this requirement for Commercial sites is part of obtaining DeIDOT's approval and helps create adequate ROW where lacking. Site Plan recordation (inclusive of ROW dedications and PE's) ensures that the site plan elements are configured correctly with respect to the revised ROW and Easements. This benefit is not achieved when a blank ROW or Easement plan is recorded separately. To achieve this same outcome, the blank ROW or Easement plan would need to be recorded in advance of any Site Plan being created or approved, to ensure that the Boundary used in the site layout matched the ultimate requirements that DeIDOT's regulations have provided.</p> <p>Section 3 Introduction: "The developer shall submit the required information to DeIDOT for review and approval prior to DeIDOT issuing its letter of "No Objection to Recordation" to the local land use agency. The Plan shall be in the format required by the local land use agency supplemented with DeIDOT's requirements as outlined in this chapter. DeIDOT shall require recordation of the Plan regardless of the local land use agency recordation requirement."</p>

41	Kim Wilson, ACEC		<p>Based upon our review, it does not appear that revisions associated with clarification of the record plan process as it relates to commercial development has been adequately addressed. ACEC suggested that this topic be addressed at the onset of the manual revision process. However, it was suggested by DeIDOT that this would be addressed prior to final adoption. ACEC representatives met with DeIDOT in February of 2014 to discuss concerns associated with the current language. In that meeting, agreement was reached that DeIDOT would revise the language associated with commercial development related to the recordation process. Based upon review of the current language, the agreed changes have not been implemented. As a result, ACEC does not support adoption of the proposed Development Coordination Manual.</p>	<p>See the above response to Comment #40. We are committed to continue to discuss this and will work towards a process that meets all of our goals.</p>
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***Please Note: Due to the size of the final regulation it is not being published here. The following links to the several parts of the final regulation are provided below:**

- Preface**
- Chapter 1 Access Standards**
- Chapter 2 Traffic Analysis and Improvements**
- Chapter 3 Record Plan Design**
- Chapter 4 Construction Plans**
- Chapter 5 Design Elements**
- Chapter 6 Construction Administration**
- Chapter 7 Residential Access**
- Chapter 8 Miscellaneous Access Guidelines**

- 13 DE Reg. 1101 (02/01/10)**
- 15 DE Reg. 551 (10/01/11)**
- 16 DE Reg. 1199 (05/01/13)**
- 18 DE Reg. 240 (09/01/14)**
- 18 DE Reg. 709 (03/01/15) (Final)**