Engineering Planning

*Groundbreaking by Design.*

# MEETING MINUTES

Project: KY 92 Programming Study
Whitley County

Purpose: Project Team Meeting No. 1

Place: Virtual Meeting

Meeting Date: September 23, 2021 at 1:30 PM

Prepared By: Qk4

Participants:

| | |
|---|---|
| Chris Jones | KYTC D11 Chief District Engineer |
| Sherri Chappell | KYTC D11 Design Project Manager |
| Chris Harris | KYTC D11 District Traffic Engineer |
| Joshua Higgins | KYTC D11 District Environmental Coordinator |
| Mikael Pelfrey | KYTC CO Planning Director |
| Beth Niemann | KYTC CO Planning Liaison |
| Steve De Witte | KYTC CO Planning |
| Jay Balaji | KYTC CO Planning Forecast Model Team Lead |
| Kevin Sandefur | KYTC CO Design Liaison |
| Rebecca Thompson | Qk4 Project Manager |
| Jeremy Lukat | Qk4 Planning |
| Theresa Owen | Qk4 Planning |

Rebecca Thompson opened the meeting, welcoming attendees. The purpose of the meeting is to review the existing conditions information for the study, which focuses on the KY 92/Penny Lane intersection immediately west of the I-75 interchange. Close spacing, high crash rates, and anticipated development are key issues for the study.

There were 43 crashes within 250 feet of the study intersection during 2017-2020, including no fatalities and seven injury collisions. Angle crashes represent 65% of the total, followed by same direction sideswipes (21%). The majority of KY 92 through the study limits demonstrates a Level of Service of Safety (LOSS) 3 or 4, indicating more crashes are occurring than expected. September 2021 traffic counts show 15,400 vehicles per day (vpd) using KY 92 near Penny Lane, dropping to 4,700 vpd near Waterpark Way. Counts show the westbound left turn onto Happy Hollow Road is very busy, carrying over 400 semi-trucks during the 12-hour data collection period. Microsimulation shows queues for this movement during the peak but calculates overall intersection operations at Level of Service (LOS) C or better for both the intersection and interchange.

Environmental red flags include floodplains in the western portion of the study area, bat habitat, and a few possible hazmat sites. A apartment complex with potentially low-income residents and a farmhouse over 50 years in age may require further consideration if a new connector road option is advanced.

Qk4 presented two new connector concepts, creating a new alignment link between KY 92 and Penny Lane near the health department. One option closes the Penny Lane connection west to the campground while the other creates a four-leg intersection at the health department's west entrance. Both alignments are intended to minimize stream impacts and avoid the nearby farmhouse. Both are likely to impact utilities running along KY 92 (water, gas, and overhead lines).

- District 11 will coordinate with the mayor and campground representatives to get their feedback on closing the connection with Penny Lane.
- A two-lane typical section with sidewalks is appropriate to consider; there are sidewalks along KY 92 and none along Penny Lane today.
- Qk4 will develop construction cost estimates for both connector options. District 11 will develop right-of-way and utility phase estimates.

A range of options at the KY 92/Penny intersection have been considered. Severing the Penny Lane connection to KY 92 or restricting traffic to northbound only are likely to face community opposition. An extra KY 92 lane between the southbound off-ramp and Penny Lane would increase conflict points for traffic turning left onto Happy Hollow Road. Access management along KY 92 would add value but is beyond the scope. Discussion focused on the solution shown in **Figure 1** that relies on a raised median to restrict left turns for three approaches and eliminate thru movements across KY 92.


**Figure 1: Proposed KY 92/Penny Reconfiguration Concept**

Questions brought up during the meeting:

- Are southbound lefts from the hotel still feasible? The hotel has a second driveway just off the map that would allow left turns plus the median limits could be adjusted.
- What happens to northbound cars from Happy Hollow who want to go thru/left? This represents 7-12 cars during the peak hours; they are assumed to turn right with a U-turn downstream east of I-75. Qk4 will investigate how many properties rely on Happy Hollow Road for their access.

- How long is the turn bay to Happy Hollow Road? The sketch mimics the same length as existing. It may be possible during future design phases to steal some length from the existing dual lefts for northbound I-75 to accommodate queues.
- Another option converts the southernmost section of Penny Lane to one-way (northbound only) but this scenario is likely to face local opposition.
- Qk4 will confirm if trailers can still access the Pilot gas pumps with the middle driveway closed.
- Will the KY 92/Penny reconfiguration concept reduce crashes? Based on the number of angle crashes, reducing conflict points is likely to reduce crashes.

Qk4 will provide PDF copies of the concepts presented to District 11 to facilitate coordination efforts. Concept development will continue—preparing approximate disturb limits, cost estimates, and microsimulation networks. The next project team meeting should occur in 3-4 weeks, followed by an abridged study report.

With no further comments or discussion items, the meeting concluded at 2:15.

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# MEETING MINUTES

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|---|---|
| Project: | KY 92 Programming Study<br>Whitley County |
| Purpose: | Project Team Meeting No. 2 |
| Place: | Virtual Meeting |
| Meeting Date: | October 25, 2021 at 10:00 AM |
| Prepared By: | Qk4 |

Participants:

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|---|---|
| Chris Jones | KYTC D11 Chief District Engineer |
| Sherri Chappell | KYTC D11 Design Project Manager |
| Chris Harris | KYTC D11 District Traffic Engineer |
| Joshua Higgins | KYTC D11 District Environmental Coordinator |
| Brian Gray | KYTC D11 |
| Mikael Pelfrey | KYTC CO Planning Director |
| Beth Niemann | KYTC CO Planning Liaison |
| Steve De Witte | KYTC CO Planning |
| Jay Balaji | KYTC CO Planning Forecast Modal Team Lead |
| Connor Schurman | KYTC CO Planning |
| Kevin Sandefur | KYTC CO Design Liaison |
| Rebecca Thompson | Qk4 Project Manager |
| Jeremy Lukat | Qk4 Planning |
| Theresa Owen | Qk4 Planning |

The purpose of the meeting is to review the technical analyses for the study, which focuses on the KY 92/Penny Lane intersection immediately west of the I-75 interchange. Close spacing, high crash rates, and anticipated development are key considerations. Bicycle/pedestrian connectivity is also a need but beyond the scope of this effort.

Qk4 developed two new connector concepts, creating a new alignment link between KY 92 and Penny Lane near the health department. Two 12-foot lanes, curb/gutter, and sidewalks along both sides are assumed. Both options result in similar traffic impacts, similar costs, and similar impacts to utilities.

- Option 1, four-leg intersection at western health department driveway
- Option 2, gentle curve along Penny with no vehicular connection west to Waterpark Way

Qk4 also presented three variations for the existing KY 92/Penny Lane intersection to encourage traffic to use the new connection. Penny Lane converts to a one-way operation (northbound only) north of Balltown Road in each scenario.

- Option A, no changes to existing configuration

- Option B restricts the Penny Lane approach to right-in/right-out traffic only
- Option C (also discussed at the first team meeting) restricts Penny Lane and Happy Hollow Road to right-turn only movements for traffic trying to access KY 92. Eastbound lefts onto Penny Lane are also eliminated.

Traffic operations for each are summarized in **Table 1**. As shown, neither the No-Build nor Option A provide adequate capacity to handle increased traffic volumes. Options B and C streamline operations although a few movements operate at LOS E or F in one or both peak hours. In 2045, maximum queue lengths for the westbound left onto Happy Hollow Road approach 800 feet in the PM peak though average queue lengths are substantially shorter—around 120-150 feet.

**Table 1: Traffic Operations during AM/PM Peaks by Scenario**

| Scenario | AM LOS | PM LOS | Movements at LOS E/F |
|---|---|---|---|
| 2021 Existing | SPUI: B<br>Penny: A-B<br>Happy: A-C | SPUI: C<br>Penny: A-B<br>Happy: B-E | SPUI: WBL<br>Penny/Happy: NBT, WBL |
| 2045 No-Build (includes Keeneland) | SPUI: B<br>Penny: A-B<br>Happy: A-C | SPUI: C<br>Penny: F<br>Happy: B-C | SPUI: WBL<br>Penny/Happy: SBL, SBR |
| Option 1A or 2A<br>One-way section of Penny Ln with Existing Layout at KY 92/Penny Ln | SPUI: C<br>Penny: A-C<br>Happy: C-E | SPUI: C<br>Penny: A-F<br>Happy: B-D | SPUI: WBL, NBL<br>Penny/Happy: WBL, NBT, SBL |
| Option 1B or 2B<br>One-way section of Penny Ln with KY 92/Penny Ln Right-In/Right-Out | SPUI: C<br>Penny: A<br>Happy: C-E | SPUI: C<br>Penny: A<br>Happy: C-E | SPUI: WBL, NBL<br>Penny/Happy: WBL, NBL, NBT |
| Option 1C or 2C<br>One-way section of Penny Ln with Penny Ln & Happy Hollow Rd Turn Restrictions | SPUI: C<br>Penny: A<br>Happy: B | SPUI: C<br>Penny: A<br>Happy: B | SPUI: WBL, NBL<br>Penny/Happy: WBL |

The new connector is assumed to be a two-lane facility, connecting to KY 92 with the new southbound approach stop-controlled. Options B and C divert more traffic to the new KY 92/Connector intersection; during the PM peak hour, the southbound left turn onto KY 92 operates at LOS E in either of these scenarios. Future signalization or a roundabout could improve operations.

The project team liked Options 2 and B but agreed no scenarios should be eliminated at this stage. The report should present options—including project sheets for all build scenarios—with no formal recommendations.

Sherri will confirm if she has any utility mapping she can share with Qk4 to add to study exhibits.

With no further comments or discussion items, the meeting concluded at 10:25.