

# **Wendell Falls Parkway Alternatives Analysis**

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## **I. Introduction**

The Capital Area MPO Transportation Advisory Committee (TAC) adopted the Capital Area MPO 2030 Long Range Transportation Plan (LRTP) on June 15, 2005. The 2030 LRTP contained the “Knightdale-Eagle Rock Extension” or “Southern Wendell Bypass” facility. This alignment was developed with input from staff of the Town of Wendell and NCDOT. This alignment was developed to replace the Third Street Extension project that was no longer feasible due to the development of a Town of Wendell park facility in the proposed right of way. The plan underwent significant public involvement prior to adoption, including three regional public workshops, press releases, and advertisements in the News & Observer, The Carolinian, and La Conexion. The Capital Area MPO received a request to amend the LRTP from the Town of Wendell. The Town had passed a resolution in support of an alternative alignment, submitted by Mercury Development as a part of the Wendell Falls Project. This alternative alignment utilized a more northerly route and proposed connecting via Richardson Rd. as opposed to Poole Rd. A Hybrid Alignment was developed by CAMPO Staff in an attempt to accomplish Mercury’s land development goals while mitigating impacts on residential structures along Richardson Rd. More information regarding the purpose and need for the roadway, as well as detailed maps can be found in the LRTP Amendment Public Information Packet. Descriptions of the alternatives and their associated impacts are included in section II. Figure II(a) at the end of this document is a table comparing the impacts outlined below.

## **II. Alternatives and Impacts**

### **Alternative A: Adopted LRTP Alignment**

*Description:* The adopted LRTP alignment intersects Martin Pond Rd. at Poole Rd. This alignment would require the upgrade of the substandard intersection of Martin Pond and Poole Rd. The developer would be responsible for constructing a four lane divided facility between the US 64 Bypass and the intersection of Martin Pond and Poole Rd.,. Improvements to the intersection of Martin Pond and Poole would include turn lanes and acceleration/deceleration lanes as deemed necessary by NCDOT. This requirement would be determined after the submission of a Traffic Impact Analysis (TIA). The remainder of the Southern Wendell Bypass would require that a larger section of Poole Rd. (see map) be improved to a four lane divided roadway and continued eastward to Stotts Mill Rd. and NC 231.

#### *Impacts on the Natural Environment*

*Phase I:* The improvements required include four stream crossings and the disruption of 6.01 acres of wetlands between the US 64 Bypass and the intersection of Martin Pond and Poole Rd.

*Build-out:* Eventual completion of the Southern Wendell Bypass would require an additional stream crossing.

### *Impacts on the Human Environment*

*Phase I:* The improvements required by the developer would include the relocation of one residential structure during the improvement to the intersection of Wendell Falls Parkway and Martin Pond and Poole roads.

*Build-out:* Eventual completion of the Southern Wendell Bypass would indirectly impact 3 additional residential structures, these structures would be located within 20ft of the anticipated ROW requirements.

### **Alternative B: Proposed Richardson Road Alignment\*\***

*Description:* The Richardson Road Alignment proposed by Mercury Development and supported by the Town of Wendell utilizes a northerly alignment that intersects with Martin Pond Rd. and requires the realignment of Richardson Rd, which is currently an unimproved gravel road. The developer would construct a four lane divided road from the US 64 Bypass to approximately 1000 feet east of Martin Pond Road, this four lane would be tapered down to a two lane until its intersection with Poole Rd. The remainder of the Southern Wendell Bypass would require the widening of the remainder of Richardson Rd, the extension of Richardson Road/Wendell Falls Parkway to Eagle Rock Road, then easterly to connect with the proposed LRTP alignment and continue to NC 231 (see map).

### *Impacts on the Natural Environment*

*Phase I:* Improvements required by the developer include two major stream crossings (considered in the impact analysis), one minor stream crossing (not considered an impact) and the disruption of 5.41 acres of wetlands.

*Build-out:* Eventual completion of the Southern Wendell Bypass would require limited impacts on the natural environment including two minor stream crossings that are not considered impacts.

### *Impacts on the Human Environment*

*Phase I:* Improvements required by the developer would include the relocation of a potential historic residence (the William Richardson Homestead), and accompanying outbuildings. As proposed the initial improvements to Richardson Road would indirectly impact an additional residence (this house would be within 20ft of the two lane road once it is improved, but would have to be relocated when the road is improved to a four lane divided section).

*Build-out:* Eventual completion of the Southern Wendell Bypass would require the taking or relocation of two residences (one which was indirectly impacted during the initial improvements). The widening of the remainder of Richardson to a four lane divided section and the extension eastward to Eagle Rock would indirectly impact five additional homes.

\*\*The initial designs submitted by Mercury Development are for a 35 mph design speed, NCDOT has stated the requirement for a 50 mph design speed. Based on the changes necessary to increase this design speed initial improvements to Richardson Rd. may require the relocation of two houses along Richardson Rd.

### **Alternative C: The Hybrid Alignment**

Description: Capital Area MPO staff has proposed a third alignment that follows the Proposed Richardson Rd Alignment until approximately 1000ft west of Martin Pond Rd, and then bears south east to meet with Martin Pond Rd and eventually Poole Rd. The developer would be required to realign the Poole Rd to intersect with the Hybrid Alignment and make the appropriate improvements to Martin Pond Rd and Poole Rd including turn lanes and acceleration/deceleration lanes. The benefits of this alignment would be to accommodate the land use called for in the Wendell Falls Master Plan while avoiding impacts on residences that the Richardson Road Alignment would have and avoiding the additional wetlands impacts the Adopted LRTP Alignment would have.

#### *Impacts on the Natural Environment*

*Phase I:* Improvements required by the developer include 3 stream crossings and 5.41 acres of wetlands disturbed.

*Build-out:* An additional stream crossing would be necessary when the Southern Wendell Bypass is continued east toward Eagle Rock Rd.

#### Impacts on the Human Environment

*Phase I:* There would be no direct impacts on residential structures.

*Build-out:* Eventual completion of the Southern Wendell Bypass would indirectly impact three residential structures (homes would be within 20ft of the ROW).

### **Additional Alternatives**

There may be additional alternatives that are feasible, including the connection to and improvement of Richardson Road in concert with the reservation of Right of Way for the eventual construction of the LRTP or Hybrid Alignment of the Southern Wendell Bypass.

**Figure IIa: Wendell Falls Parkway Alternatives Analysis Impacts Matrix**

Category of Comparison	Units	Richardson Alignment (Phase I)	Richardson Alignment (Total)	Adopted CAMPO LRTP Alignment (Phase I)	Adopted CAMPO LRTP Alignment (Total)	Hybrid Alignment (Phase I)	Hybrid Alignment (Total)
Alignment Length	MI	2.47	7.16	2.17	7.07	2.24	7.16
Stream Crossings	#	3**	3**	3	5	4	5
Wetland Impacts	AC	5.41	5.41	6.01	6.01	5.41	5.41
Use of Existing Infrastructure	MI (LF)	-	.76 (4029)	-	0.19 (1003)	-	0.19 (1003)
Use of Existing Thoroughfare	LF	-	2000	-	1450	-	900
Use of Existing ROW	AC	-	9.66	-	2.13	-	1.62
Increase in Impervious Area	AC	-	43.35	-	44.06	-	44.62
Homes within ROW	#	1	3*	1	1	0	0
Homes within 20' of ROW	#	2	5	0	3	1	3
Impacted Farmland	AC	-	8.29	-	9.52	-	9.99
Impacts to Open Space Parcel	AC	-	0.00	-	7.88	-	7.88

\*The Developer has consulted with 2 of these owners in an effort to mitigate the impacts of the Richardson Road improvements. The Developer has offered to relocate one house and has designed the alignment to avoid the second house for Phase I improvements, and has offered to relocate the second house for Phase II improvements, at which time the road will be four-lane.

\*\*The Developer proposes to span one of these crossings, which will result in zero impact to the stream and buffer.