



AGENDA
Orange Unified Transportation Board
 April 16, 2014
 7:00 p.m.

You can bring your laptops/tablets if you would like to use them.

Conference Room 004 (Lower Floor) Orange County West Campus
131 West Margaret Lane, Hillsborough

<u>Time</u>	<u>Item</u>	<u>Title</u>
7:00	1.	Call to Order and Roll Call
7:05	2.	Approval of Minutes Minutes from February 19, 2014
7:08	3.	Consideration of Additions to the Agenda
	4.	Regular Agenda
7:10	a.	Board discussion with NCDOT to include the following topics: <ul style="list-style-type: none"> i. Issues with some bike and pedestrian projects within the county (e.g., the quality of the two-foot widening on Dairyland, prioritizing the widening of Old NC 86 at Calvander, and the destruction of road surfaces during the gas line construction on Mt. Sinai and other connecting roads, and opportunities for improved coordination with, or oversight of state contractors during project construction). ii. The status of any state discussions/projects related to the feasibility of using existing triangle region railway infrastructure for commuter rail purposes as part of a multi-modal transportation system. iii. Issues related to private street conversions for acceptance into the state maintained system. iv. Available resources for minor improvements at problem sites/intersections within the county. v. Pedestrian safety concerns on (new) Hwy 86/I-40 bridge overpass. vi. Others topics as raised by the Board. <p>OUTBoard Action: Receive information and participate in discussion.</p>
7:45	b.	Review of selected private road and access standards from the Unified Development Ordinance (UDO) Section 7.8 Access and Roadways <p>OUTBoard Action: Review selected standards and recommend to the BOCC that Planning staff review/revise and develop amendments.</p>
8:25	5.	Staff Update <ul style="list-style-type: none"> a. Safe Routes to School (SRTS) Action Plan <p>OUTBoard Action: Receive update</p>

8:30 6. Board Comments

- a. Chair initiated comment session regarding Board members' thoughts on the following potential topics:
- i. Critical transportation issues for Orange County, now and into the future.
 - ii. The role of the OUTBoard in examining the difficulties in transportation planning brought about by the programmatic fragmentation of current transportation planning and funding.
 - iii. Improved OUTBoard engagement of Orange County residents' transportation concerns.
 - iv. Improving OUTBoard advisory service to the Board of County Commissioners.
 - v. Agenda development.
 - vi. The role of each member of the Board.
 - vii. Meeting format, including presentations and member participation.

OUTBoard Action: Receive comments and participate in discussion.

8:55 7. Upcoming Agenda Items of Interest on Other Regional Transportation Related Board Agendas

OUTBoard Action: Receive information

9:00 8. Adjournment – The OUTBoard's next meeting will be May 21, 2014

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MINUTES
ORANGE UNIFIED TRANSPORTATION BOARD
FEBRUARY 19, 2014

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5 MEMBERS PRESENT: Paul Guthrie, Chapel Hill Township; Alex Castro, Bingham Township; Donald Wollum, Eno
6 Township; Sam Lasris, Cedar Grove Township; Ted Triebel, Little River Township; Amy Cole, Transit Advocate; Gary
7 Saunders, CFE Representative; Andrea Rohrbacher, Planning Board Representative; Brantley Wells, Hillsborough
8 Township Representative;

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10 MEMBERS ABSENT: Pedestrian Access & Safety Advocate - Vacant; Cheeks Township - Vacant; Economic
11 Development Advocate - Vacant

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14 STAFF PRESENT: Abigaile Pittman, Transportation/Land Use Planner; Bret Martin, Transportation Planner; Tina
15 Love, Administrative Assistant II

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18 OTHERS PRESENT: Lance Hendrix, Mobility Manager, Orange County Department on Aging

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21 AGENDA ITEM I: CALL TO ORDER AND ROLL CALL

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24 AGENDA ITEM II: APPROVAL OF MINUTES FOR DECEMBER 18, 2013

25
26 Jeff Charles: I had a couple of minor grammatical word changes that I have given to Tina. They did not change the
27 meaning in any way.

28
29 Paul Guthrie: On line 183, there is an "and includes curb cuts that were never put back in place". I don't remember
30 saying that.

31
32 Tina Love: I will go back and check that.

33
34 The December 18, 2013 OUTBoard Minutes were approved with corrections by consensus.

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37 AGENDA ITEM III: CONSIDERATIONS OF ADDITIONS TO THE AGENDA

38
39 Jeff Charles: I would like to give an update on the Chapel Hill Committees that advise the Town Council; they are
40 creating a much larger transportation board.

41
42 Abigaile Pittman: Can we put that in the section of the upcoming agenda items on other regional transit?

43
44 Jeff Charles: That will be fine.

45
46
47 AGENDA ITEM IV: REGULAR AGENDA

48 Draft OPT System Goals Five-Year Bus Service Expansion Program Recommendations
49 **OUTBoard Action:** To make a recommendation to the Board of County Commissioners
50 (BOCC) on the Draft OPT System Goals Five-Year Bus Service Expansion Program
51 Recommendations

52
53 Abigaile Pittman reviewed the background.

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55 Paul Guthrie: Could we put a footnote on those maps? I think it is important in the long run for your equitable
56 argument and that it is known that it excludes areas in parts of the southwest and southeast county that are not being
57 addressed by Chapel Hill.

58
59 Abigaile Pittman: When you have limited funds you have to choose which area you will start with.

60
61 Paul Guthrie: Let's not forget that those areas in the southwest and southeast are a major county concern but not
62 necessarily under the jurisdiction.

63
64 Jeff Charles: How much money are they projecting to come in? Aren't they spending \$30 million dollars to do the
65 initial research for the light rail system and Orange County's share of that is \$5 to \$8 million dollars? I want to
66 understand the cash flow over that period of time and how much is available for buses.

67
68 Abigaile Pittman: We were going to work on the goals and then get into the program details. *Continued*
69 *presentation.*

70
71 Sam Lasris: In my experience with destinations and services that lots of people are taking public transit are using it
72 to get to other transportation systems.

73
74 Jeff Charles: Have they considered the new development that is supposedly going to overwhelm Pittsboro? All of
75 those people will come through Orange County. They are talking 60,000 people, which is equivalent to what we have
76 in the county.

77
78 Paul Guthrie: I think the short answer is that it is so far on the horizon it hasn't really been calculated in.

79
80 Bret Martin: *Continued presentation.*

81
82 Don Wollum: Is there a mile limit?

83
84 Bret Martin: Not with this. This is rural general public demand response service. There will be buses for 12 to 18
85 passengers.

86
87 Sam Lasris: The destinations are fixed. Where is there a pick-up to get to the RDU airport?

88
89 Bret Martin: One of the connections is the US 70 mid-day route that will continue on to Durham. There will be other
90 routes that connect to where this is going.

91
92 Amy Cole: Is there a route where they can connect to a TTA route? Why do you never include a stop on Eubanks
93 Road where people can connect to a TTA route?

94
95 Bret Martin: Eubanks Road is served by Chapel Hill Transit.

96
97 Amy Cole: My point is that people could connect to the TTA.

98
99 Paul Guthrie: Is there a way to build more on the interlinked places to feed that abundance of transit that you
100 showed on the Chapel Hill-Carrboro planning area?

101
102 Bret Martin: If people are using transit on Eubanks Road, their ultimate destination is not going to be Eubanks Road.

103
104 Gary Saunders: The TTA at Eubanks Road is limited to the CRX and that runs in the morning and afternoon, so
105 there is no mid-day service on Eubanks Road.

106
107 Bret Martin: We are going to a lot of the same destinations but they are not serving the same origins. *(Continued*
108 *presentation).*

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110 Lance Hendrix: Are these fixed stops or a door-to-door service?

111

112 Bret Martin: The concept is for it to be curb-to-curb. My recommendation will be curb-to-curb.

113

114 Alex Castro: These figures are just operating cost?

115

116 Bret Martin: Yes. Capital is not factored into this budget because Triangle Transit is handling it differently. I have
117 been working through the MPO, TARPO and NCDOT to get the necessary capital to make this happen.

118

119 Jeff Charles: What percentage of the sales tax that is being collected annually in 2015 is going to this bus service for
120 Orange County versus our share of the \$6 million dollars for the studies necessary for light rail?

121

122 Bret Martin: Of the amount being made available OPT is getting 12%. How much of that is the total that is coming
123 in? I don't have the budget, but I would estimate 15%.

124

125 Paul Guthrie: You can get a good idea on the first chart by the number of transit miles. I would suggest you send
126 that information via email.

127

128 Jeff Charles: I am going back to the population chart without the students; there are more people in Orange County
129 than Chapel Hill.

130

131 Bret Martin: Part of the revenue is not even sales tax but vehicle registration fees. There is more vehicle registration
132 in unincorporated Orange County than there is in Chapel Hill.

133

134 Ted Triebel: Does the fare-free idea come from the top down?

135

136 Jeff Charles: They are paying for it with the half-cent sales tax.

137

138 Bret Martin: Also, the scale of service being provided costs more to manage than it is worth to collect fares. It also
139 slows down service. The BOCC has leaned in that direction because we are serving transit-dependent populations,
140 which are typically lower income household without vehicles.

141

142 Jeff Charles: Are the expansions limited by the amount of access the county has to the percentage of the half-cent
143 sales tax? Would you be adding more if you were given more money?

144

145 Bret Martin: On Attachment 4, in the far right column a certain amount of money available is noted. In time, more
146 money will be made available.

147

148 Jeff Charles: Because you are collecting more revenue, or the percentage of the revenue that is going to buses is
149 increasing?

150

151 Bret Martin: The latter.

152

153 Jeff Charles: So we have to pay the \$6 million dollar share on the chance that we get federal funding and if we don't
154 because the density is not there to support a light rail system, that \$30 million dollars goes down the drain.

155

156 Paul Guthrie: One of the problems with your analysis is that all transit at some in time needs advanced planning.
157 Under the analysis you just gave, you would not do that until you have the money in your hand ready to build the
158 whole system. Your point is well taken with regard to whether it is an appropriate sharing of funds, but I don't think it
159 is a good idea to say we will never share funds if we have to front-end the cost.

160

161 Jeff Charles: I am not saying that.

162

163 Alex Castro: I agree with Jeff. The money has to be expended in order to get to the approval stage but if you look at
164 what has happened to Raleigh and Washington, the likelihood of the LRT, which has failed in the past, is a lot less

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165 than it was when it previously failed. The state has changed their prioritization of projects for transportation money
166 with Strategic Transportation investments. It is a new strategic approach geared to economic development, not what
167 the LRT would do. State money is not likely. If Federal money is also not likely, the project is probably a no-go. If
168 they are both not likely, which I think is going to be the case, then it is definitely a no-go. We are going to throw this
169 money out and my perspective, coming from the senior population; we will not see a single rider until the whole
170 system is built out.

171
172 Bret Martin: There is a whole lot of upfront cost that goes into project development and planning before you even
173 know if the project is going to get funded, so if it doesn't get funded that was a waste and that is true.

174
175 Jeff Charles: I want to see a light rail here eventually but I am wondering whether the timetable that has been
176 established, that front loads the \$30 million, if that could be made 20 or 30 percent longer to free up additional funds
177 for what we really need now, which is this stuff (bus routes).

178
179 Bret Martin: I am working with what I have got.

180
181 Abigaille Pittman: We are a tied to this implementation agreement that was agreed to by all the parties. We have to
182 implement what is under the agreement.

183
184 Jeff Charles: We are being asked to approve a resolution. Does the plan you presented provide an equitable use of
185 the half-cent sales tax mentioned two paragraphs above? And the seven-dollar registration tax?

186
187 Bret Martin: The OC BRIP is the financial plan per the law.

188
189 Alex Castro: Is it stipulated that it has to be distributed according to the formula and TTA cannot apply them for
190 something else?

191
192 Jeff Charles: They have already planned to fund the \$6 million dollars over x number of years. One hundred percent
193 of excess funds accumulated should be passed through to the county for the bus system or other uses.

194
195 Bret Martin: The Orange County Bus and Rail Investment Plan is the overarching policy guide for all this and this bus
196 expansion program is specific to OPT implementation details. It is true that the assumption was changed that the
197 revenue projections would not grow by 3.6% per year. It was revised upward to 4.4% per year, which creates
198 additional revenue beyond what was originally projected. That difference creates a total of \$60 million extra funds.
199 On the other side the expenditures have changed. The plan originally called for the capital purchases of buses,
200 amenities, park and rides, etc. and for there to be an 80% federal share and 10% state share. That was a dangerous
201 assumption. That figure has been revised to 30% federal and 5% state. The idea is that the additional revenue
202 would be soaked up by the fact that more local expenditures would be used to pay for the capital purchases. I
203 calculated the capital purchases will only cost (with the 30% federal 5% state shares) about \$18 million dollars.
204 There is \$42 million dollars unaccounted for by TTA. We need to know where the rest of the money will be spent.

205
206 Jeff Charles: Don't we need that information to talk about this resolution.

207
208 Abigail Pittman: This is the initial years with the initial money.

209
210 Paul Guthrie: Why do you need this resolution now?

211
212 Bret Martin: The BOCC will see this in March and will be asked to approve the program in April or early May and
213 they would like a recommendation.

214
215 Paul Guthrie: I have many of the same questions about the resolution. On one hand, I think we could come to
216 agreement on the concept of these routes. Whether that is an equitable distribution of the proceeds to TTA or not, I
217 am not sure we have enough information to know that and yet this resolution basically slams the door on that
218 discussion.

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220 Bret Martin: You are reading that in a recital of the resolution?
221

222 Abigaile Pittman: You need to read the rest of that sentence and the use of the word equitable as applied to transit
223 dependent populations, not in the sense of the TTA funding and sales tax.
224

225 Jeff Charles: I still think the outstanding issue is what percentage of that funding is going to Orange County versus
226 Chapel Hill. I am uncomfortable. Bret; I think you have done a wonderful job with the amount of the funding you
227 have been given. As an advisory committee we have to be careful what we are recommending. I am not
228 comfortable with this resolution at all as written.
229

230 Bret Martin: My intent for being here is to get a recommendation on the program.
231

232 Paul Guthrie: What would be the ability to put a simple resolution together that says something about this program
233 you have just described telling the BOCC what we think about it. It is a good thing we can support. And then put a
234 paragraph about the other issues that have come up that need further study and examination and then come back to
235 what you think is absolutely necessary to move this forward.
236

237 Alex Castro: The point I am concerned about is the changed parameters. You told us the assumptions that were
238 made about Federal and State funding percentages have changed. I suggest to the Board we see if we have any
239 problems with what we have been briefed on and say we agree with this part but we feel that we need to point out the
240 changes and our concerns.
241

242 Bret Martin: This resolution is only working within what resources are being made available through OPT. This
243 resolution is not changing anything at a policy level, at the OC BRIP level, as to what will happen with the money.
244

245 Alex Castro: I think it is important that we show concerns about changes in the parameters on the Federal and State
246 level and to point out the parameters outlined in these new directions that come from Washington and Raleigh and
247 that the funding that comes from them will be allocated differently, and to point out to the BOCC that this needs to be
248 reviewed.
249

250 Bret Martin: The BOCC is getting this because they are a party to the implementation plan.
251

252 Jeff Charles: We represent the community. The reason we are part of an advisory committee is because they want
253 to hear from their constituents and this is a focus group of that and we need to get that opinion across to them if the
254 majority feels that way.
255

256 Paul Guthrie: What do you need from us tonight?
257

258 Abigaile Pittman: I'd like to get a decision from the Board on the goals first and then you could vote on
259 recommended bus expansion program, either by considering each individual route or by considering the whole
260 package. You don't have to do anything with the resolution.
261

262 Sam Lasris: We can resolve to support the goals but be skeptical of the funding.
263

264 Alex Castro: I would put it in the context that, whereas the federal government has implemented Map 21 and the
265 State of North Carolina has implemented Strategic Mobility Formula plan, and indicate the changes from the prior
266 assumed funding percentages, that this has great implementations for the county. We have concerns that what is
267 proposed will not get the allocations from the State or Federal government that were anticipated.
268

269 Paul Guthrie: I am going to have to leave so I am asking Jeff (Charles) to begin chairing. My suggestion is that we
270 don't deal with the resolution as a whole but look at the goals and then get a strategy how we can get some of these
271 other issues to the front and center.
272

273 Abigaile Pittman: I would like the Board to consider the goals first, then the proposed bus routes, and then you can
274 provide statement(s) on your other issues of concern.

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Bret Martin: (Continued presentation).

Alex Castro: The Advisory Board on Aging has provided recommendations on bus service expansion routes in a written letter to the BOCC.

Bret Martin: (Continued presentation).

Abigaile Pittman: I need to know if you support these goals and address the order because the order reflects priority.

Amy Cole: I am in support of all the goals because they have come directly from the evidence of the surveys, indicating what we are in need of. As far the order of the goals, I would like to know percentage-wise which would serve the most people and then order these according to the greatest population being served.

Ted Triebel: I am on the same track as Amy. I would suggest we swap number one and two. The number one priority, when you look at page 17, this is where most of the people are being affected. We didn't mention environmental concerns. This is the greatest volume of people and that is why I would be in favor of Amy's objective.

Motion made by Ted Triebel that the OUTBoard supports the four goals with prioritization being goal #2 and then #1, then the remainder in the order they are presented. Sam Lasris seconded.

Vote: 9:1 (Gary Saunders) (*Gary Saunders did not provide a reason for his vote in opposition.*)

Amy Cole: I am suggesting that we serve the majority of the population that needs to be served first and working our way down the list.

Abigaile Pittman: That comes in the next vote.

Jeff Charles: Attachments 3, 4 and 5.

Abigaile Pittman: Amy's concern is that Later Senior Routes are being implemented too late.

Amy Cole: I thought it should be higher on the list.

Alex Castro: That service is not scheduled to come on until July, 2016 and the Department on Aging feels that it should be brought into service much sooner.

Abigaile Pittman: We are entering into the county's budget discussion for the next fiscal year. There might also be a discussion of additional funds to go toward something else but that is unknown at this time.

Bret Martin: Going through the budget process, the only thing changing is to get rid of \$3 co pay for medical appointments and to stop collecting fares on the 420 route.

Jeff Charles: There is not a clear swap. For the first year, it is basically \$56,000 so where will you get the funds to swap it out to have it occur in 2016 instead of 2017?

Bret Martin: What would naturally come out would be northern zone routes that could be implemented later. The US 70 route could possibly be pushed back because it will be sensitive to when Triangle Transit begins service.

Alex Castro: The 420 route is a midday substitution by OPT of what TTA runs rush hour morning and evening. TTA charges for that route and are we saying we want OPT to run the same route but because they are doing it midday we are not going to charge? I don't see the trade-off.

Bret Martin: Triangle Transit is trying to focus on employment commuters. OPT service is primarily local.

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329 Jeff Charles: If you are concerned about seniors they are the least likely to be able to pay that fee so I think it would
330 be important to not charge. Could we go with a recommendation to bring it back to Bret and you reorganize it and do
331 what Amy is suggesting?
332

333 Bret Martin: I would move it earlier and keep everything else in the same order and it would be presented to the
334 BOCC as the OUTBoard's recommendation.
335

336 Ted Triebel: In the Attachments 3, 4 and 5, I don't see any statement that we should be gathering data on ridership
337 so that there will be a re-examination of routes that should be made and not just this is the way it is. Shouldn't there
338 be something in there that after a certain period we should rearrange a route or two? That would be a worthwhile
339 comment to make.
340

341 Bret Martin: That will be in the program and we have already developed service standards.
342

343 Ted Triebel: I only like this if at the one year mark, we will take a look at it and make sure we have what we need.
344

345 Bret Martin: There will be service standards in the program that will address that.
346

347 Jeff Charles: Can I get a motion to approve Attachments 3, 4 and 5 with the changes of the senior service getting a
348 higher priority and including a footnote comment that Ted is suggesting?
349

350 **Motion** made by Alex Castro to approve Attachments 3, 4 and 5 with changes that the senior services get higher
351 priority and include a footnote that that new bus routes be reviewed annually according to program service standards.
352 Seconded by Don.
353

354 **Vote:** Unanimous
355

356 Abigaille Pittman: In March and April the program will be presented to the BOCC with your recommendation and
357 comments. In April and May they will approve some type of bus program for the first five years, and in May and June
358 there is a group looking at making revisions to the OC BRIP because facts have changed with regard to funding and
359 project timing.
360

361 Jeff Charles: We need one more motion with respect to the equitable use of funding.
362

363 Alex Castro: Our concern is that prior transportation planning and allocation of funding has been adversely impacted
364 by the newly implemented Federal Map 21 program and the State Strategic Mobility Funding Plan, and that the
365 changes in Washington DC and Raleigh have changed priorities and the allocation of funding.
366

367 Bret Martin: Nothing changed in Washington DC. Triangle Transit changed the percentages because the
368 assumptions they made originally were not correct.
369

370 Alex Castro: There needs to be a correction to the planning allocations of funding made by Triangle Transit which
371 were not correct as to Federal funding, and then there needs to be an assessment of the impact of the new thrust
372 from Raleigh under the Strategic Mobility Formula plan which has changed the methodology for the prioritization and
373 funding of projects.
374

375 Jeff Charles: The OUTBoard is asking for additional information to assist them in understanding the procedure with
376 respect to changes to the OCbRIP (potentially, as Alex discussed), and also how the increased revenue is going to
377 be split. Tell the BOCC that If you want the OUTBoard to be able to continue to comment they need additional
378 information. The OUTBoard has concerns about its understanding of the revenue stream in light of the changing
379 landscape.
380

381 Ted Triebel: The OUTBoard does not have the appropriate data.
382

383 Abigaille Pittman: Our BOCC also does not yet have clarity regarding the most current funding projections from
Triangle Transit.

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384
385 Jeff Charles: Abigaile, could you draft the language for this comment and send it to Paul and I for approval?
386

387 Abigaile Pittman: Yes. I can refine what you have said and make sure it reflects what you have discussed.
388 *(The comment appears in the Abstract for the April 15, 2014 BOCC meeting.)*
389

390 Alex Castro: I think we should institute that as a process.
391

392 Abigaile Pittman: Due to the late hour, the remainder of the agenda will be deferred to the Board's March 19th
393 meeting.
394

395

396 **AGENDA ITEM V: STAFF UPDATES**
397 a. Work Group for Outlining Rural and Central Orange Public Transit Needs
398 b. Status of State, RPO and MPO Project Prioritization
399 c. DCHC MPO, BG MPO, and TARPO activities
400 **OUTBoard Action:** Receive updates
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403 **AGENDA ITEM VI: UPCOMING AGENDA ITEMS OF INTEREST ON OTHER REGIONAL TRANSPORTATION RELATED**
404 **BOARD AGENDAS**
405 **OUTBoard Action:** Receive information
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408 **AGENDA ITEM VII: BOARD COMMENTS**
409 **OUTBoard Action:** Receive comments
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412 **AGENDA ITEM VIII: ADJOURNMENT**
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414 The meeting was adjourned by consensus.



**ORANGE COUNTY
ORANGE UNIFIED TRANSPORTATION BOARD (OUTBoard)
ACTION AGENDA ITEM ABSTRACT**
Meeting Date: April 16, 2014

**Action Agenda
Item No.** 4b

SUBJECT: Review of selected private road and access standards from the Unified Development Ordinance (UDO) Section 7.8 Access and Roadways

DEPARTMENT: Planning and Inspections

PUBLIC HEARING: (Y/N)

N

ATTACHMENT(S):

1. Board of County Commissioners (BOCC) Goals
2. Orange County 2030 Comprehensive Plan Transportation Goals
3. Section 7.8 Access and Roadways, Unified Development Ordinance (UDO)

INFORMATION CONTACT:

Abigaile Pittman, Transportation/Land Use Planner, 245-2567
Tom Altieri, Comprehensive Planning Supervisor, 245-2579
Michael Harvey, Current Planning Supervisor, 245-2597
Craig Benedict, Planning Director, 245-2592

PURPOSE: To review selected private road and access standards from Section 7.8 of the UDO and recommend to the BOCC that Planning staff review/revise.

BACKGROUND: In its approved 2014 Work Plan, the following activity was identified for the OUTBoard:

Begin examination of UDO Section 7.8 Access and Roadways with respect to the goals and objectives of the Transportation Element of the Comprehensive Plan to determine consistency, and seek BOCC authorization to develop recommendations of applicable amendments to the UDO to take to the Planning Board.

This Work Plan activity relates to the following adopted goals and objectives:

- BOCC Goal 3, Priority 2: Implement Comprehensive Plan (a) Rewrite zoning and subdivision regulations (Unified Development Ordinance);
- 2030 Comprehensive Plan Transportation Goal 2, Objective T-2.3: Increase countywide access for emergency vehicles, including ways to improve response times, both for existing and new developments; and
- 2030 Comprehensive Plan Services and Community Facilities Goal 7, Objective PS-T-3 Establish and maintain an appropriate level of service for law enforcement and emergency services and ensure the provision of adequate public safety protection standards for residential, commercial, and industrial development throughout the County.

Current UDO Regulations

The impetus for this work plan task stems primarily from issues relating to the County's private road regulations found in Sections 7.8.4 and 7.8.5 of the UDO. Currently the UDO regulates private roads as follows:

1. The standards and specifications for private roads apply to subdivision in the County depending on the whether it is a Class A or B road:

TABLE 7.8.5.D BASIC STANDARDS AND SPECIFICATIONS FOR PRIVATE ROADS				
	CLASS A	CLASS B		
Max. Number of Lots	12	2	3	5
Right-of-Way Width	50 ft.	50 ft.	50 ft.	50 ft.
Travel-Way Width	18 ft.	No Standard	12 ft.	12 ft.
Road Maintenance Agreement Required	Yes	Yes	Yes	Yes
Maintenance Responsibility	Property Owners	Property Owners	Property Owners	Property Owners

Notes:

- a. Class B private roads serve 1 to 5 lots or dwelling units; however, subdivisions with two lots or dwelling units may be served by a shared driveway.
 - b. Class A private roads serve 6 to 12 lots or dwelling units.
 - c. Both Class A and Class B private roads may be graveled.
3. Public (state maintained) roads are required by the County for all subdivisions having 13 or more lots. For reference, NCDOT's Minimum Construction Standards for Subdivision Roads may be found at the following link:
<http://orangecountync.gov/planning/documents/SubdivisionManualJanuary2010.pdf>

Issues with the Current Private Road Standards

The County's tiered approach to regulating private roads was intended to allow an affordable development option for small subdivisions of no more than 5 lots. However, problems have been reported by the County's Emergency Services Department and the Volunteer Fire Departments regarding the 12-foot travel-way width permitted by the Class B private road. The narrow width of the Class B road has presented public safety issues because it does not provide adequate access for emergency services vehicles, and thus impacts response times for emergency services.

Additionally, long-term maintenance costs of private roads have led to many requests for NCDOT to accept these roads into the State-maintained system. The construction standards for NCDOT acceptance are higher than the County's Class B private road standards, and are typically prohibitively expensive to overcome. Subdivision roads with a right-of-way dedicated, recorded, or that has preliminary approval from a county planning board dated after September 30, 1975 will not be added to the State system unless the road is built to the minimum construction standards of the Division of Highways. The minimum State construction standard is 18 feet of pavement within a 50-foot right-of-way.

Related Access Issue

North Carolina General Statutes exempt certain types of subdivisions from the County's subdivision review process:

1. The combination or recombination of portions of previously subdivided and recorded lots if the total number of lots is not increased and the resultant lots are equal to or exceed the standards of the County, including private road justification standards, as detailed within the UDO.
2. The division of land into parcels greater than 10 acres is no street right-of-way dedication is involved.
3. The public acquisition by purchase of strips of land for widening or opening streets.
4. The division of a tract in single ownership of the entire area of which is no greater than two acres into not more than three lots, if no street right-of-way dedication is involved and if the resultant lots are equal to or exceed the standards of the County as detailed within the UDO.

These exempt subdivisions are still required to meet all applicable requirements for the granting of zoning and for building permits. However, the UDO does have a requirement that all newly created lots have access to a complying road, including those in exempt subdivisions. Because of the exempt nature of these subdivisions, County staff cannot guarantee viable access for created lots. Like the situation with Class B private roads, the creation of land-locked properties presents public safety issues with providing adequate access for emergency services vehicles.

Staff Options for Revisions to the Private Road and Access Standards of the UDO

To provide an appropriate level of service for emergency services vehicles and ensure the provision of adequate public safety protection standards for development, staff believes the following options should be discussed:

1. Do away with the Class B private roads and allow only the Class A private roads, which requires a minimum 18-foot travel-way.
2. Develop a requirement that all newly created lots have access to a complying road (either private or public).

To continue to allow a reasonable and affordable development option for small subdivisions, staff suggests consideration of the following UDO revision:

3. Allow subdivisions with three lots or dwelling units may be served by a shared driveway, subject to provision of a minimum driveway width, maximum driveway length, and a turnaround area that can accommodate emergency services vehicles. (The UDO currently allows two lots or dwelling units be served by a shared driveway.)

For the OUTBoard's use in the review of the identified private road and access standards of Section 7.8, staff has provided Attachment 1 the adopted BOCC goals, Attachment 2 the adopted 2030 Comprehensive Plan Transportation Goals, and Attachment 3 Section 7.8 Access and Roadways from the UDO.

RECOMMENDATIONS: The Staff recommends the OUTBoard:

1. Review the selected private road and access standards of the UDO;
2. Review and discuss the described issues and staff options for revisions to the UDO; and
3. Recommend to the BOCC that Planning staff review the private road and access standards of the UDO and develop amendments supported by the OUTBoard. .

APPROVED 9/15/09

**ORANGE COUNTY BOARD OF COUNTY COMMISSIONERS
GOALS AND PRIORITIES
Fiscal Year 2009-2010**

Goal One: Ensure a community network of basic human services and infrastructure that maintains, protects and promotes the well-being of all County residents.

Priority 4: Review services to identify and protect 'safety net' programs and services.

Priority 5: Encourage for profit investments in affordable housing and review available tools.

Goal Two: Promote an interactive and transparent system of governance that reflects community values.

Priority 6: Develop plan and tools to improve how County and citizens communicate with each other; foster two-way exchange.

Priority 7: Improve intra- and intergovernmental coordination, cooperation and collaboration. (a) Work with Town of Hillsborough on: Joint land use planning approaches, policies/ordinances, and annexation, and Economic Development Districts. (b) Work with City of Durham on: Economic Development Districts

Priority 8: Examine advisory boards and commissions to: (a) Ensure they are meeting their missions; (b) Determine how boards relate to each other and how their work can best be integrated with the BOCC; (c) Ensure sustainability goals; (d) Ensure fit with overall County vision; and (e) Recognize (and be sensitive to) consistencies represented by boards, commissions when framing this review

Priority 26: Clarify and communicate to public how and why County funding is allocated the way it is

Goal Three: Implement planning and economic development policies which create a balanced, dynamic local economy, and which promote diversity, sustainable growth and enhanced revenue while embracing community values.

Priority 2: Implement Comprehensive Plan (a) Rewrite zoning and subdivision regulations (Unified Development Ordinance).

Priority 3: Develop economic plans for three (3) districts.

Priority 9: Update economic development plan for County: (a) Clarify economic development plan for each district; (b) Identify spectrum of tools; (c) Identify other stakeholders; and (d) Identify what the County wants to see happen.

Priority 10: Develop an energy plan that includes economic development strategies to attract, retain, and grown 'green' business

Priority 19: Be actively involved and informed about UNC-CH decisions and intentions

Priority 20: Support transit, pedestrian, and bicycle facilities and other alternatives to the single passenger automobile.

Priority 21: Amend County zoning to address and modernize airport and related issues.

Goal Four: Invest in quality County facilities, a diverse work force, and technology to achieve a high performing County government.

Priority 11: Invest in technology to increase work efficiencies; e.g. web streaming, paperless agendas, integrated tracking systems between field and office.

Priority 22: Review and update County personnel and operational policies and procedures.

Priority 23: Design and fund space for County Attorney Offices. Manager and BOCC to discuss concept and staffing

Goal Five: Create, preserve, and protect a natural environment that includes clean water, clean air, wildlife, important natural lands and sustainable energy for present and future generations.

Priority 1: Conserve high priority natural areas, wildlife habitat, and prime forests.

Priority 12: Implement County's Environmental Responsibility goals

Priority 15: Complete stewardship and management plans for Lands Legacy.

Priority 16: Develop an accounting and assessment system of water and air pollution: (a) In conjunction with ICLEI; Set emissions reduction target

for 2030; Conduct public education campaign; and Link public with opportunities to improve energy efficiency and use sustainable energy sources; (b) Begin multi-year implementation of Observable Well Network

Priority 24: Plan to acquire/land bank for future park development.

Priority 25: Develop a policy/update current plan about how parks will be developed, appropriate ratio of parks to population, length of time to develop, and incorporation of such into the Capital Investment Plan (CIP).

Goal Six: Ensure a high quality of life and lifelong learning that champions diversity, education at all levels, libraries, parks, recreation, and animal welfare.

Priority 13: Plan to provide 'equitable' library services for Orange County residents.

Priority 14: Fulfill remainder of bond issuance approved by voters in 2001 for soccer and Twin Creeks

Priority 17: Review the Schools and Adequate Public Facilities Ordinance: (a) Is it doing what it was originally intended to do? (b) Does it have application for Durham and Mebane?

Priority 18: Address inequities between old and new schools. Older schools are in need of capital improvements. Building new schools has been the funding priority.

Principles Adopted by the BOCC for the Comprehensive Plan Update

There are eight (8) principles, adopted by the Orange County Board of Commissioners (BOCC) on October 21, 2004, for the Orange County Comprehensive Plan Update 2006-2008. Principle #3 was modified by the BOCC on April 24, 2007, and the revised principle is given below. These principles are representative of the BOCC values and are as follows (for clarification, staff has added one word as provided in italics):

1. Efficient and Fiscally Responsible Provision of Public Facilities and Services
2. Encouraging Sustainable Growth and Development
3. Encouraging Energy Efficiency, Lower Energy Consumption and the Use of Non-Polluting Renewable Energy Resources While Promoting Both Air Quality Protection and the Development of an Effective Transportation System
4. Natural Area Resource Preservation
5. Preservation of Rural Land Use Patterns
6. Water Resource Preservation
7. Promotion of Economic Prosperity and Diversity
8. Preservation of Community Character

These eight principles should continue to guide the development of the goals and other aspects of the Comprehensive Plan Update

TRANSPORTATION

Transportation Goal 1: An efficient and integrated multi-modal transportation system that protects the natural environment and community character.

Objective T-1.1:

Increase the occupancy of automobiles through ridesharing and other means; and expand the use of public transit (including bus and rail), walking, and biking as primary modes of travel. (See also Economic Development Objective ED-2.3.)

Objective T-1.2:

Facilitate the overall development and use of a transportation system that is more energy-efficient, reduces carbon emissions, and reduces the use of fossil fuels while promoting the use of local renewable and sustainable fuels.

Objective T-1.3:

Develop new transportation facilities in a manner that has a positive impact or avoids negative impacts on the natural environment, including air quality, water resources, biological resources, and wildlife habitat.

Objective T-1.4:

Develop new transportation facilities in a manner that has a positive impact or avoids negative impacts on the community, including historical or cultural assets, existing neighborhoods, schools and recreational facilities, and the overall rural character in Orange County.

Objective T-1.5:

Identify prime view sheds along major transportation corridors and protect these areas for their scenic and natural resource values. (See also Parks and Recreation Objective PR-5.4.)

Objective T-1.6:

Expand the availability and use of public transportation (including bus and rail) throughout the County to provide better connections between employment centers, shopping and service locations, and other key points of interest in both urban and rural areas, particularly for the County's senior and disabled populations and others without access to automobiles.

Transportation Goal 2: A multi-modal transportation system that is affordable, available, and accessible to all users and that promotes public health and safety.

Objective T-2.1:

Increase the provision of bikeways and walkways, and also increase supportive facilities such as bicycle parking zones.

Objective T-2.2:

Evaluate and serve special transportation needs of the senior population, youth, the economically disadvantaged and the disabled, including both everyday needs and disaster transit provision.

Objective T-2.3:

Increase countywide access for emergency vehicles, including ways to improve response times, both for existing and new developments. (See also Services and Community Facilities Objectives PST-2 and PST-5.)

Objective T-2.4:

Improve the provision of public transit facilities and services, and also increase supportive facilities for transit, such as park and ride lots.

Objective T-2.5:

Improve public education and advertising of existing transit services.

Objective T-2.6:

Increase safety awareness between car drivers and bicycle riders, and increase safety for pedestrians.

Objective T-2.7:

Construct bicycle facilities in Orange County that will make cycling safer, more convenient, and more efficient.

Transportation Goal 3: Integrated land use planning and transportation planning that serves existing development, supports future development, and is consistent with the County's land use plans which include provisions for preserving the natural environment and community character.

Objective T-3.1:

Improve the County's transportation system by first enhancing existing facilities as opposed to developing new facilities.

Objective T-3.2:

Create and implement an Orange County Comprehensive Transportation Plan that provides the framework for a comprehensive and connected transportation system supporting a mix of all transportation modes, including sidewalks and bicycle facilities, bus and rail transit facilities, and highways. The plan should be coordinated with the goals and objectives of this Comprehensive Plan and seek to maintain and enhance community character and the natural environment.

Objective T-3.3:

Determine the policies to guide connectivity within and between residential developments based on their impact on neighborhood character.

Objective T-3.4:

Direct development to higher density mixed-use districts along transit corridors and make necessary multi-modal transportation improvements to service lands that are slated for future intense development, such as Economic Development Districts.

Objective T-3.5:

Use innovative techniques to increase mobility and reduce rush hour congestion.

Transportation Goal 4: A countywide and regionally-integrated, multi-modal transportation planning process that is comprehensive, creative and effective.

Objective T-4.1:

Work with nearby jurisdictions to integrate the County's transportation plans with those of other transportation planning agencies and service providers in Orange County and the Triangle region. The resulting intermodal transportation system should reflect regional goals and objectives to meet projected travel demand and to reduce congestion and reliance on single occupancy vehicles.

Objective T-4.2:

Plan and integrate the County's multi-modal transportation routes and services with regional transportation agencies and transit service providers, agencies and transit providers in neighboring counties, the North Carolina Department of Transportation, Amtrak, and the North Carolina Railroad.

Objective T-4.3:

Revive rail transportation in Orange County and the Triangle region.

- (2) The proposed easement contains an existing road or driveway which is to be used for access to new lots; OR the proposed easement if located along a property line will have an irregular shape; and
- (3) The minimum lot area requirement can be met on one side of the road easement but not both sides.
- (G) Those lots with land area divided by a public road right-of-way prior to October 3, 1988 shall not be further subdivided in a manner which creates any additional lots with divided area.

SECTION 7.8: ACCESS AND ROADWAYS

7.8.1 Streets – General Standards

(A) Consistency with Comprehensive Plan

- (1) The provision of street rights-of-way shall conform to and meet the requirements of the Orange County Comprehensive Plan.
- (2) Reservation for or dedication of street rights-of-way for future transportation facilities proposed in the adopted Comprehensive Plan shall be required where appropriate.
- (3) A subdivider shall not be required to provide or dedicate right-of-way for a proposed street to which access would be prohibited by any governmental agency.

(B) Compliance with Approved Access Management Plans and Studies

- (1) Subdivision of land abutting a roadway for which the Board of County Commissioners has approved recommendations from a plan or corridor study is subject to provisions of the approved corridor plan or study.
 - (a) In such cases, the subdivider shall provide any improvements or other means to ensure construction recommended in such plan or corridor study. Such improvements may include facilities for bicycles, sidewalks, and public transportation.
 - (b) The subdivider, in cases where the recommendations address access management, shall use design elements recommended in the plan or corridor study to reduce conflict points.
- (2) Policies prescribed in Phase V of the Access Management Awareness Project and Report, or other adopted studies of strategies, shall be considered during subdivision and site plan review to assess access management and other corridor design considerations.

(C) Coordinated Street System

- (1) All subdivisions shall have a coordinated street system with public or private streets that access a public municipal street or a public State maintained street in accordance with the following:
 - (a) Public street rights-of-way shall abut adjacent properties as necessary to provide connectivity to the countywide transportation network; and
 - (b) Lot access to streets serving the subdivision shall be limited in the case of streets that provide a link between two or more roads designated in the Comprehensive Plan as arterials or collectors.
 - (c) All subdivisions shall have at least one street that intersects with or joins a public municipal street, or a public State maintained street.

7.8.2 Public Streets – Where Required

Public streets are generally required in all subdivisions and shall be required where it is found that:

- (A) The subdivision streets would be accepted by the State for maintenance if:
 - (1) They are built in a manner which satisfies the minimum State design and construction criteria for subdivision streets; and
 - (2) They would satisfy other requirements for addition to the State maintenance system, including, but not limited to, the general density standard of at least two occupied residences for each one-tenth of a mile of subdivision street.

If, upon review of a subdivision plat, it is determined that the general density standard is met, but a design standard is not, a re-design will be required where possible. For example, if the number of lots proposed along a subdivision street would clearly satisfy the density standard, but the street design was such that the centerline radius did not meet the minimum standard of 230 feet for level land, a new street design would be required. Another example is a situation where a landscaped island or entrance median prevents acceptance of the street for maintenance.

The State's criteria and standards are identified in the following publications: Subdivision Roads - Minimum Construction Standards and Traditional Neighborhood Development (TND) Guidelines, prepared by and available from the N.C. Department of Transportation; or

- (B) The subdivision streets extend existing streets which are public; or
- (C) The subdivision streets are part of a development which is located in an area designated as Urban or Transition by the Orange County Comprehensive Plan; or
- (D) A proposed street is designated as an arterial or collector on an approved Thoroughfare Plan for a municipality or in the Orange County Comprehensive Plan; or
- (E) The subdivision streets are part of a non-residential development consisting of office, retail, industrial, and similar businesses, each located on a separate lot. This provision shall only apply to that portion of a subdivision being developed for non residential purposes.

7.8.3 Public Streets - Construction Standards

Public dedicated streets must meet the minimum construction standards as adopted by the N.C. Department of Transportation for acceptance of streets as additions to the State Highway System.

7.8.4 Private Roads – When Permitted

- (A) A private road shall be deemed justified for a minor residential subdivision resulting in no more than three lots provided:
 - (1) No new lots have been created from the parent tract, through subdivision or other manner exempted from subdivision regulations, since the more recent:
 - (a) Date of adoption of this provision (September 18, 2001); or
 - (b) Ten years from the date of recordation of the parent tract if the lot being subdivided was created using the three-lot private road justification provision.

The parent tract, for the purpose of this provision, is the lot or tract of land that is being subdivided.

 - (2) All resulting lots meet the minimum lot area per dwelling unit and maximum density requirements for the zoning district, including any overlay district, in which the subdivision is located.

- (B) A minor residential subdivision of three or fewer lots shall be encouraged to provide a private access easement for one adjacent lot to access the private road in order to reduce the number of access points on a public road.
- (C) For all other subdivisions the Planning Board and the Board of County Commissioners (in the case of major subdivisions) and Planning staff (in the case of minor subdivisions) shall consider the design features in this subsection (8.8.4) when determining whether to permit private roads.
- (D) There is no right to a private road in any subdivision containing more than three lots.
- (E) At a minimum, a private road may be justified if the subdivision meets standards of (1) below and at least two other design features (2 through 7) listed below.
 - (1) The location and design of the subdivision is such that it clearly preserves the rural character of the County through:
 - (a) The provision of lot sizes and building setbacks significantly greater than those required by the zoning district in which the proposed subdivision is located, including any overlay district requirements, in accordance with the following standards:
 - (i) Lot Sizes – Conventional Subdivision
 - a. All lots in the subdivision must be at least 80,000 square feet if the minimum lot size or area per dwelling unit of the zoning district is 40,000 square feet or less.
 - b. All lots must be at least 120,000 square feet (2.75 acres) if the minimum lot size or area per dwelling unit of the zoning district is 80,000 square feet.
 - c. All lots must be at least 130,680 square feet (three acres) if the minimum lot size or area per dwelling unit of the zoning district is 87,120 square feet (two acres).
 - d. All lots must be at least five acres for all other cases.
 - e. Minimum building setbacks for lots located on a private road shall be twice those required.
 - (ii) Lot Sizes – Cluster Subdivision or Flexible Development without Density Bonus
 - a. In zoning districts having a minimum lot size of 40,000 square feet:
 - i. All lots must be at least 80,000 square feet in subdivisions providing 40% or less open space;
 - ii. All lots must be at least 70,000 square feet in subdivisions providing 41% - 49% open space;
 - iii. All lots must be at least 60,000 square feet in subdivisions providing 50% or greater open space.
 - b. In zoning districts having a minimum lot size or area per dwelling unit of 80,000 square feet or two acres (87,120 square feet):
 - i. All lots must be at least 130,680 square feet (3 acres) in subdivisions providing 40% or less open space;
 - ii. All lots must be at least 90,000 square feet (2.07 acres) in subdivisions providing 41% - 49% open space;

- (d) The land being subdivided is not connected to, or part of, another subdivision required to be served by public roads.
- (F) The Declaration of Development Restrictions, prepared by the Planning Department and recorded concurrently with the Final Plat, shall include a statement that further subdivision of any of the lots may require that the road be upgraded to a higher private road classification, or to public standards, and that the cost of the upgrade will be the responsibility of the subdivider.
- (G) Where a parcel being subdivided was created by a previous subdivision approved after July 5, 1983, then the previous subdivision as well as the proposed subdivision will be considered in determining whether a private road is still justified.
- (H) It shall be the responsibility of the applicant for subdivision approval to supply a written statement justifying the reasons for private roads in the proposed subdivision.
- (I) Compliance with one or more of the standards in this subsection (8.8.4) does not insure approval of either a public or private road within a proposed subdivision.
- (J) A private road shall be required to meet standards set by Orange County as described in Section 7.8.5. Satisfactory proof that the standards are met will be required by the County Manager or his/her appointed agents.
- (K) If a subdivision is to contain private roads, the subdivider shall have the County's Standard Road Maintenance Agreement entitled, "DECLARATION OF RESTRICTIONS AND PROVISIONS FOR PRIVATE ROAD MAINTENANCE" prepared and processed in accordance with Section 2.14 for minor subdivisions or Section 2.15 for major subdivisions and shall conform to the requirements of Section 7.14.3(6)(b)(ii).
- (L) The land within a private road easement shall be included within the lot boundaries of the lot or lots which border the easement. The road maintenance agreement shall include a provision that if the road is dedicated for public use at a later date, then the lot boundaries will be revised to extend only to the edge of the right-of-way, in accordance with NCDOT standards.

7.8.5 Private Road Standards

(A) Purpose and Intent

- (1) In Orange County, the preference is to serve subdivisions with State-maintained (NCDOT) public streets or municipal streets. The County recognizes, however, that private roads may be beneficial in some cases where the developer provides significantly larger lots, and where a private road graded to a narrower cross-section saves valuable vistas, trees, or natural resources, and reduces cut-and-fill and overall land disturbance. Where the developer clearly provides benefits such as enhancing entrances or streetscapes off an adjoining public road, saving trees, providing large lots, reducing disturbance, and "fitting" lots better into their natural surroundings, the Planning Department, Planning Board, and Board of County Commissioners may permit the use of private roads.
- (2) The County is concerned about the logical and safe extension of public roads throughout the County and notes that private roads cannot be served by school buses and sometimes not by rescue squads and fire trucks. Private roads are generally unpaved and property owners who use the road are solely responsible for maintenance of the road.
- (3) The County will approve only private roads where the "benefits" outweigh the negative aspects.
- (4) Private roads shall never be approved simply to save money.
- (5) Private roads are a privilege, and not a right, and must be justified by the particular lot arrangement and benefits provided by each development.

(B) General Requirements

- (1) Private Roads serve lots within subdivisions that do not have access to state-maintained roads.
- (2) Private Roads insure that all lots have documented legal right-of-way and provide adequate access for residents and emergency vehicles.
- (3) Private Roads may be allowed in a subdivision where, in the judgment of the Planning Board and with the approval of the Board of County Commissioners, it is found that the nature and location of the subdivision are such that a private road is justified.
 - (a) In determining whether to permit Private Roads in subdivisions, the design features contained in subsection (F)(5) of this Section shall be considered.
 - (b) It is the responsibility of the subdivider to supply a written statement justifying the reasons for Private Roads in the proposed subdivision.
- (4) After approval of and initial construction of the Private Road, maintenance must be provided by the property owners of lots located along the road. A Road Maintenance Agreement or Declaration between the lot owners is required to insure that the needed repairs are made (see subsection (F)(10)(i)).
- (5) Since Private Roads are not constructed to North Carolina Department of Transportation standards, they will not be added to the Secondary Road System and will not be maintained by the State or Orange County.

(C) Classifications

- (1) The standards and specifications for Private Roads apply to subdivisions in Orange County and the class of road required depends on the number of lots served by the road.
 - (a) A Class B road serves 1 to 5 lots or dwelling units.
 - (b) A Class A road serves 6 to 12 lots or dwelling units.
- (2) All Private Roads in a major subdivision require the approval of the Board of County Commissioners.
- (3) Before the final plat of the subdivision can be recorded, the Private Road must be built and approved, or the applicant must post a security instrument with the County in an amount that would cover the cost of constructing the road.
- (4) Class B Private Roads intended to serve two lots or dwelling units are not required to be constructed to Orange County Standards or to be inspected before recordation of the final plat.
 - (a) Orange County recommends that such Class B roads be built to these standards in order to provide adequate access, especially for emergency vehicles which require the clearances and turn areas shown on the specifications.

(D) Construction Standards for Private Roads

The standards described herein are the minimum set forth by the County. Orange County has not determined, and is not responsible for determining, that these standards are adequate or appropriate for all uses by landowners. The standards also may not meet NCDOT criteria. No road will be accepted for maintenance by NCDOT unless or until NCDOT standards are met.

TABLE 7.8.5.D BASIC STANDARDS AND SPECIFICATIONS FOR PRIVATE ROADS				
	CLASS A	CLASS B		
Max. Number of Lots	12	2	3	5
Right-of-Way Width	50 ft.	50 ft.	50 ft.	50 ft.
Travel-Way Width	18 ft.	No Standard	12 ft.	12 ft.
Road Maintenance Agreement Required	Yes	Yes	Yes	Yes
Maintenance Responsibility	Property Owners	Property Owners	Property Owners	Property Owners

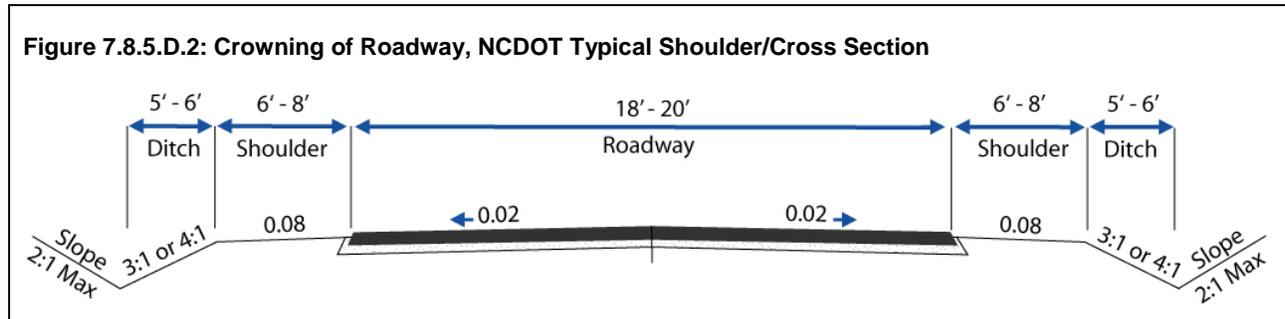
(1) Certificate of Construction

- (a) A registered land surveyor must certify in writing to the Planning Department that the travelway of the Private Road, either existing, upgraded or newly constructed, is within the platted right-of-way.
- (b) A professional engineer must certify in writing to the Planning Department that a Private Road, either existing, upgraded, or newly constructed, meets the standards of the required class for the subdivision, provided however, there is no requirement for written certification by a professional engineer for a private road serving three or fewer lots.
- (c) The following must be inspected and certified:
 - (i) The proper material has been used in the travelway and it is built to the required width and thickness;
 - (ii) The shoulders are the correct width and the typical cross section is in place;
 - (iii) The road is on the proper grade;
 - (iv) Ditches are in place where necessary to provide adequate drainage, in accordance with sound engineering practice;
 - (v) Necessary storm pipes of proper size, materials and construction are in place and energy dissipaters installed, in accordance with sound engineering practice;
 - (vi) All disturbed areas are properly stabilized;
 - (vii) The required road sign is in place;
 - (viii) An adequate turn-around is in place at the end of the road;
 - (ix) Required vertical and horizontal clearance is provided; and
 - (x) Sight distance and construction at the intersection with a public road has been approved by NCDOT.

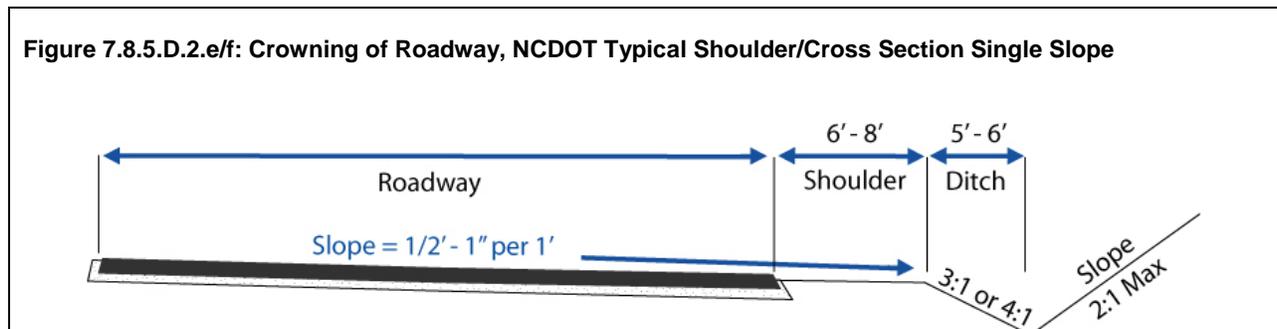
(2) Travelway

- (a) The travelway must be surfaced and compacted with a material acceptable to Orange County to the required width of the particular class of road.
- (b) A crown should be built into the travelway so that water will drain from the road surface into the side ditch.
- (c) The crown should not be so great as to cause vehicles to slide off the travelway when ice or snow is on the road.

- (d) Generally the road and shoulder should be crowned as shown in the drawing below so that runoff will drain to the ditches on both sides of the road.



- (e) In some situations it may be desirable not to crown the road but to have the travelway sloped to a single ditch as shown below. This is applicable in four situations:
- (i) Where it is necessary to cut down on the length of a ditch in order to reduce the erosion potential by decreasing the volume of runoff,
 - (ii) Where it is difficult to construct ditches due to rock,
 - (iii) To provide for super-elevation, or
 - (iv) In curves.
- (f) The single slope described in (e) should always drain toward the inside of a curve. The crown slope of the road and shoulder should be approximately 1/2 to 1 inch per foot.



(3) Surface Materials

- (a) Acceptable material for surfacing the travelway is Aggregate Base Course (commonly called "crusher run").
- (b) Soil type base materials (commonly called "Chapel Hill Gravel" or "Chapel Hill Grit") will be accepted under the following conditions:
 - (i) The material originates from a quarry approved by the North Carolina Department of Transportation.
 - (ii) The grade of the road is less than 8%.
 - (iii) Where the grade is greater than 8% a layer of crusher run stone will be placed over the Chapel Hill Gravel before compaction.
 - (iv) Sources of surface material shall be verified with the certifying professional before placement.

(4) Fill Material

- (a) Where filling is necessary to raise the roadbed, cross watercourses or fill stump holes, it shall be done with suitable material that is free of roots or other organic matter.
- (b) The fill should be firmly compacted to reduce settlement that will cause ruts or holes in the finished road.

(5) Traffic Flow

- (a) Private Roads shall provide for two-way traffic in order to prevent conflict of vehicles meeting head-on.
- (b) Two-way traffic for Class B roads can be accomplished by widening the travelway at prescribed locations to at least 16 feet to allow vehicles to pass or to pull over and stop while another vehicle passes.
- (c) Plans showing road and right-of-way location, ditches and culverts, extent of clearing, and existing and finish contour lines shall be approved by the Erosion Control Officer.

(6) Medians

- (a) Medians may be permitted between travel lanes when it is demonstrated that such design is desirable for the preservation of natural resources, or that excessive cut and fill would be required to construct a roadway to the standard width.
- (b) Medians may be permitted only in accordance with the following:
 - (i) Each lane shall contain a minimum of 14 feet of vertical and horizontal clearance.
 - (ii) Each lane shall contain a minimum travelway of eight feet, or 1/2 of the required width for the applicable road class, whichever is greater.
 - (iii) No lots shall access directly onto any divided portion of the road unless there is adequate cross-access provided through the median, or some other acceptable means of access and turnaround for emergency vehicles.
 - (iv) Both lanes shall be contained within a single easement.
 - (v) A standard travelway of required width for the road class shall be constructed where the private road intersects with another private or public road.
 - (vi) Signs indicating "One Way" and/or a split roadway shall be provided where the lanes diverge.

(7) Grade

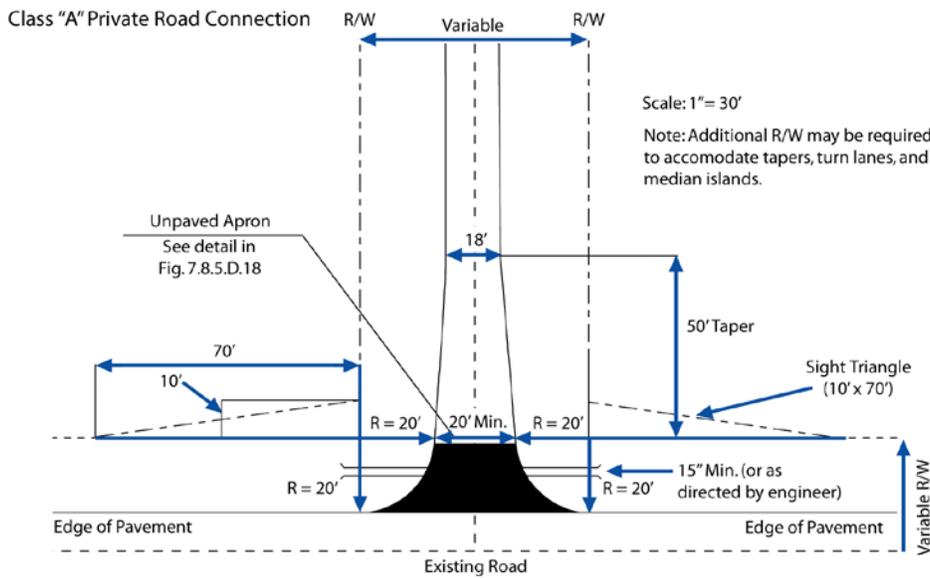
- (a) The grade of the road should not exceed 12% because of the difficulty of operating vehicles on such a steep road and the high potential for erosion of the travelway and ditches.
- (b) Where possible, the road should be constructed along the contour of the land to avoid steep grades.
- (c) In exceptional circumstances a variance may be granted for a grade greater than 12%, as may be approved by the Board of Adjustment prior to construction (see Section 2.10 for variance procedures).
Circumstances where a variance will be considered are:
 - (i) There is no other reasonable access or location of the road,

- (ii) Relocating the road would create other, more serious problems with drainage, stabilization, or environmental impact, and/or
- (iii) The length of the segment with grade greater than 12% is no longer than 100 feet.

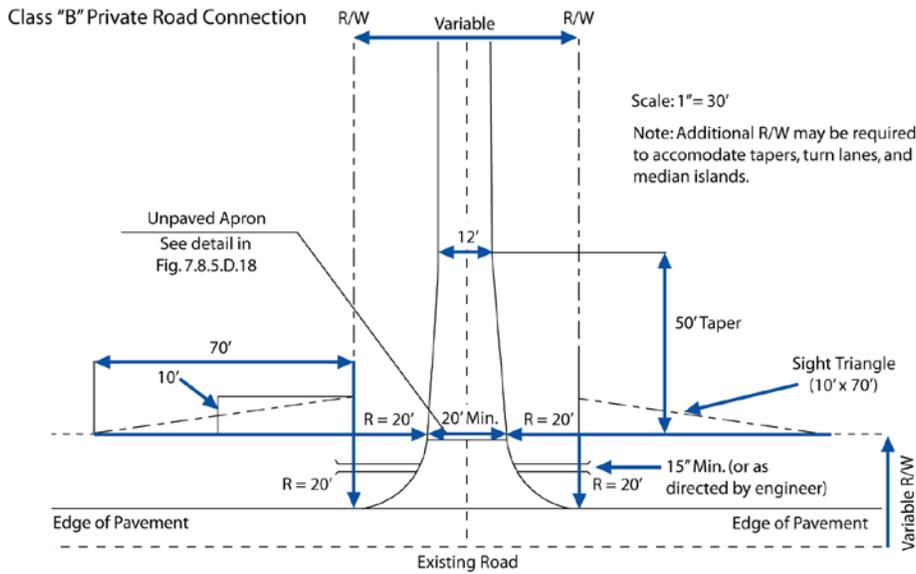
(8) Intersection with Public Road

- (a) The intersection of the Private Road with the existing public road shall permit a safe entrance and exit.
- (b) Adequate sight distances along the public road shall be provided by choosing a good location for the right-of-way and clearing sight triangles when building the road.
- (c) The intersection of a Private Road with a public road must provide an adequate place for cars to stop before entering the public road. See the diagram below.

Figure 7.8.5.D.8: Intersection with Public Road



Note: Permanent drainage easements may be required to accommodate drainage beyond the right-of-way



Note: Permanent drainage easements may be required to accommodate drainage beyond the right-of-way

- (d) The Private Road must flare at the public road in order to permit a vehicle to enter the Private Road when another vehicle is waiting to exit on the Private Road. The dimensions of the required flare are 20-feet for both a Class A and Class B Private Road, as shown in Figure 7.8.5.D.8.

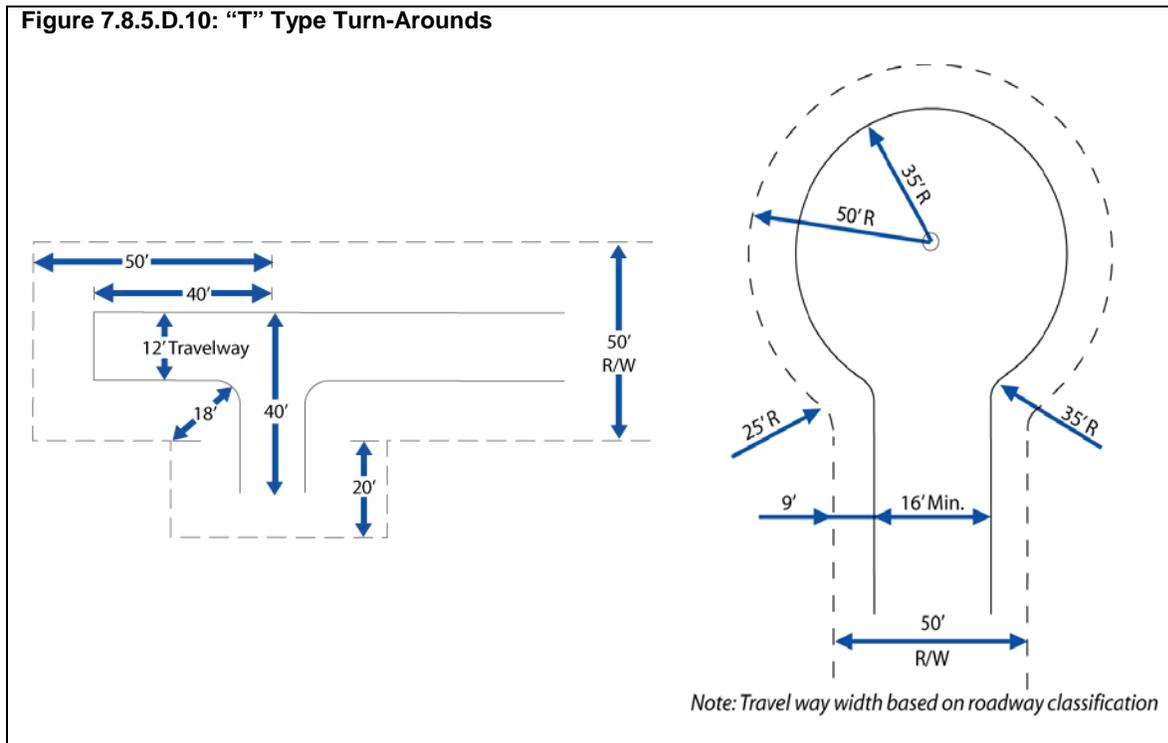
(9) Drainage

- (a) Ditches shall be constructed to provide drainage from the road and adjacent areas.
- (b) The ditches shall be built with sufficient depth and width to carry the expected volume of water.

- (c) The side slopes shall be graded so that they can be stabilized and to prevent vehicles from becoming stuck if they slide into the ditch.
- (d) Where the road crosses streams or minor watercourses, culverts shall be installed to prevent ponding and washouts of the road for the design five-year storm.
- (e) On streams where it is not economical to install a large culvert of the required size, the Erosion Control Officer may allow the installation of a smaller culvert if engineering equivalent provisions are made to protect the road surface and fill slopes from erosion when runoff tops the road.

(10) Turn-Arounds

- (a) Vehicle turn-around areas shall be provided at the end of all dead end roads. This can be accomplished by ending the road in a cul-de-sac or a "T".
- (b) The "T" type turn-around is preferred.
- (c) Culs-de-sac shall have a minimum diameter of 70 feet.
- (d) A "T" turn-around must conform to the dimensions in the diagram below.



- (e) The location of the turn-around will depend on the arrangement of the lots in the subdivision.
- (f) If the Private Road serves only one lot the turn-around should be located near the building site.
- (g) In a subdivision with several lots the turn-around should be at the end of the road and the necessary right-of-way provided.

(11) Road Name and Sign

- (a) The road name shall be verified with the Orange County Planning Department to insure that the proposed name does not duplicate an existing name.

- (b) The road sign shall have one double-sided blade showing the name of the Private Road and another showing the name of the existing State maintained road.
- (c) Class B roads of any length are required to be named and to have a road sign posted.

(12) Right-of-Way

- (a) The right-of-way shall be 50-feet wide and indicated on the final plat.
- (b) Requests for rights-of-way less than 50-feet in width must be approved by the Board of County Commissioners. In no case shall a right-of-way less than 25-feet in width be approved.
- (c) Bends in the right-of-way must be at angles that will permit construction of curves with a 125-foot minimum centerline radius (see subsection (17) below).

(13) Vegetation

- (a) All areas disturbed by the construction of the road, including the shoulders, ditch banks, cut and fill slopes and any borrow areas, shall be seeded in permanent vegetation to stabilize the soil and prevent erosion.
- (b) Seeding should be done immediately after grading is completed and before the final inspection by the Planning Department.
- (c) The disturbed area shall be smoothed and lightly harrowed to break up the soil and prepare a good seedbed. The following materials are recommended per 1,000 square feet:
 - (i) 1.4 lbs. Fescue grass seed
 - (ii) 0.4 lbs. German or Browntop millet (to provide temporary cover until the grass becomes established)
 - (iii) 90 lbs. lime
 - (iv) 23 lbs. 10-10-10 Fertilizer
 - (v) Two 40 lb. Bales of straw for mulch (enough to cover 75% of the ground surface)
- (d) Other types of permanent vegetation may be substituted as long as they provide adequate cover to prevent erosion.

(14) Maintenance

- (a) Maintenance of the Private Road must be provided by the lot owners that are served by the road.
- (b) The required Road Maintenance Agreement between the lot owners is required to insure that the cost is shared equally and a mechanism for maintenance is set up.
- (c) The responsibility for maintenance is the property owners and neither the State nor Orange County will maintain the road.
- (d) Regular attention shall be given to the following items in order to assure that the road will remain in good condition:
 - (i) The vegetation shall be mowed, limed and fertilized as needed. Areas that erode or where seeding is unsuccessful should be reseeded.

- (ii) Culverts shall be kept clear of trash and other obstructions that could prevent or reduce the culverts function. If culverts are not kept clear it will cause runoff to flow over the road and may cause flooding upstream. Ditch banks and bottoms shall be protected from erosion by maintaining good vegetation.
- (iii) The travelway shall be maintained by grading the surface material to fill any potholes that develop and to evenly spread the surface material where the soil has been uncovered because of erosion.
- (iv) The road name sign shall be kept visible and legible so that visitors and emergency personnel can easily locate the road.

(15) Vertical Clearance

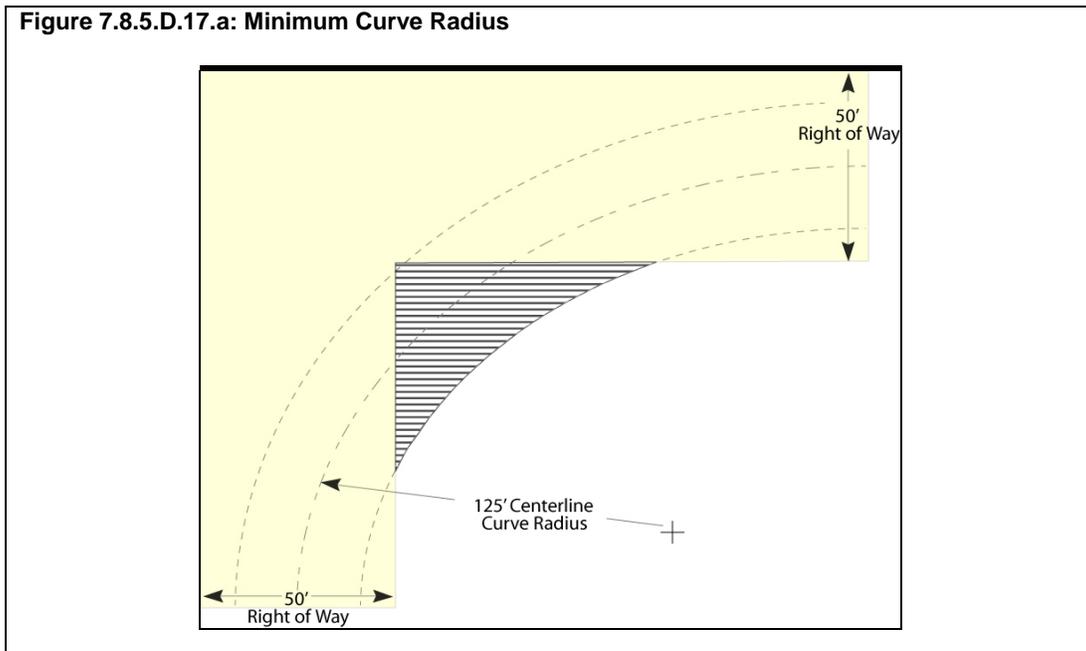
A minimum 14-foot vertical clearance shall be provided above the travelway to permit the passage of large vehicles under power lines and tree limbs.

(16) N.C. Department of Transportation Driveway Permit

The property owner is responsible for obtaining the required permit for access to the state maintained road. This permit can be obtained from the DOT in Hillsborough. Permits are normally granted on request.

(17) Minimum Curve Radius

- (a) New curves shall be constructed with a minimum centerline radius of 125-feet (see graphic).

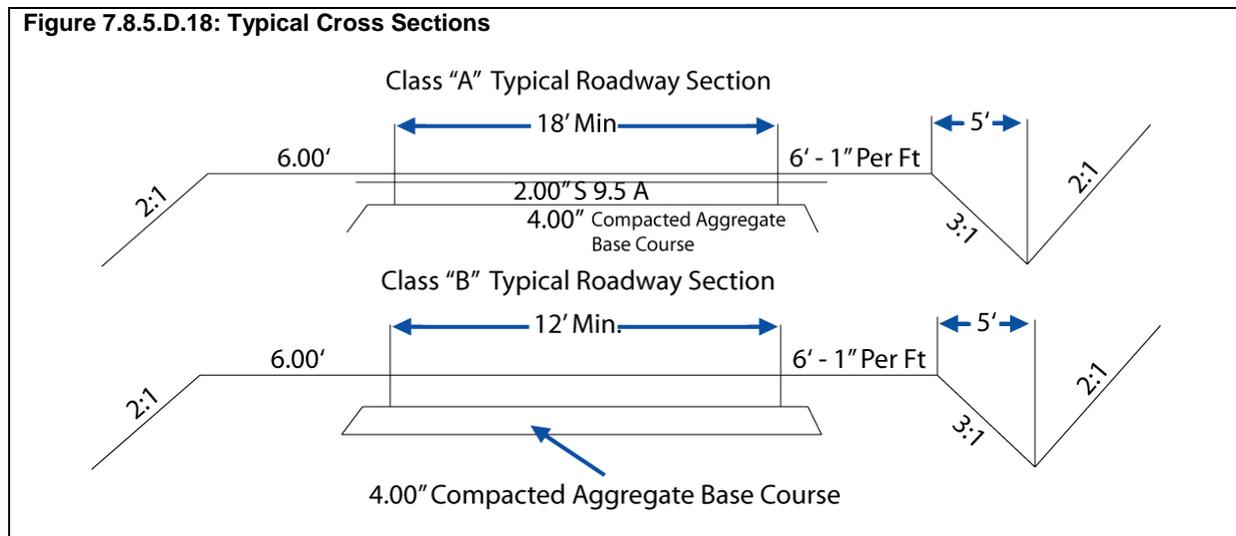


- (b) The right-of-way shall be designed with bends that will provide sufficient width to construct the road to the minimum radius. For example, a 90 degree bend in a 50-foot right-of-way will not provide enough area to construct a road 18-feet wide.
- (c) The right-of-way must include sufficient width for the travelway and the necessary shoulders, ditches and slopes.
- (d) A curve radius of less than 125-feet may be approved if all of the following conditions are met:

- (i) The road existed prior to the adoption of subdivision regulations or was approved as part of an earlier subdivision;
- (ii) Reconstruction of the existing road to meet a 125-foot curve radius is not feasible due to the extent of earthwork which would be required and/or the inability to reconfigure the existing right-of-way location due to ownership or the location of existing structures, wells or septic systems;
- (iii) Standards pertaining to road width and grade will be met;
- (iv) The subdivision can be approved with a Class B private road;
- (v) Documentation is received from the Staff Engineer that the proposed curve radius would provide for adequate vehicular access and circulation; and
- (vi) Documentation is received from the Department of Emergency Services stating that the proposed curve radius would provide access for the largest emergency vehicle expected to use the road.

(18) Typical Cross-Section

The drawings below illustrate the typical cross sections for Class A and Class B Private Roads.



(E) Compliance with Erosion and Sedimentation Control Regulations Required

Private road construction shall conform to the erosion and sedimentation control provisions of this Ordinance (see Section 6.15).

(F) Inspections and Certifications

- (1) Private road construction must be inspected and the construction certified in writing to the Orange County Planning Department by a North Carolina Professional Engineer.
- (2) The location of the travelway within the right-of-way must be certified to be within the platted private road right-of-way by a North Carolina Registered Land Surveyor.
- (3) The road must be inspected during construction so that any changes or improvements necessary to insure approval can be made before the stone is placed and the shoulders and ditches are seeded and mulched.

- (4) The subdivider or his/her representative must inform the professional making the certification prior to the start of construction and at intervals during construction when inspections are needed so that they can be scheduled.

TABLE 7.8.5.F: CERTIFICATION REQUIREMENTS FOR SUBDIVISION PRIVATE ROADS		
Maximum Number of Lots in Subdivision	3 or Fewer	4-12
Professional Engineer Road Construction Certification Required	No	Yes
Surveyor Certification Roadway in Platted Right-of-Way	Yes	Yes

- (5) Inspections by the Planning Department are made only to insure the following:
 - (a) That the road is built to the required dimensions;
 - (b) That the stone travelway is provided to the required width;
 - (c) That adequate drainage is provided;
 - (d) That any disturbed areas are seeded and mulched to establish permanent vegetation; and
 - (e) To verify that the required road sign is in place.
- (6) The subdivider is responsible for supervising construction and for quality control inspections for clearing and grubbing of the right-of-way, compaction of fill, construction materials, and so forth.
- (7) The subdivider or representative should employ a qualified grading contractor (and supervisor if necessary) to insure that the road is in the correct location and that acceptable methods and materials are used.
- (8) Bonds or letters of credit cannot be released or reduced until completion of the road is certified. Arrangements for payment between the subdivider and contractor are not the responsibility of Orange County.

7.8.6 Alleys

- (A) Alleys shall be required for lots used for commercial and industrial purposes except that this requirement may be waived where other definite and assured provision is made for service access.
- (B) Alleys shall not be provided in residential subdivisions unless necessitated by unusual circumstances.
- (C) The width of an alley shall be adequate for the purpose which it serves.
- (D) Dead end alleys shall be avoided where possible, but if unavoidable, shall be provided with adequate turn around facilities at the dead end as may be recommended by the Planning Board and approved by the Board of County Commissioners.

SECTION 7.9: RESERVATION OF SPACE FOR UTILITIES

7.9.1 Easements Required

- (A) Where several utilities are available or can be anticipated to serve a subdivision according to utility extension plans, utility easements, setbacks or other methods of providing services may be required for service in that subdivision.
- (B) Except where utilities may be located in approved alleys, easements, setbacks, or other methods, not less than six feet in width may be required on each side of rear and side lot lines.