



## TECHNICAL MEMORANDUM

TO: Sarah Coakley, Regional Planner, Regional Systems Planning  
DATE: 6/13/2019  
FROM: Bill Dougherty, JMT  
PROJECT: Henlopen TID; Segment 34: Airport Road  
JMT JOB NO.: 16-0643-002  
RE: Concept Assumptions and Summary  
CC: Marc Cote, Mir Wahed, Brad Herb

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Site Visit Date: 01/11/2018  
Concurrence Meeting Date: 01/23/2018  
PD South Review Meeting Date: 6/12/19

### *Existing Conditions*

Airport Road (S275A) is a 0.55-mile local road with an Investment Strategy Level 2 and an ADT of 10,042 (2012). An additional 0.35-mile extension of Airport Road is included in this concept plan package. As previously coordinated with surrounding developments, the extension will complete the link between Old Landing Road and the stub road created by the Beebe Health Campus on SR 24 (John J. Williams Hwy). The extension was planned to utilize the footprint of an existing Sterling Crossing subdivision street, Coppers Drive N, and require the modification of the internal street layout/connection. Two alternatives of the extension were developed which did not utilize Coppers Drive N. Airport Road, between Old Landing Road and SR 1, is a 21' wide (variable at intersection) asphalt roadway with a posted speed of 35 mph. The land adjacent to existing Airport Road is a mix of residential and commercial use. A landscape business is located on the northeast corner of the Old Landing Road and Airport Road intersection having wide unchannelized accesses along both roads. As part of this concept, access consolidation and upgraded parking are part of the recommendations not listed in recommendations.

### *Existing Airport Road General Site Conditions*

- *Road Ratings: OPC Index (38.0)*
- *21' wide asphalt pavement*
- *Centerline striped*
- *Open drainage*
- *Speed limit 35 mph, Design Speed 40 mph*

### *Design Elements*

- A new portion of Airport Road has been added to complete the connection from Old Landing Road to SR 24 through the Beebe Medical Campus.
- Although the current portion of Airport is posted at 35 mph with a design speed of 40 mph, the alignment of the Airport Road extension has been designed to meet a design speed of 45 mph while minimizing impacts to new development.
- The two alternative alignments of the Airport Road extension have been designed to meet a design speed of 30 mph.

### *Utility Conflicts*

- Wood utility poles currently run along the north side of existing Airport Road from Old Landing Road for about 800' before crossing to the south side of the road where it continues to SR 1. The attached concept proposes the realignment of the utility poles as needed to be outside of the prescribed clear zone and sidewalk.

### *Potential for Future Development:*

- The new extension of Airport Road has a high potential for development. The existing portion of Airport road between Old Landing Road and SR 1 is completely developed with residential and commercial properties and has little potential for additional development.

### *Multi-modal Analysis*

- The roadway currently has no pedestrian and/or bicycle facilities.

### *Recommendations*

- Existing Airport Road:
  - Reconstruct existing 21' asphalt roadway to provide 32' asphalt pavement roadway (2 - 11' travel lanes with 5' shoulders). Hold the northerly edge of existing Airport Road and perform right side widening between Old Landing Road and SR 1.
  - Construct a sidewalk on the northerly side of Airport Road between Old Landing Road and SR 1 to service most of the residential and commercial development in the corridor.
  - Total cost of the existing alignment improvements is estimated as \$5,127,890.
- Proposed Extension of Airport Road (Preferred Alternative)
  - Speed limit 40 mph, Design Speed 45 mph
  - Construct roadway extension to include 11' travel lanes and 5' shoulders.
  - On western approach to SR24, install 2-11' left turn lanes, 1-11' thru lane, 5' bike lane, and an 11' right turn lane.

- Include a right turn lane and center left turn lane at two Beebe Medical Campus entrances.
- Add sidewalk on the south side of Airport Road to tie into the pedestrian facilities previously installed by the Beebe Medical Campus and Sterling Crossing subdivision.
- Reconstruct Copper Drive N as a segment of the Airport Road extension.
- Sterling Subdivision changes include:
  - Create new intersections on proposed extension of Airport Road with Copper Drive N and Bronze Street.
  - Ending Mercury Drive with a hammerhead turnaround.
  - Cul-de-sac Copper Drive N leg closest to Old Landing Road to avoid conflicts with auxiliary lanes approaching Old Landing Road.
- The cost of improvements for the new extension is estimated at \$6,216,808.
- Proposed Extension of Airport Road - Alternative A:
  - Speed limit 25 mph, Design Speed 30 mph
  - Construct roadway extension on new alignment to include 11' travel lanes and 5' shoulders. Roadway will not utilize Copper Drive N.
  - On western approach to SR24, install 2-11' left turn lanes, 1-11' thru lane, 5' bike lane, and an 11' right turn lane.
  - Include a right turn lane and center left turn lane at two Beebe Medical Campus entrances.
  - Add sidewalk on the south side of Airport Road to tie into the pedestrian facilities previously installed by the Beebe Medical Campus and Sterling Crossing subdivision.
  - Construct Cobalt Road Extension to include 11' travel lanes and 5' shoulders with 5' sidewalk located on both sides of extension. Include a right turn lane and center left turn lane at Cobalt Road Extension. Remove Sterling Subdivision on Old Landing Road.
  - The cost of improvements for the Alternative A extension of Airport Road is estimated at \$5,457,725.
- Proposed Extension of Airport Road - Alternative B:
  - Speed limit 25 mph, Design Speed 30 mph
  - Construct roadway extension on new alignment to include 11' travel lanes and 5' shoulders. Roadway will not utilize Copper Drive N.
  - On western approach to SR24, install 2-11' left turn lanes, 1-11' thru lane, 5' bike lane, and an 11' right turn lane.
  - Add sidewalk on the south side of Airport Road to tie into the pedestrian facilities previously installed by the Beebe Medical Campus and Sterling Crossing subdivision.
  - Construct entrance to Sterling Crossing at Mercury Drive on northern side with 5' sidewalks. Remove Sterling Subdivision on Old Landing Road.

- Construct cul-de-sac on Copper Drive N. Extend sidewalk from cul-de-sac to sidewalk on Bronze Street.
- The cost of improvements for the Alternative B extension of Airport Road is estimated at \$6,377,228.
- A new traffic signal is proposed at the intersection of Airport Road and SR 24.
- Recommend installing lighting at the Airport Road and SR 24 intersection.
- A new traffic signal is proposed at the intersection of Airport Road and Old Landing Road. The signal will be installed as part of the Old Landing Road improvements (Segment 30).
- Recommend installing lighting at the Airport Road and Old Landing Road intersection. The lighting will be installed as part of the Old Landing Road improvements (Segment 30).
- Provide a channelized access to the landscape business (JDW Properties, LLC) along Airport Road. The roadway improvements impact the business's current parking so upgraded off street parking is proposed.
- New signal at Airport Road and Miller Road/Entrance Road.
- Realignment of Entrance Road with Miller Road.
- Realignment of commercial entrances on each side of existing Airport Road along horizontal curve near approach to SR 1.
- Recommend Airport Road improvements are a high priority for implementation.
- See attached concept plans for more information.