

## **APPENDIX A**

### **EXHIBITS**

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- Exhibit 1—Analysis Section and Recommendations**
- Exhibit 2—Traffic Volumes, Level of Service, and Crash Data**
- Exhibit 3—Environmental Footprint**

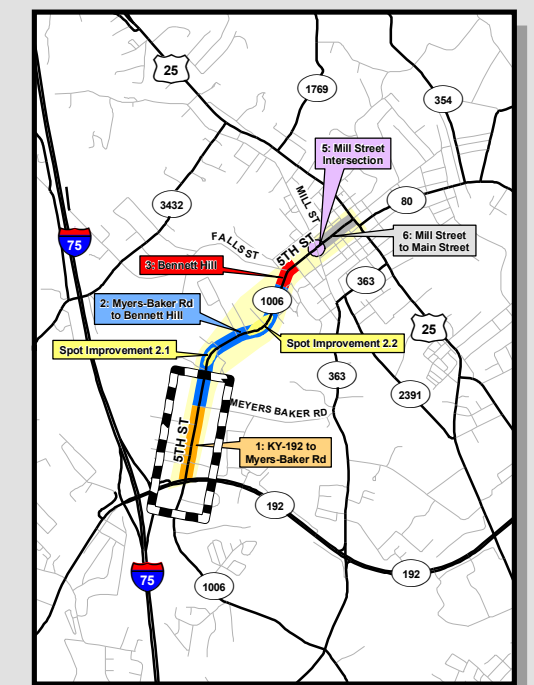
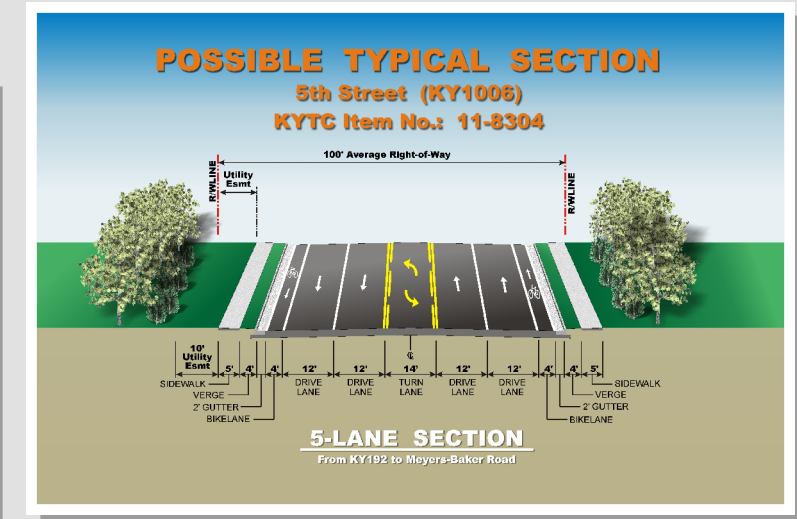


# Analysis Section 1: KY 192 to Meyers-Baker Road (0.35 mile)



**Alternative Concept A:** 3 Lanes with Center Two-Way Left-Turn Lane —This alternative typical section has an 80-foot-wide average right-of-way width with two 12-foot-wide driving lanes, a center 14-foot-wide two-way left-turn lane, a 4-foot-wide bicycle lane on each side, curbs and gutters, a 5-foot-wide sidewalk on each side, and a 15-foot-wide utility easement on one side. The estimated cost of this concept is \$2.44 million.

**Alternative Concept B:** 5 Lanes with Center Two-Way Left-Turn Lane —This alternative typical section encompasses a 100-foot-wide average right-of-way width with four 12-foot-wide driving lanes, a center 14-foot-wide two-way left-turn lane, a 4-foot-wide bicycle lane on each side, curbs and gutters, a 5-foot-wide sidewalk on each side, and a 15-foot-wide utility easement on one side. The estimated cost of this concept is \$4.24 million.



VICINITY MAP

**Recommended Project:** Alternative Concept B  
**Timeframe:** Prior to Construction of “Corridor Border”

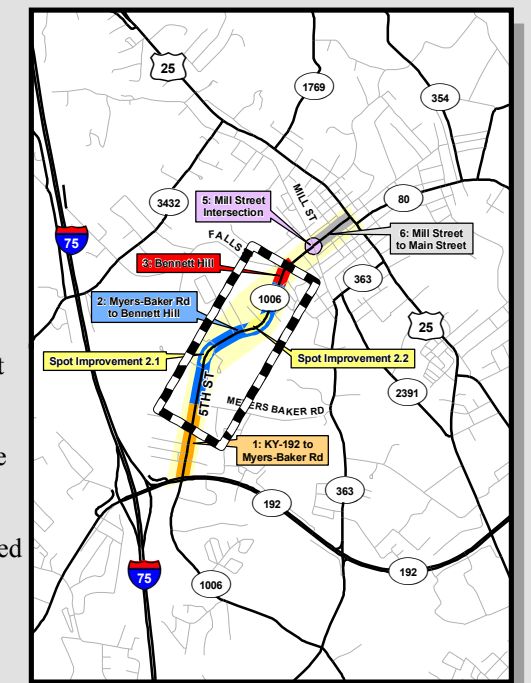
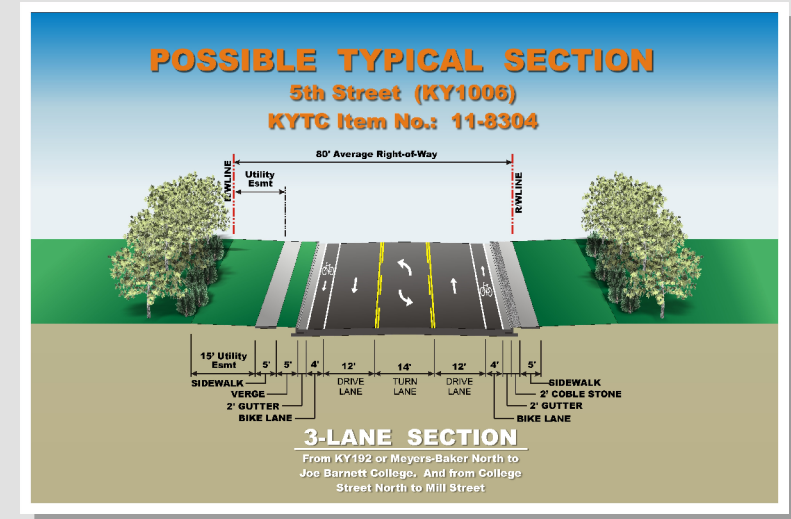
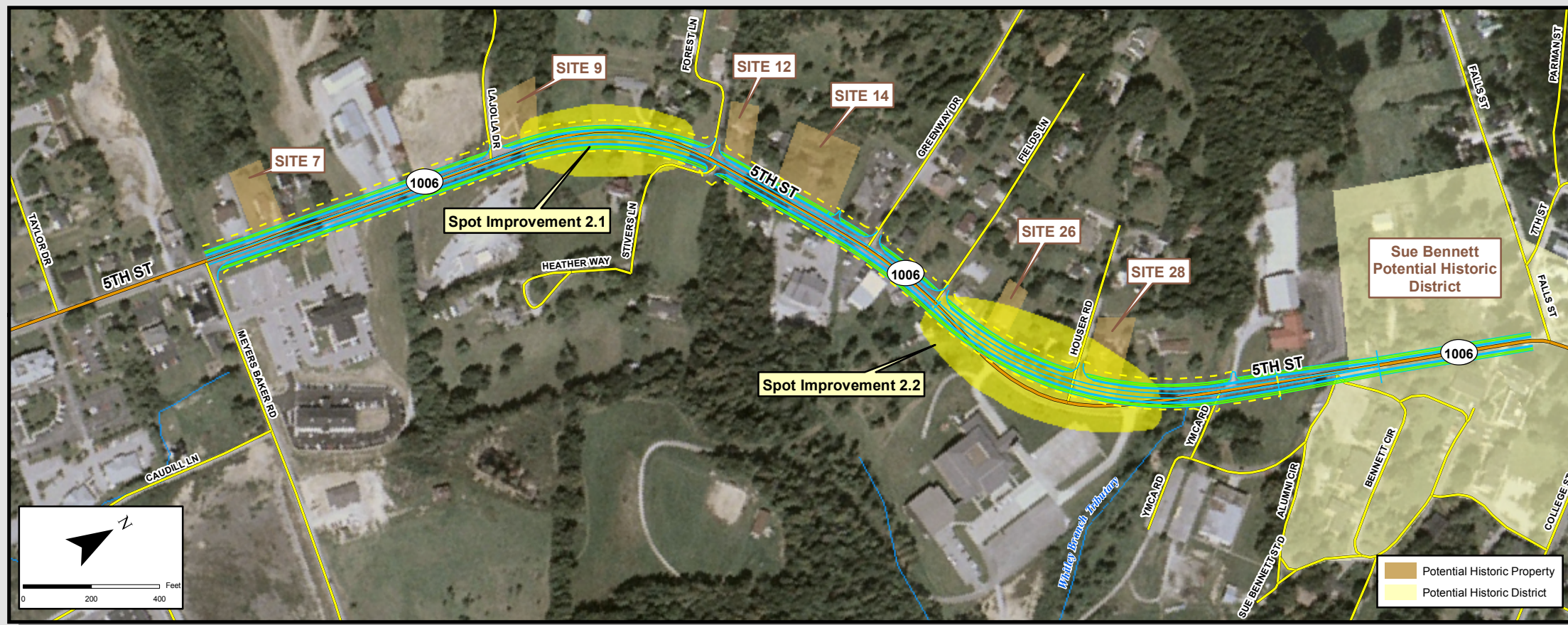


Exhibit 1  
Analysis Section 1  
KY 192 to Meyers-Baker Road  
5th Street (KY 1006) Alternatives Study  
Laurel County, Kentucky  
KYTC Item No. 11-8304.00  
JULY 2008

Sheet 1 of 4



# Analysis Section 2: Meyers-Baker Road to Bennett Hill (0.70 mile)



VICINITY MAP

**Alternative Concept A:** 3 Lanes with Center Two-Way Left-Turn Lane —This alternative typical section has an 80-foot-wide average right-of-way width with two 12-foot-wide driving lanes, a center 14-foot-wide two-way left-turn lane, a 4-foot-wide bicycle lane on each side, curbs and gutters, a 5-foot-wide sidewalk on each side, and a 15-foot-wide utility easement on one side. The estimated cost of this concept is \$4.99 million.

**Alternative Concept B:** 5 Lanes with Center Two-Way Left-Turn Lane —This alternative typical section encompasses a 100-foot-wide average right-of-way width with four 12-foot-wide driving lanes, a center 14-foot-wide two-way left-turn lane, a 4-foot-wide bicycle lane on each side, curbs and gutters, a 5-foot-wide sidewalk on each side, and a 15-foot-wide utility easement on one side. The estimated cost of this concept is \$7.08 million.

**Recommended Project:** Alternative Concept A  
**Timeframe:** After Construction of “Corridor Border”

**Spot Improvement 2.1:** At Forest Lane/ Stivers Lane (MP 5.99)- While the development of either Alternative Concept A or B in Analysis Section 2 would result in improvements at this site, implementation of spot improvements at this location would accelerate a positive change to the transportation system. These proposed spot improvements could be implemented in two phases if necessary. First phase: “cut back” the side hill to improve sight distance around the existing horizontal curve. Second phase: reconstruct the horizontal curve to reduce the degree of curvature. These actions could be taken consecutively or concurrently. The estimated total cost of this concept is \$2.38 million.

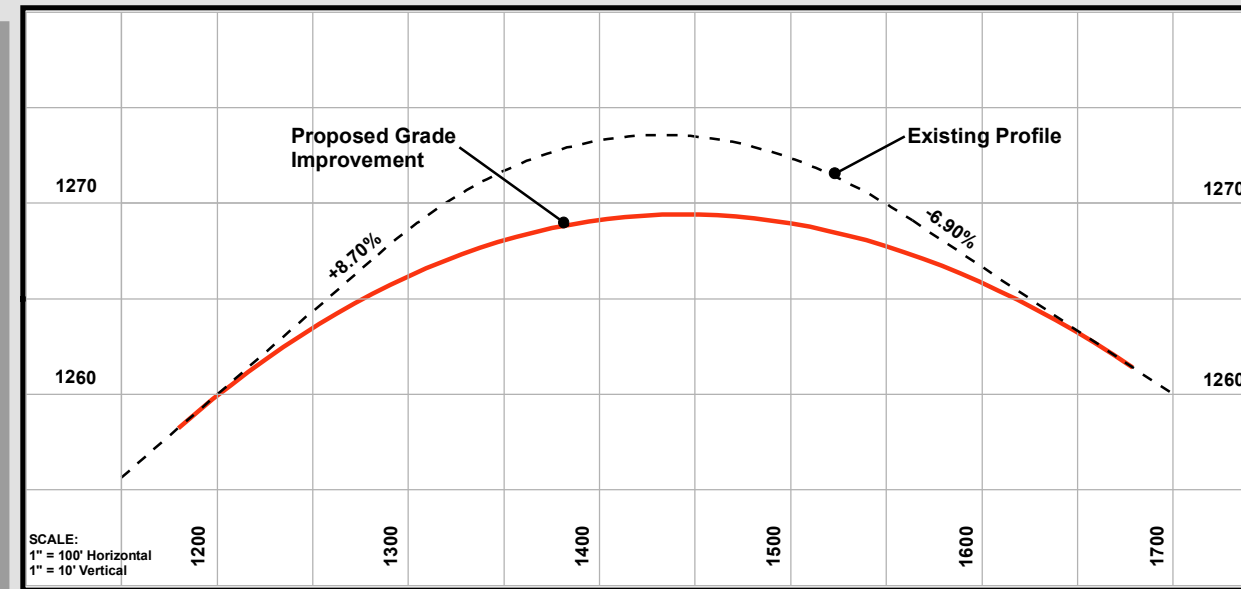
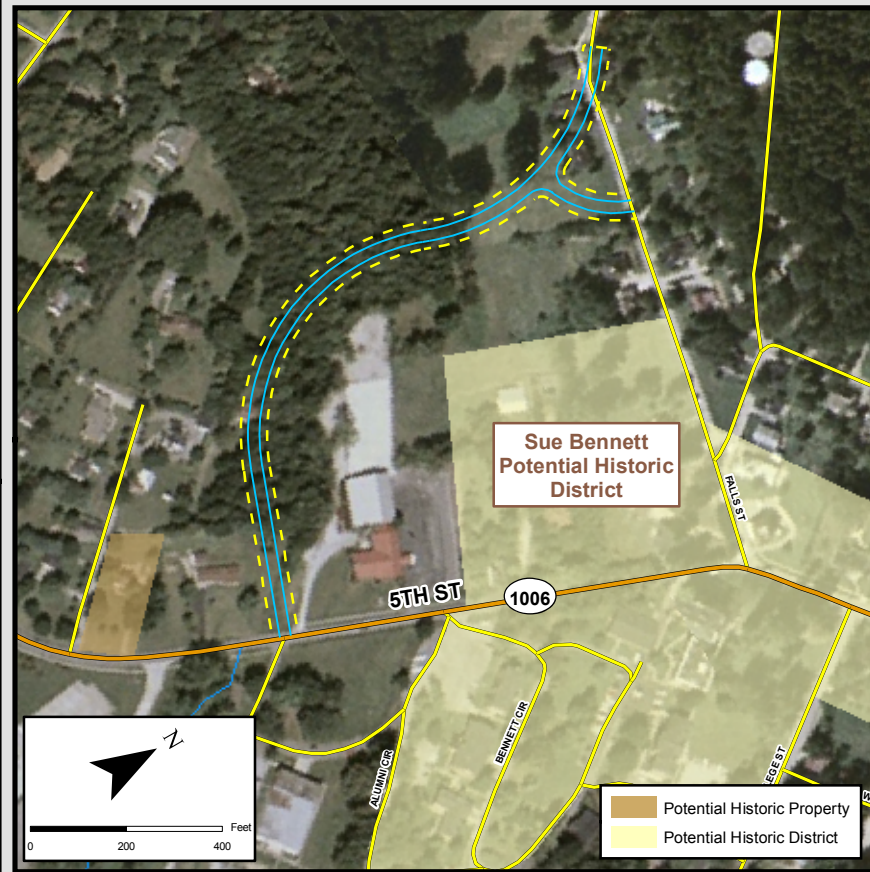
**Spot Improvement 2.2:** At First Baptist Church—While the development of either Alternative Concept A or B in Analysis Section 2 would result in improvements at this site, implementation of transportation system improvements between MP 6.15 and MP 6.30 would address sight distance restrictions at the two entrances to the First Baptist Church and could be implemented in addition to or independent of other Analysis Section 2 improvements between Meyers-Baker Road and Bennett Hill. The estimated cost of this concept is \$2.70 million. Three concepts were considered at this location:

- \* Improve Curve and Hill as Spot Improvement
- \* 3 Lanes with Center Two-Way Left-Turn Lane
- \* 5 Lanes with Center Two-Way Left-Turn Lane

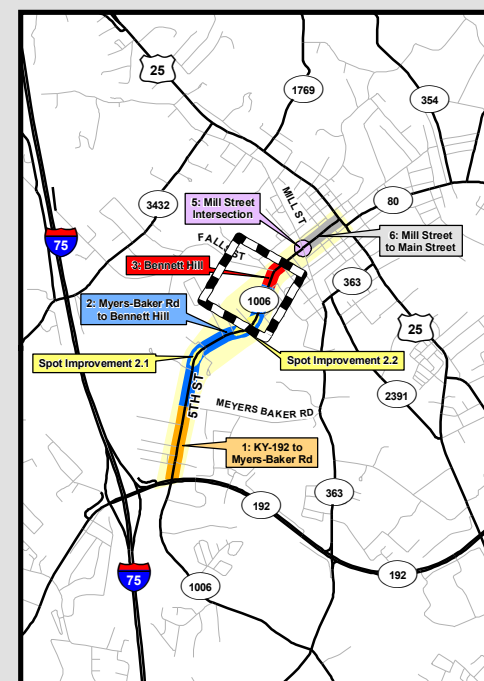
**Recommended Project:** Spot Improvement 2.1 First Phase  
**Timeframe:** As Soon As Possible



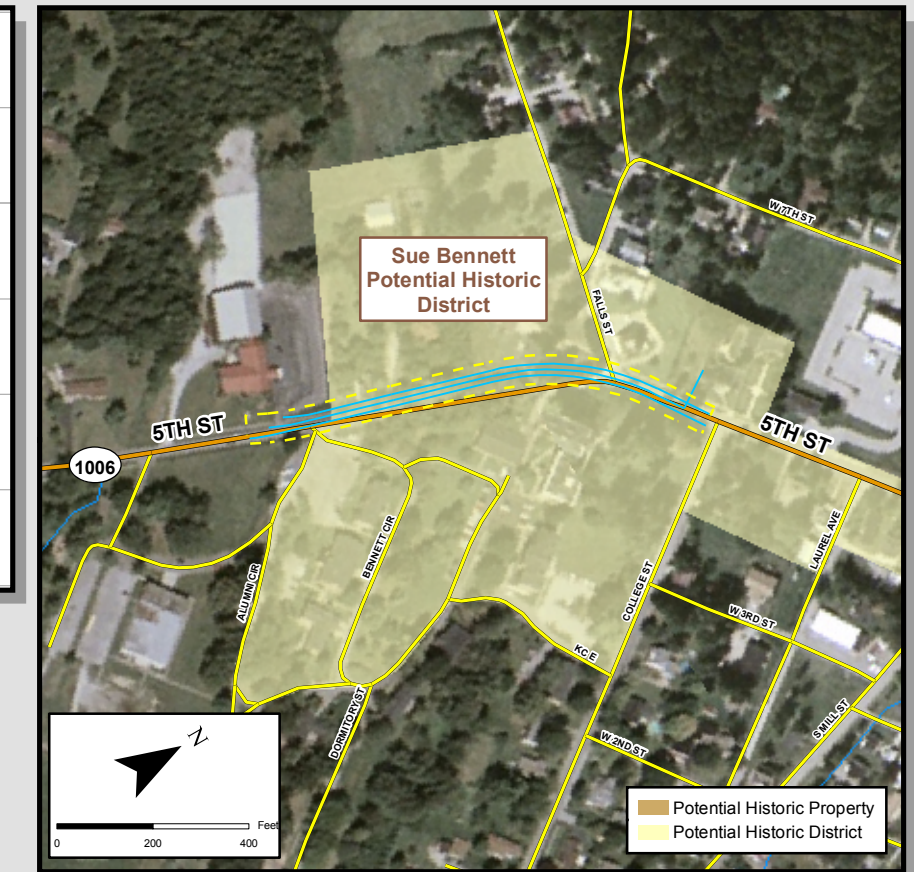
# Analysis Section 3: Bennett Hill (0.15 mile)



**Alternative Concept B:** Improve Vertical Alignment—This alternative concept would improve safety along Bennett Hill and at the Falls Street intersection by lowering the grade and increasing the sight distance to meet current design standards. This concept would require closure of 5th Street to through traffic during construction. It is the least costly alternative concept in Analysis Section 3, with an estimated cost of just over \$1.0 million.



VICINITY MAP



**Alternative Concept C:** Relocate 5th Street to the west in the vicinity of Falls Street—This concept would avoid relocating Falls Street, and could likely be implemented without closing 5th Street for as long a period of time as would be necessary using the Alternative Concept B. The estimated cost of this concept is \$1.41 million.

**Alternative Concept A:** Relocate Falls Street to south side of Community Christian Church—This concept would eliminate the problems caused by sight distance restrictions at the Falls Street intersection with 5th Street by relocating Falls Street to the south. A new intersection with 5th Street would be developed approximately 0.2 mile south of the existing Falls Street intersection, opposite the entrance to the YMCA. The existing Falls Street access to 5th Street would be closed and converted to a cul-de-sac near the multi-family dwelling unit at the northwest corner of Falls Street and 5th Street. The estimated cost of this concept is \$1.50 million.

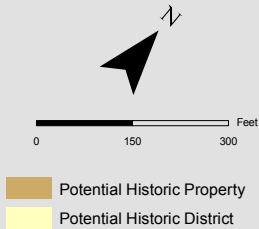
**Recommended Project:** **Alternative Concept B or Alternative Concept C**  
*(Consider Concept A if B or C becomes problematical)*  
**Timeframe:** As Soon As Possible



# Analysis Section 5: Mill Street Intersection



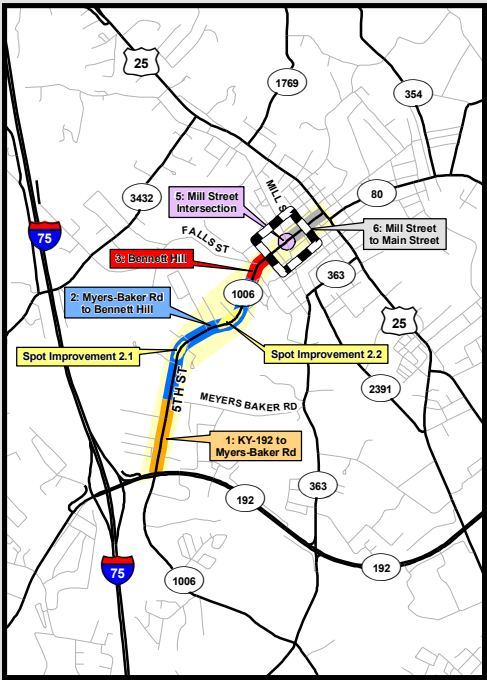
**Alternative Concept A:** Add left-turn lane on northbound 5th Street, plus construct a slight realignment of Mill Street on the west side of 5th Street to align with the east side. The estimated cost of this concept is \$430,000.



**Alternative Concept B:** Add left-turn lanes on northbound 5th Street and on westbound Mill Street by widening Mill Street toward the north. The estimated cost of this concept is \$1.27 million



**Alternative Concept C:** Add left-turn lanes on northbound 5th Street and westbound Mill Street by shifting both legs of Mill Street to the south. The estimated cost of this concept is \$800,000.



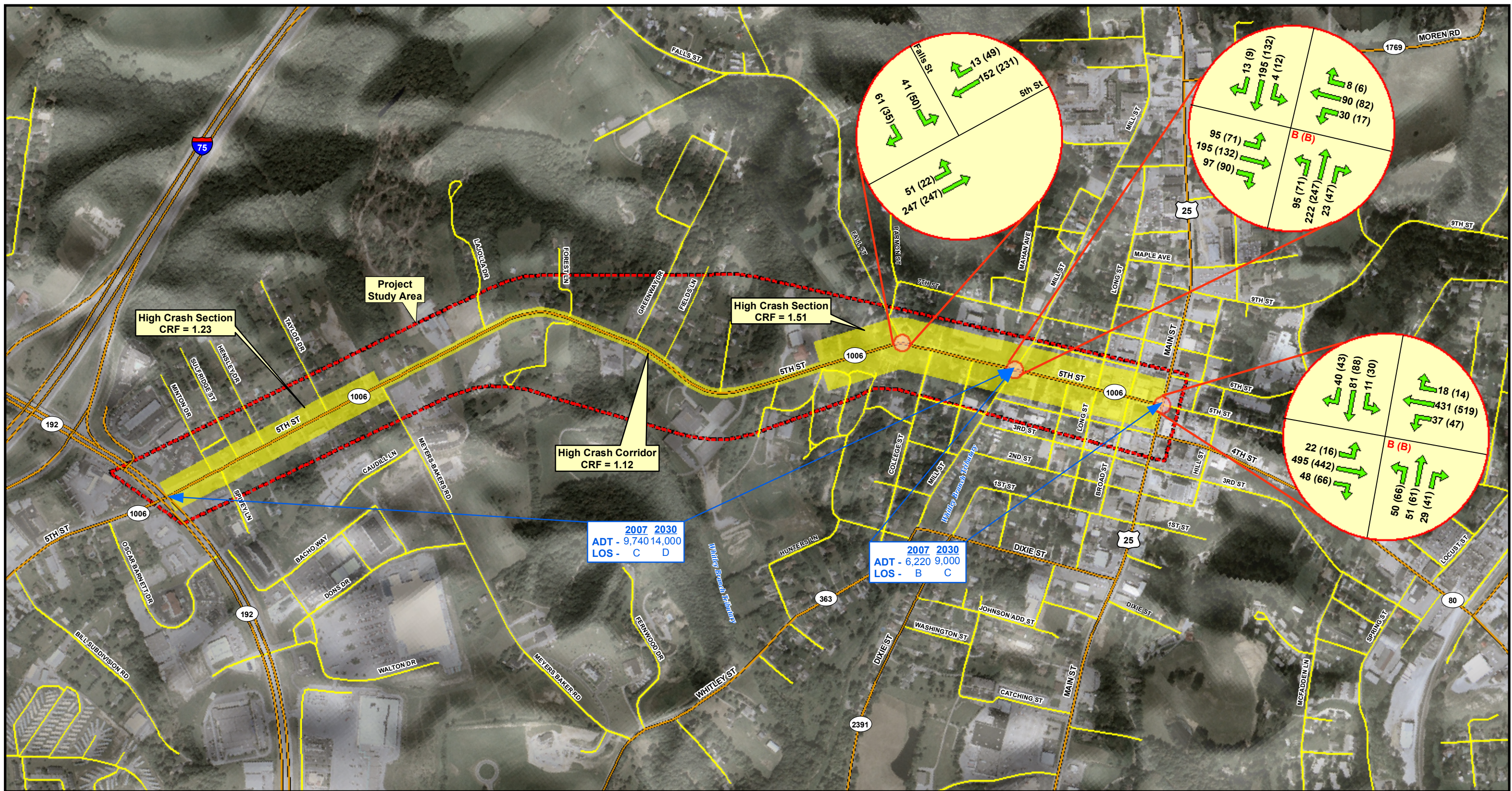
VICINITY MAP

**Alternative Concept D:** Construct a Roundabout— The Insurance Institute for Highway Safety has estimated that roundabouts exhibit 40% fewer crashes than traditional intersections and 80% fewer injury crashes due to a reduction in vehicular speed and the number of vehicular conflict points. The estimated cost of this concept is \$1.54 million.

**Recommended Project:** Alternative Concept C  
**Timeframe:** As Soon As Possible







Division of Planning



Source Citation  
Topographic data, including utilities and imagery and less historic, aquatic and terrestrial courtesy of the Kentucky Office of Geographic Information Systems (KYOGIS). Q4 makes no claim to the accuracy of that data shown on this map.

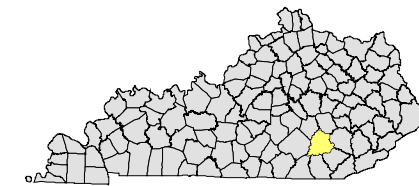
**Legend**

High Crash Section  
(Width based on Intensity)

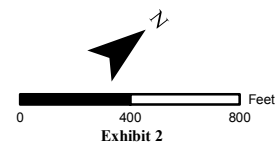
**Terminology Key**  
CRF: Crash Rate Factor  
ADT: Average Daily Traffic  
LOS: Level of Service

**LOS TIME: AM (PM)**

**2002 - 2006 Crash Data**  
0 Fatalities  
13 Injuries  
82 Property Damage Only  
95 Total Reported Crashes



VICINITY MAP



**Traffic Volumes, LOS  
and Crash Data**  
5th Street (KY 1006) Alternatives Study  
Laurel County, Kentucky  
KYTC Item No. 11-8304.00

JULY 2008






















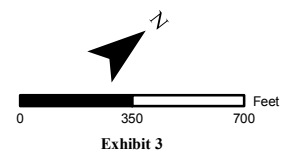
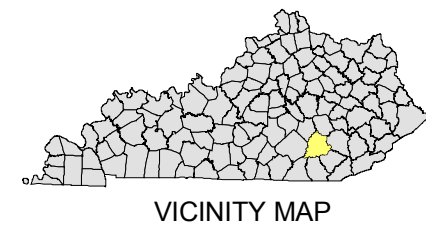
**Kentucky**  
UNBROKEN SPIRIT



Q4  
Architectural Engineering Construction

**Source Citation**  
Topographic data, including utilities and imagery and less historic, aquatic and terrestrial courtesy of the Kentucky Office of Geographic Information Systems (KYOGIS). Q4 makes no claim to the accuracy of that data shown on this map.

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|--|---|
|  Cemetery<br> Church<br> Hospital<br> School<br> HAZMAT<br> Water Tank<br> Waterline<br> Sanitary Sewer Line | <p><b>Legend</b></p>  Potential Historic Property<br> Potential Historic District<br> Wetlands<br> PROJECT STUDY AREA<br> State Road<br> Local Road<br> Stream |
|--|---|



**Environmental Footprint**  
 5th Street (KY 1006) Alternatives Study  
 Laurel County, Kentucky  
 KYTC Item No. 11-8304.00  
 JULY 2008