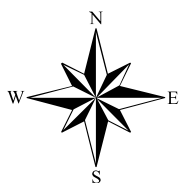
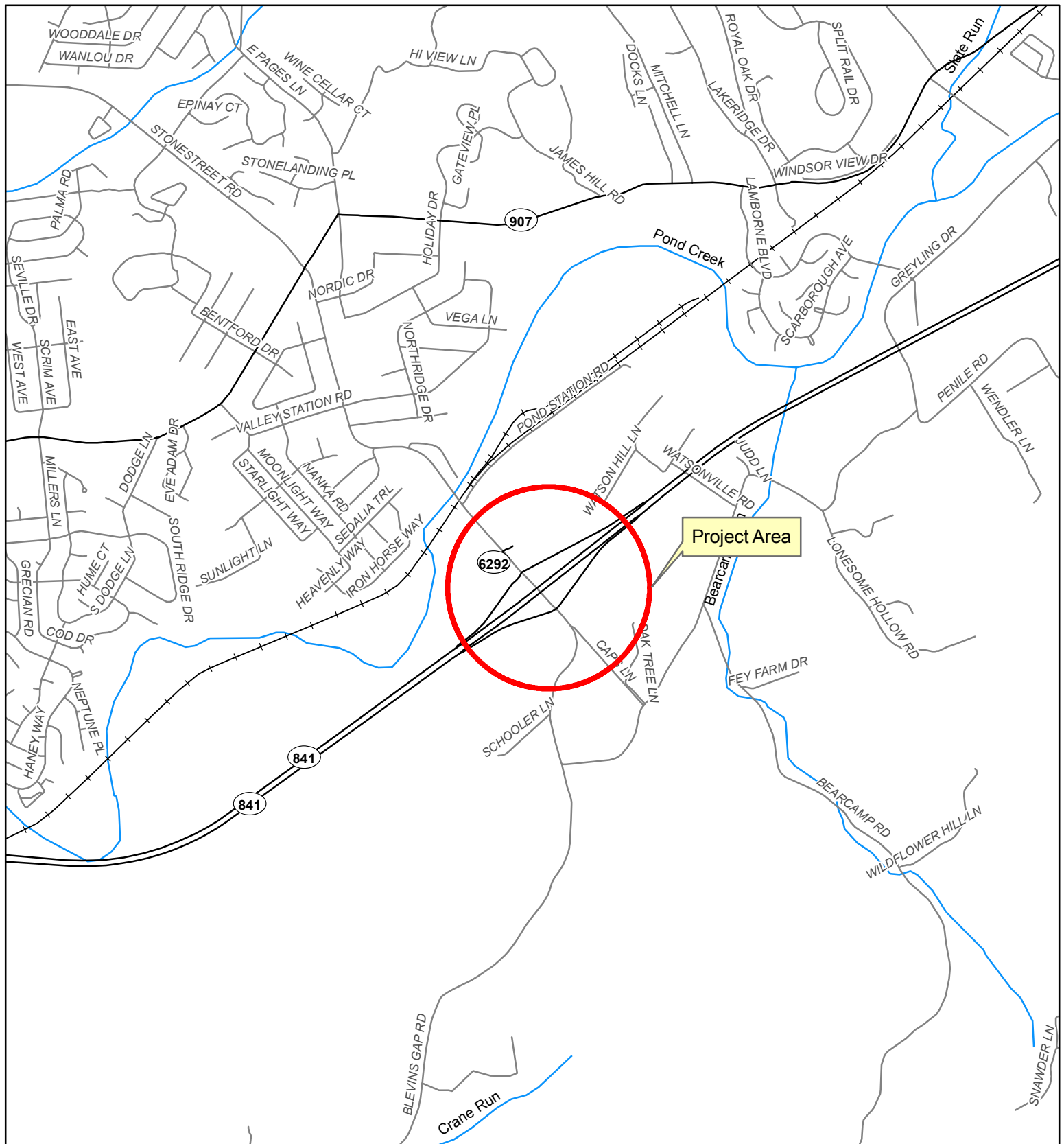


## Appendix A – Maps of the Project Area



## KY 841/Stonestreet Road Interchange

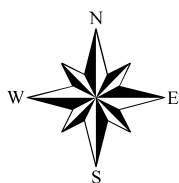
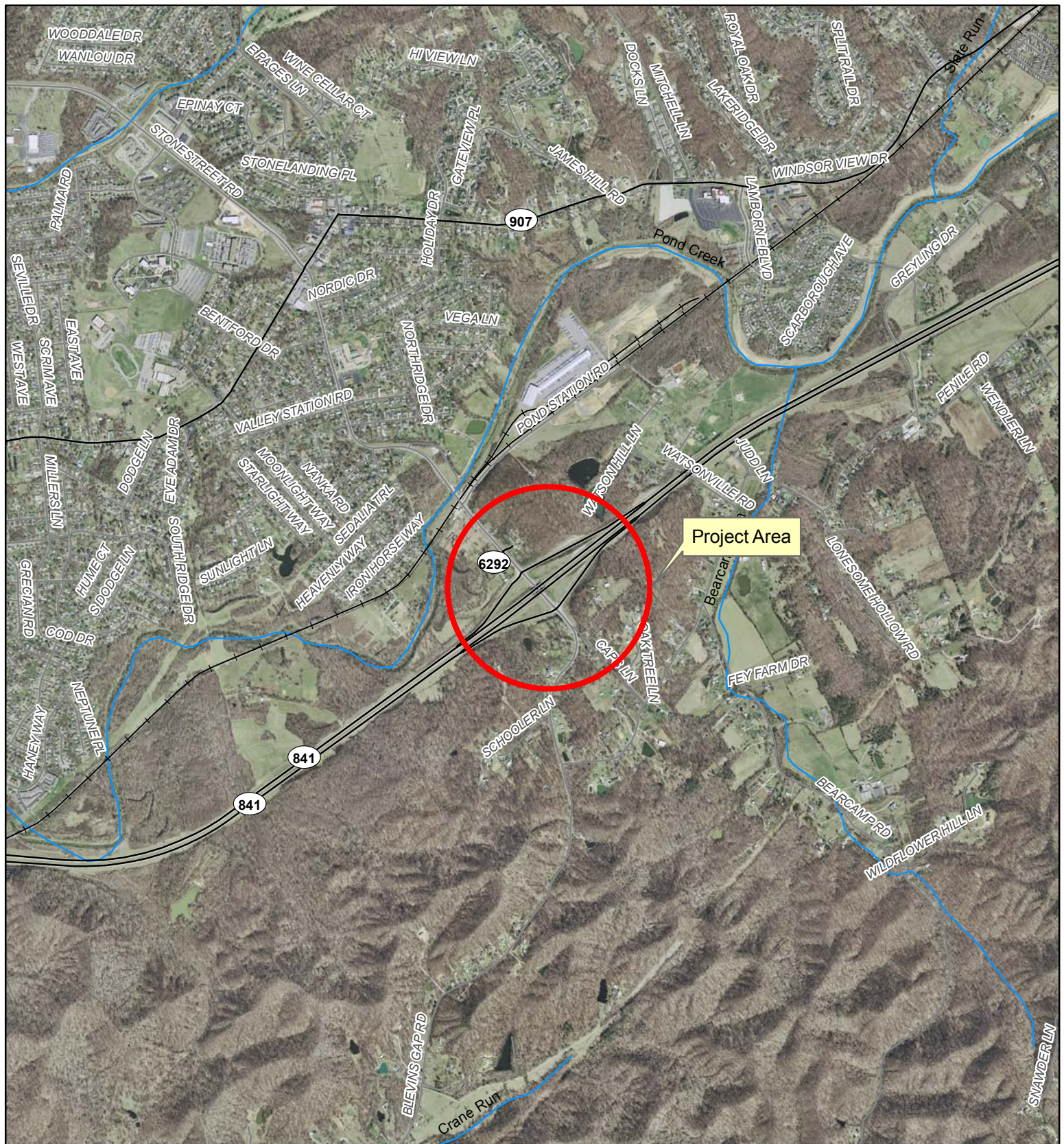
Project Location

Jefferson County



0 700 1,400 2,800 4,200 Feet

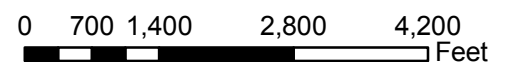




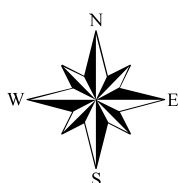
# KY 841/Stonestreet Road Interchange

Orthographic Map

Jefferson County





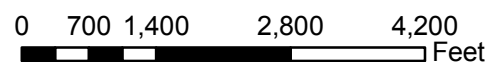


# KY 841/Stonestreet Road Interchange

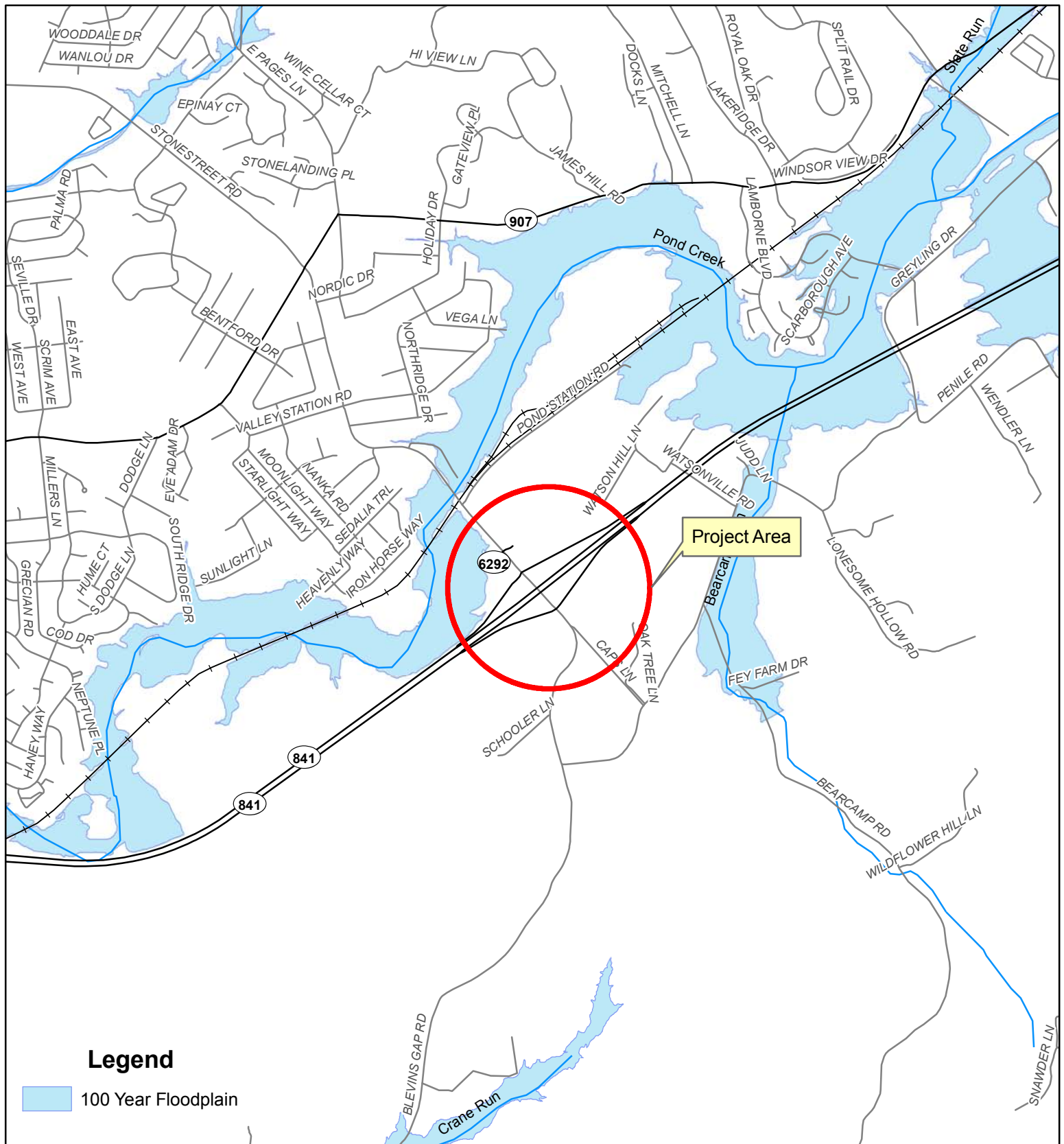
## Topographic Map



Jefferson County









## Appendix B – Six Year Highway Plan Listing



KENTUCKY TRANSPORTATION CABINET  
SIX YEAR HIGHWAY PLAN

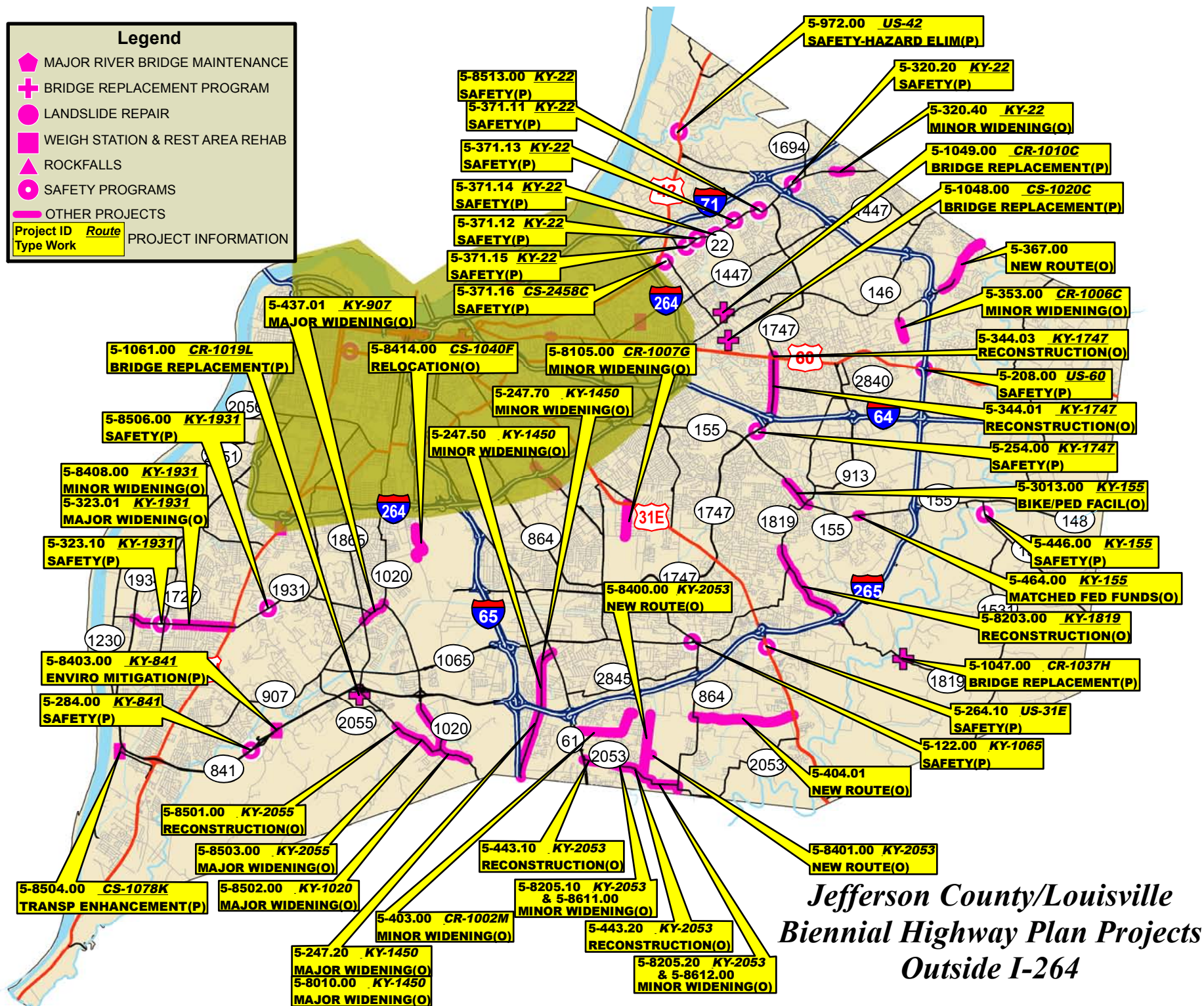
Page: 62

28 JAN 2010

FY - 2010 THRU FY - 2016

COUNTY	ITEM NO. & PARENT NO.			ROUTE	LENGTH	DESCRIPTION	FUND-SCHEDULING INFORMATION			
JEFFERSON	2006	05	- 254.00	KY=1747	.100	EXTEND DUAL LEFT TURN LANES ON KY-1747 (HURSTBOURNE LN) AT BUNSEN PKWY. Milepoints: From:11.409 To: 11.509 Purpose and Need: SAFETY / SAFETY(P)	FUNDING	PHASE	YEAR	AMOUNT
	2006	05	- 254.00				SP	C	2010	\$210,000
							Total			\$210,000
JEFFERSON	2006	05	- 263.00	I-265	.700	IMPROVE I-265/KY-61 (PRESTON HWY) INTERCHANGE AS RECOMMENDED BY KIPDA'S INTERCHANGE STUDY. Milepoints: From:11.3 To: 12 Purpose and Need: SAFETY / SAFETY(P)	FUNDING	PHASE	YEAR	AMOUNT
	2006	05	- 263.00				IM	C	2010	\$2,640,000
							Total			\$2,640,000
JEFFERSON	2006	05	- 264.00	I-265	.800	IMPROVE I-265/US-31E (BARDSTOWN RD) INTERCHANGE AS RECOMMENDED BY KIPDA'S INTERCHANGE STUDY. Milepoints: From:16.9 To: 17.7 Purpose and Need: SAFETY / SAFETY(P)	FUNDING	PHASE	YEAR	AMOUNT
	2006	05	- 264.00				IM	C	2010	\$1,560,000
							Total			\$1,560,000
JEFFERSON	2010	05	- 264.10	US-31E		IMPROVE US 31-E SOUTH OF I-265 (BARDSTOWN ROAD)INTERCHANGE TO PROVIDE TURN LANES AND NEW ACCESS. Milepoints: From:4.5 To: 4.926 Purpose and Need: SAFETY / SAFETY(P)	FUNDING	PHASE	YEAR	AMOUNT
	2010	05	- 264.10				NH	R	2011	\$25,000
							NH	U	2011	\$100,000
							NH	C	2012	\$2,400,000
							Total			\$2,525,000
JEFFERSON	2006	05	- 271.00	I-265	.500	IMPROVE I-265/KY-146 (LAGRANGE RD) INTERCHANGE AS RECOMMENDED BY KIPDA'S INTERCHANGE STUDY. Milepoints: From:30 To: 30.5 Purpose and Need: SAFETY / SAFETY(P)	FUNDING	PHASE	YEAR	AMOUNT
	2006	05	- 271.00				IM	C	2010	\$1,500,000
							Total			\$1,500,000
JEFFERSON	2006	05	- 284.00	KY=841	.800	IMPROVE KY-841/STONESTREET ROAD INTERCHANGE AS RECOMMENDED BY KIPDA'S INTERCHANGE STUDY. Milepoints: From:2.7 To: 3.5 Purpose and Need: SAFETY / SAFETY(P)	FUNDING	PHASE	YEAR	AMOUNT
	2006	05	- 284.00				STP	C	2010	\$360,000
							Total			\$360,000
JEFFERSON	2006	05	- 286.00	I-64	.700	IMPROVE I-64/KY-913 (BLANKENBAKER RD) INTERCHANGE AS RECOMMENDED BY KIPDA'S INTERCHANGE STUDY. Milepoints: From:16.8 To: 17.55 Purpose and Need: SAFETY / SAFETY(P)	FUNDING	PHASE	YEAR	AMOUNT
	2006	05	- 286.00				IM	C	2010	\$1,920,000
							Total			\$1,920,000
JEFFERSON	2002	05	- 320.20	KY-22	.520	IMPLEMENT TRAFFIC FLOW IMPROVEMENT FROM CHAMBERLAIN LANE TO KY-1694. (LOCAL PARTICIPATION)(2002BOPC)(TO BE LET WITH 5-320.30 AND 5-320.40)(TO BE LET BY KYTC). Milepoints: From:4.03 To: 4.42 Purpose and Need: SAFETY / SAFETY(P)	FUNDING	PHASE	YEAR	AMOUNT
	2000	05	- 320.00				SP	C	2010	\$6,500,000
							Total			\$6,500,000
JEFFERSON	2004	05	- 320.40	KY-22	.200	RECONSTRUCT KY-22 FROM HITT ROAD TO MURPHY LANE. (DESIGN AND ROW BY AGREEMENT WITH METRO LOUISVILLE; UTILITIES AND CONSTRUCTION BY KYTC) (TO BE LET WITH 5-320.20 AND 5-320.30)(06CCN) (2004BOPC)(08CCR) Milepoints: From:5.185 To: 5.639 Purpose and Need: RELIABILITY / MINOR WIDENING(O)	FUNDING	PHASE	YEAR	AMOUNT
	2000	05	- 320.00				SPB	C	2010	\$1,460,000
							Total			\$1,460,000





## Appendix C – Transportation Improvement Program (TIP) Listing



## Kentucky Comprehensive TIP List

Project Name	2nd Name	Description	State ID	KIPDA ID	County	Contact	Year	Phase	Federal	Other	Total	Funding
KY 393		Relocate and widen KY 393 from 2 to 3 lanes (3rd lane will be a center turn lane) from I-71 to north of KY 146 (LaGrange Road). KY 393 reconstruct from northern ramp of I-71 to north of KY 146 (stations 10+100 to 12+100). Project length is 0.9 miles.	00234.00	147	Oldham	KYTC						
							2005	ROW	\$4,500,000	\$0	\$4,500,000	STP-ST
							2006	U	\$0	\$2,100,000	\$2,100,000	State
							2011	C	\$0	\$9,310,000	\$9,310,000	State
							<b>Total</b>		\$4,500,000	\$11,410,000	\$15,910,000	
KY 480		Widen KY 480 from 3 to 5 lanes (3rd lane is presently a center turn lane—project adds a travel lane in each direction) from I-65 to the Industrial Park (Omega Parkway in Cedar Grove Business Center), from 3 to 4 lanes from the Industrial Park (Omega Parkway in Cedar Grove Business Center) to Cedar Grove Elementary School, and from 2 to 3 lanes (3rd lane will be a center turn lane) from Cedar Grove Elementary School to Valley View Drive.	00391.00	1490	Bullitt	KYTC						
							2007	D	\$0	\$400,000	\$400,000	State
							2007	C	\$0	\$4,400,000	\$4,400,000	State
							<b>Total</b>		\$0	\$4,800,000	\$4,800,000	
KY 480		Widen KY 480 (Cedar Grove Road) from the northbound I-65 ramps to Cedar Grove Elementary School.		1627	Bullitt	KYTC						
							2009	C	\$4,720,000	\$0	\$4,720,000	State
							<b>Total</b>		\$4,720,000	\$0	\$4,720,000	
KY 480		Widen from 2 to 3 lanes (3rd lane is center turn lane) from Cedar Grove Elementary to Valley View Drive. Project length is 0.6 mi.	00391.20	1816	Bullitt	KYTC						
							2010	C	\$0	\$2,500,000	\$2,500,000	State
							<b>Total</b>		\$0	\$2,500,000	\$2,500,000	
KY 524		Landslide repair on KY 524 (Westport Road) from Junction US 42 northwest, 1.0 mile.	05013.00	1726	Oldham	KYTC						
							2009	ROW	\$0	\$110,000	\$110,000	State
							2010	U	\$0	\$80,000	\$80,000	State
							2011	C	\$0	\$1,000,000	\$1,000,000	State
							<b>Total</b>		\$0	\$1,190,000	\$1,190,000	
KY 841		Improve KY 841/Stonestreet Road interchange as recommended by KIPDA's interchange study.	00284.00	1467	Jefferson	KYTC						
							2010	C	\$360,000	\$0	\$360,000	STP-ST
							<b>Total</b>		\$360,000	\$0	\$360,000	

## Appendix D – Project Identification Form



**KYTC Project Identification Form**

Cycle Year: \_\_\_\_\_  
 Priority: L : \_\_\_\_\_ R: \_\_\_\_\_ D: \_\_\_\_\_  
 Tier: \_\_\_\_\_  
 Tier Rank: \_\_\_\_\_ R: \_\_\_\_\_ D: \_\_\_\_\_  
 Overall Top Ten: \_\_\_\_\_ R: \_\_\_\_\_ D: \_\_\_\_\_

**Section I – General Information**

<b>Requested by:</b> Title/Organization: <b>KYTC D-5</b> Date:
<b>Form Completed by:</b> <b>Stacey Burton</b> Title/Organization: <b>KIPDA</b> Date: <b>09/19/2008</b>
<b>Revision 1 by:</b> Title/Organization: Date:
<b>Revision 2 by:</b> Title/Organization: Date:

<b>UPL Control #:</b> <b>05 056 D0841 1.00</b> Co. #: <b>056</b>	
Parent Control #: <b>05 056 D0841 1.00</b>	
RSE Unique Number: <b>056 KY-841</b>	
District: <b>5</b>	County: <b>Jefferson</b>
ADD: <b>KIPDA</b>	MPO: <b>KIPDA-MPO</b>
Mode: <b>Highway</b>	State System: <b>State Primary</b>
Type: <b>Spot Imprvmt</b>	Func't'l Class:
<b>Urb Other Frwv/Expwv</b>	
<b>Project Length: 0.800</b>	<b>Total Cost Estimate: \$ _____</b>
(P: _____)	(D: _____ R: _____ U: _____ C: _____)
Possible Funding Sources (Check all that apply):	
<input checked="" type="checkbox"/> IM <input checked="" type="checkbox"/> NH <input checked="" type="checkbox"/> HES <input type="checkbox"/> BR <input checked="" type="checkbox"/> STP <input checked="" type="checkbox"/> SP <input type="checkbox"/> TE <input type="checkbox"/> CMAQ <input type="checkbox"/> PLH <input type="checkbox"/> Other: _____	
Highway Networks (Check all that apply):	
<input checked="" type="checkbox"/> NN <input type="checkbox"/> Scenic Byway <input type="checkbox"/> Coal Haul <input type="checkbox"/> Bike <input checked="" type="checkbox"/> NHS <input type="checkbox"/> Defense <input type="checkbox"/> Strahnet <input type="checkbox"/> Ext. Wt. <input type="checkbox"/> ADHS ( ) <input type="checkbox"/> Forest	

**Section II – Problem Statement**

Route Number: <b>KY 841</b>	(Use Report Year)	Original	Rev. 1	Rev. 2
Beginning MP: <b>2.700</b>	Adequacy Rating:	<b>76.00: (07)</b>	: ( )	: ( )
Ending MP: <b>3.500</b>	• CRF: (Year)	<b>0.09: (07)</b>	: ( )	: ( )
Total Length: <b>0.800</b>	• IRI: (Year)	<b>151: (07)</b>	: ( )	: ( )
	• V/SF: (Year)	<b>0.69: (07)</b>	: ( )	: ( )
Primary Purpose: <b>Improve Existing System(Minor)</b>	Current ADT: (Year):	<b>33300: (07)</b>	: ( )	: ( )
	Percent Trucks: (Year):	: ( )	: ( )	: ( )
	Projected ADT (HDO): Year:	%Growth:	ADT:	

Please provide a clear problem statement for this project:

**KY 841 from MP 2.700 to MP 3.500 is located in southwestern Jefferson County. This segment has a composite adequacy rating of 76.00; a CRF of 0.09; and IRI of 151; and, a V/SF of 0.69. A study was commissioned of select interchanges and was administered by the Kentucky Transportation Cabinet in 2005. In the study, it was noted that the ramps at this interchange have a LOS F at peak hour, and in the evening peak hour, congestion can back up onto KY 841 from the ramp.**

**Section III – Project Description**

Project Description Narrative:
<b>Improve KY 841/Stonestreet Road interchange as recommended by KIPDA's interchange study.</b>

Regional Goals/Objectives Addressed: **1. Improve traffic flow on roadways during peak travel hours. 2. Improve air quality. 3. Improve mobility within designated freight corridors. 4. Improve safety on roadways.**

**Section IV – Project Area Information:**

<b>1. Miscellaneous Roadway Conditions</b>	Access Control:	Existing: <u>Full</u> Proposed: <u>Full</u>	Median Type:	Existing: <u>Depressed</u> Proposed: <u>Depressed</u>	Width: <u>46</u> Width: <u>46</u>
	Lane No./Width:	Existing: <u>4/12</u> Proposed: <u>4/12</u>	Shoulders:	Existing: <u>Concrete</u> Proposed: <u>Concrete</u>	Width: <u>10</u> Width: <u>10</u>
	No. of Bridges:	Existing: _____ Proposed: _____	Other Improvement Projects in Area:	<input type="checkbox"/> None <input type="checkbox"/> SYP <input type="checkbox"/> Resurface <input checked="" type="checkbox"/> Other <b>KIPDA ID# 1467</b>	
	Comments: <b>Project has been identified in the current long-range transportation plan: ID# 1467</b>				
<b>2. Right of Way</b>	Avg. Width:	Existing: _____	Source: <input type="checkbox"/> HIS <input type="checkbox"/> Plans <input type="checkbox"/> Microfilm <input type="checkbox"/> Other _____		
	Current Primary Use: <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Farmland <input type="checkbox"/> Other: _____				
	<input type="checkbox"/> No <input type="checkbox"/> Yes Project may require additional R/W.		Possible Relocations : Homes: _____ Businesses: _____		
	Comments:				
<b>3. Utilities</b>	Existing Utilities:	<input type="checkbox"/> Power <input type="checkbox"/> Gas <input type="checkbox"/> Telephone <input type="checkbox"/> Cable <input type="checkbox"/> Sewer <input type="checkbox"/> Water <input type="checkbox"/> ITS <input type="checkbox"/> None <input type="checkbox"/> Other: _____			
	<input type="checkbox"/> No <input type="checkbox"/> Yes Project may require Utility Relocations.		Comments:		
<b>4. Environmental Impacts</b>	(Check all that apply):				
	<input type="checkbox"/> Blueline Streams <input type="checkbox"/> Wetlands <input type="checkbox"/> Floodplain <input type="checkbox"/> Wildlife Managed Areas <input type="checkbox"/> Historic Properties <input type="checkbox"/> Cemeteries <input type="checkbox"/> Schools <input type="checkbox"/> Churches <input type="checkbox"/> Endangered Species <input type="checkbox"/> Public Land/Park <input type="checkbox"/> Noise Impact <input type="checkbox"/> Arch. Sites <input type="checkbox"/> NR Properties <input type="checkbox"/> Potential NR Properties <input type="checkbox"/> Other:				
	<input type="checkbox"/> Potential Contaminated sites: <input type="checkbox"/> Gas Stations <input type="checkbox"/> Landfills <input type="checkbox"/> Auto Repair <input type="checkbox"/> Junkyards <input type="checkbox"/> Other				
Comments:					
<b>5. Air Quality</b>	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Project is located in a Maintenance or Nonattainment Area <input checked="" type="checkbox"/> Ozone <input checked="" type="checkbox"/> PM 2.5				
	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Project adds through lane capacity				
	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Project results from a Congestion Management Plan				
	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Project is included in TIP/STIP <span style="float: right;">TIP Page #      STIP Page #</span>				
	Comments:				
<b>6. Economic Impacts</b>	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Planning/Zoning Regulations exist in Community		<input type="checkbox"/> No <input type="checkbox"/> Yes Project may affect established Business, Commercial or Industrial Districts.		
	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes This project has economic impacts on regional/local economy: <input type="checkbox"/> Development <input type="checkbox"/> Tax Revenues <input type="checkbox"/> Employment Opportunity <input type="checkbox"/> Retail Sales <input type="checkbox"/> Other		Please Describe:		
	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes This project provides direct access to major points of interest: <input type="checkbox"/> Nat'l/State Parks <input type="checkbox"/> Monuments <input type="checkbox"/> Historic Sites <input type="checkbox"/> Amusement Parks <input type="checkbox"/> US Public Land <input type="checkbox"/> Other		Please Describe:		
	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes This project provides direct access to major traffic generators: <input type="checkbox"/> Shopping Centers <input type="checkbox"/> Schools <input type="checkbox"/> Industries <input type="checkbox"/> Military Installations <input type="checkbox"/> Other		Please Describe:		



<b>7. Multimodal Opportunities</b>	This project is a candidate for: (check all that apply)			<input type="checkbox"/> Bicycle Paths	<input type="checkbox"/> Sidewalks	<input type="checkbox"/> Shared-Use Paths
				<input type="checkbox"/> Park/Ride Lots	<input checked="" type="checkbox"/> N/A	
	This project improves direct access to: (check all that apply)			<input type="checkbox"/> Airports	<input type="checkbox"/> Railways	<input type="checkbox"/> Riverports
				<input checked="" type="checkbox"/> Trucking Routes	<input type="checkbox"/> N/A	
Type of Public Transportation available:			<input type="checkbox"/> Fixed Route	<input type="checkbox"/> Demand Response		
Comments:						

<b>8. Social Impacts</b>	This project may affect: (Check all that apply)		<input type="checkbox"/> Neighborhood or Community Cohesion <input type="checkbox"/> Travel Patterns (Vehicular, commuter, bicycle, pedestrian) <input type="checkbox"/> Household Relocations <input type="checkbox"/> Elderly, disabled, nondrivers, minorities, low-income persons <input checked="" type="checkbox"/> No adverse effects to neighborhoods apparent.
	Comments/Impact Descriptions:		

**Section V – Cost Estimate Information** (to be completed by Hwy District Office):**Cost Estimate by Phase:**

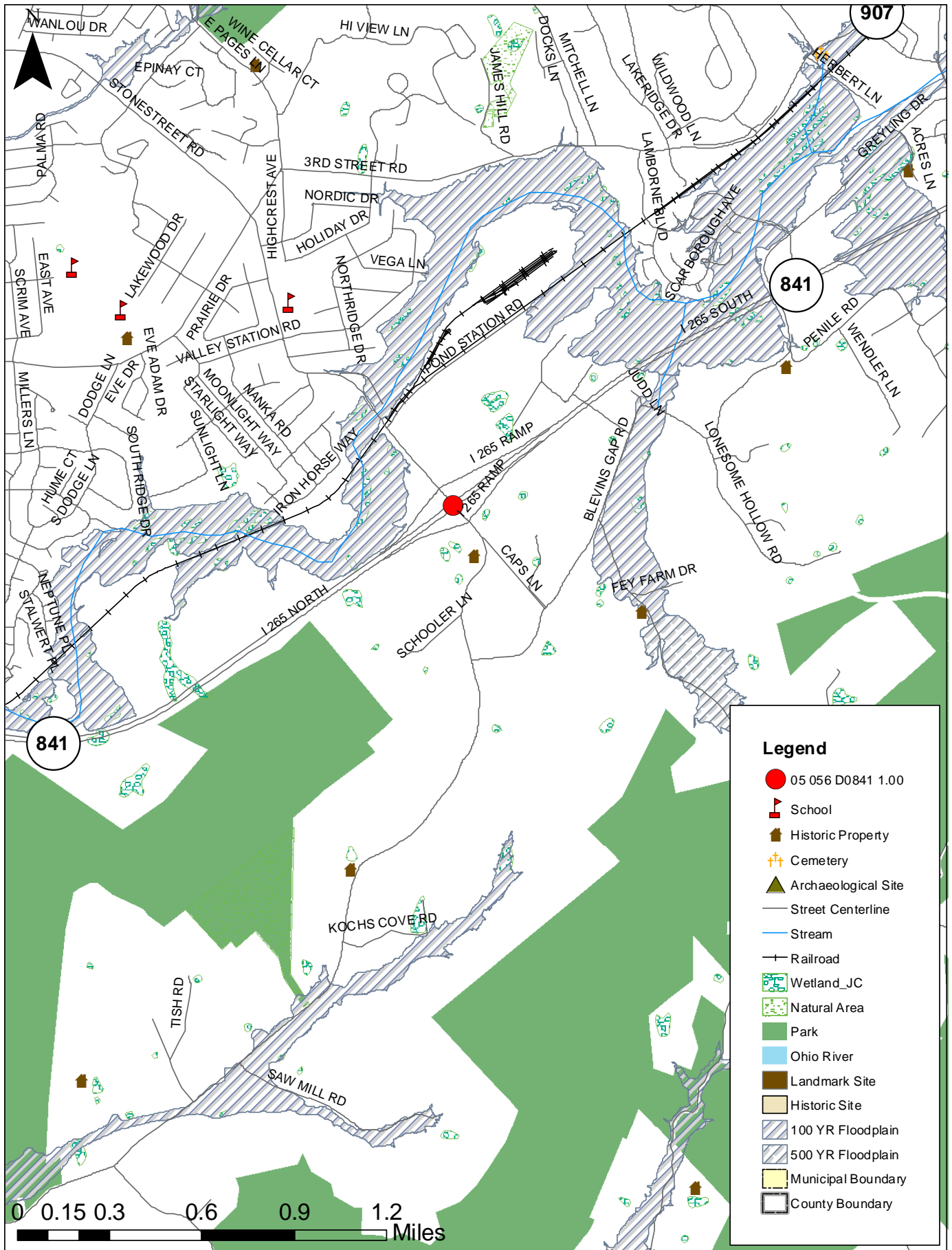
Phase	Original Estimate	By:	Revision 1	Date	By:	Revision 2	Date	By:
Planning								
Design								
ROW								
Utilities								
Construction								
<b>Total Cost</b>								

**Estimate Procedure Used:**

Original Estimate:	Revision 1:	Revision 2:
<input type="checkbox"/> Per Mile@ \$ _____ Terrain: _____	<input type="checkbox"/> Per Mile@ \$ _____ Terrain: _____	<input type="checkbox"/> Per Mile@ \$ _____ Terrain: _____
<input type="checkbox"/> Detailed Estimate with Calculations Attached	<input type="checkbox"/> Detailed Estimate with Calculations Attached	<input type="checkbox"/> Detailed Estimate with Calculations Attached
<u>Estimate Assumptions:</u>           	<u>Estimate Assumptions:</u>           	<u>Estimate Assumptions:</u>           
Estimate Class: _____	Estimate Class: _____	Estimate Class: _____

**Section VI – Attachments:**
 The following items are attached to this document: ☒ Location Map ☒ Photograph(s) ☐ Other:

Comments:





**Figure 1: From Stonestreet Road to KY 841**





**Figure 2: From KY 841 to Stonestreet Road**



**Figure 3: Looking north at the KY 841/Stonestreet Road interchange**





**Figure 4: Looking north at Stonestreet Road with the KY 841 overpass**



**Figure 5: Vehicles accessing KY 841 from Stonestreet Road**





**Figure 6: Vehicles accessing Stonestreet Road from KY 841**



**Figure 7: Ramp from Stonestreet Road to KY 841**





**Figure 8: Pavement condition on Stonestreet Road**



**Figure 9: Looking south at Stonestreet Road and the KY 841 overpass**





**Figure 10: Looking south at Stonestreet Road and the KY 841 overpass**

## Appendix E – Traffic Count Data



# Kentucky Traffic Counts

Route: KY 841 Street: GENE SNYDER FREEWAY  
 From MP: 0.000 At: US 31W (DIXIE HIGHWAY)  
 To MP: 3.067 At: STONE STREET ROAD OVERPASS

District: 5  
 County: JEFFERSON  
 City: LOUISVILLE

**Last Actual Count:**  
 31,964 in 2007

Station ID: G80 Station Cnty: JEFFERSON  
 Station Type: Rest Areas(RtSuffix=RA) & Ramps(RtSuffix=RP)  
 Functional Class: URBAN - Other Freeways & Expressways

**New Road Year:**  
**Impact Year:**

<u>Year</u>	<u>Count</u>	<u>Type</u>
2011	36,500	Computer Estimate
2010	35,500	Computer Estimate
2009		
2008		
2007	32,000	Actual Count
2006	30,400	Actual Count
2005	30,700	Actual Count
2004	33,000	Actual Count
2003	29,900	Actual Count
2002		
2001		
2000	26,700	Actual Count
1999		
1998		
1997		
1996		
1995		
1994		
1993		
1992		
1991	18,400	Actual Count
1990	17,600	Actual Count
1989	18,900	Actual Count
1988		
1987		
1986	12,500	Actual Count
1985	9,240	Actual Count
1984	9,240	Actual Count
1983		
1982		
1981		
1980		
1979		
1978		
1977		
1976		
1975		
1974		
1973		
1972		
1971		
1970		

## **Kentucky Traffic Counts**

1969  
1968  
1967  
1966  
1965

## Kentucky Traffic Counts

Route: KY 841 Street: GENE SNYDER FREEWAY  
From MP: 3.067 At: STONE STREET ROAD OVERPASS  
To MP: 6.034 At: KY 1865 (NEW CUT RD) OVERPASS

District: 5  
County: JEFFERSON  
City: LOUISVILLE

<b>Last Actual Count:</b> 47,058 in 2007
---

Station ID: G79 Station Cnty: JEFFERSON

Station Type: Rest Areas(RtSuffix=RA) & Ramps(RtSuffix=RP)

Functional Class: URBAN - Other Freeways & Expressways

New Road Year:

Impact Year:

<u>Year</u>	<u>Count</u>	<u>Type</u>
2011	54,100	Computer Estimate
2010	52,600	Computer Estimate
2009		
2008		
2007	47,100	Actual Count
2006	44,400	Actual Count
2005	45,800	Actual Count
2004	49,200	Actual Count
2003	45,400	Actual Count
2002		
2001		
2000	32,400	Actual Count
1999		
1998		
1997		
1996		
1995		
1994		
1993		
1992		
1991		
1990	23,600	Actual Count
1989	31,000	Actual Count
1988		
1987	22,000	Actual Count
1986	13,600	Actual Count
1985	11,500	Actual Count
1984	11,500	Actual Count
1983		
1982		
1981		
1980		
1979		
1978		
1977		
1976		
1975		
1974		
1973		
1972		
1971		
1970		



## **Kentucky Traffic Counts**

1969  
1968  
1967  
1966  
1965

## Kentucky Traffic Counts

**Route:** CR 1003 L **Street:** STONESTREET ROAD  
**From MP:** 1.210 **At:** KY 907 (THIRD STREET ROAD)  
**To MP:** 2.517 **At:** KY 841 SOUTH RAMP

**District:** 5  
**County:** JEFFERSON  
**City:** LOUISVILLE

<b>Last Actual Count:</b> 17,766 in 2009
---

**Station ID:** 701 **Station Cnty:** JEFFERSON  
**Station Type:** Full Coverage  
**Functional Class:** URBAN - Minor Arterial

**New Road Year:**  
**Impact Year:**

<u>Year</u>	<u>Count</u>	<u>Type</u>
2011	18,800	Computer Estimate
2010	18,300	Computer Estimate
2009	17,800	Actual Count
2008		
2007		
2006	15,200	Actual Count
2005		
2004		
2003		
2002		
2001	15,000	Actual Count
2000		
1999		
1998		
1997		
1996		
1995		
1994		
1993		
1992		
1991		
1990		
1989		
1988		
1987		
1986	4,570	Actual Count
1985		
1984		
1983		
1982		
1981		
1980		
1979		
1978		
1977		
1976		
1975		
1974		
1973		
1972		
1971		
1970		

## **Kentucky Traffic Counts**

1969  
1968  
1967  
1966  
1965



## Kentucky Traffic Counts

Route: CR 1003 L Street: STONESTREET ROAD

District: 5

From MP: 2.517 At: KY 841 SOUTH RAMP

County: JEFFERSON

To MP: 3.008 At: BLEVINS GAP ROAD

City: LOUISVILLE

Station ID: 538 Station Cnty: JEFFERSON

Station Type: Full Coverage

Functional Class: URBAN - Collector

Last Actual Count:

2,096 in 2008

New Road Year:

Impact Year:

<u>Year</u>	<u>Count</u>	<u>Type</u>
2011	2,300	Computer Estimate
2010	2,240	Computer Estimate
2009		
2008	2,100	Actual Count
2007		
2006		
2005	2,170	Actual Count
2004		
2003		
2002		
2001	2,280	Actual Count
2000		
1999		
1998		
1997		
1996		
1995		
1994		
1993		
1992		
1991		
1990		
1989		
1988		
1987		
1986	1,530	Actual Count
1985		
1984		
1983		
1982	1,010	Actual Count
1981		
1980		
1979		
1978		
1977		
1976		
1975		
1974		
1973		
1972		
1971		
1970		

## **Kentucky Traffic Counts**

1969  
1968  
1967  
1966  
1965

## Appendix F – Collision Data



KY 841 COLLISION DATA (BMP 2.0 to EMP 4.5)

MILEPOINT DERIVED	COLLISION DATE	COLLISION TIME	MOTOR VEHICLES INVOLVED	UNITS INVOLVED	KILLED	INJURED	WEATHER	ROADWAY CONDITION	MANNER OF COLLISION	ROADWAY CHARACTER	LIGHT CONDITION
2.255	10/23/2010	1609	2	2	1	0	CLEAR	DRY	SIDESWIPE-SAME DIRECTION	STRAIGHT & HILLCREST	DAYLIGHT
2.321	3/22/2011	638	1	1	0	0	CLOUDY	DRY	SINGLE VEHICLE	STRAIGHT & LEVEL	DARK-HWY LIGHTED/ON
2.409	3/10/2011	1100	2	2	0	1	RAINING	WET	ANGLE	STRAIGHT & LEVEL	DAYLIGHT
2.487	12/4/2010	845	1	1	0	0	SNOWING	SNOW/SLUSH	SINGLE VEHICLE	STRAIGHT & LEVEL	DAYLIGHT
2.964	4/30/2011	930	1	1	0	0	CLEAR	DRY	SINGLE VEHICLE	STRAIGHT & GRADE	DAYLIGHT
2.977	8/10/2010	1018	1	1	0	0	CLEAR	DRY	SINGLE VEHICLE	STRAIGHT & LEVEL	DAYLIGHT
3.052	1/20/2011	1720	1	1	0	0	SNOWING	SNOW/SLUSH	SINGLE VEHICLE	STRAIGHT & GRADE	DAYLIGHT
3.098	8/19/2010	1713	2	2	0	2	CLEAR	DRY	REAR END	STRAIGHT & LEVEL	DAYLIGHT
3.167	10/22/2010	331	1	1	0	0	CLEAR	DRY	SINGLE VEHICLE	STRAIGHT & LEVEL	DARK-HWY LIGHTED/ON
3.401	3/29/2011	1716	2	2	0	0	CLEAR	DRY	REAR END	STRAIGHT & LEVEL	DAYLIGHT
3.438	9/14/2010	940	1	1	0	0	CLEAR	DRY	SINGLE VEHICLE	STRAIGHT & HILLCREST	DAYLIGHT
3.478	1/20/2011	1715	2	2	0	0	SNOWING	SNOW/SLUSH	ANGLE	STRAIGHT & LEVEL	DARK-HWY NOT LIGHTED
3.544	11/13/2010	429	1	1	0	0	CLEAR	DRY	SINGLE VEHICLE	CURVE & HILLCREST	DARK-HWY LIGHTED/ON
3.573	1/21/2011	1531	1	1	0	0	CLEAR	DRY	SINGLE VEHICLE	STRAIGHT & GRADE	DAYLIGHT
3.598	3/22/2011	1051	2	2	0	0	CLOUDY	DRY	ANGLE	STRAIGHT & HILLCREST	DAYLIGHT
3.681	1/20/2011	1745	1	1	0	0	SNOWING	SNOW/SLUSH	SINGLE VEHICLE	STRAIGHT & GRADE	DARK-HWY NOT LIGHTED
3.692	1/20/2011	1730	1	1	0	0	SNOWING	SNOW/SLUSH	SINGLE VEHICLE	STRAIGHT & GRADE	DARK-HWY NOT LIGHTED
3.712	2/13/2011	405	2	2	0	0	CLEAR	DRY	SIDESWIPE-OPPOSITE DIRECTION	STRAIGHT & HILLCREST	DARK-HWY LIGHTED/OFF
3.727	9/3/2010	1411	1	1	0	0	CLEAR	DRY	SINGLE VEHICLE	CURVE & GRADE	DAYLIGHT
4.016	6/20/2010	209	2	2	0	0	CLEAR	DRY	SIDESWIPE-SAME DIRECTION	STRAIGHT & LEVEL	DARK-HWY NOT LIGHTED
4.149	11/24/2010	1734	2	2	0	0	CLOUDY	WET	SIDESWIPE-SAME DIRECTION	STRAIGHT & LEVEL	DARK-HWY LIGHTED/OFF
4.178	5/20/2011	1520	1	1	0	0	CLEAR	DRY	SINGLE VEHICLE	STRAIGHT & LEVEL	DAYLIGHT
4.22	1/10/2011	1615	1	1	0	0	CLOUDY	DRY	SINGLE VEHICLE	STRAIGHT & LEVEL	DAYLIGHT
4.232	3/15/2011	754	1	1	0	0	RAINING	WET	SINGLE VEHICLE	STRAIGHT & LEVEL	DAWN
4.452	12/28/2010	1204	2	2	0	0	CLEAR	DRY	SIDESWIPE-SAME DIRECTION	STRAIGHT & LEVEL	DAYLIGHT

Stonestreet Road Collision Data (BMP 1.5 to EMP 3.0)

MILEPOINT DERIVED	COLLISION DATE	COLLISION TIME	MOTOR VEHICLES INVOLVED	UNITS INVOLVED	KILLED	INJURED	WEATHER	ROADWAY CONDITION	MANNER OF COLLISION	ROADWAY CHARACTER	LIGHT CONDITION
1.503	6/7/2008	1645	1	1	0	0	CLOUDY	DRY	SINGLE VEHICLE	STRAIGHT & LEVEL	DAYLIGHT
1.534	4/15/2010	1740	2	2	0	0	CLEAR	DRY	REAR END	STRAIGHT & LEVEL	DAYLIGHT
1.559	5/6/2010	1537	2	2	0	0	CLEAR	DRY	SIDESWIPE- OPPOSITE DIRECTION	STRAIGHT & LEVEL	DAYLIGHT
1.601	10/14/2009	2030	2	2	0	2	CLOUDY	DRY	ANGLE	STRAIGHT & LEVEL	DARK-HWY LIGHTED/OFF
1.622	6/1/2011	1300	2	2	0	1	CLEAR	DRY	REAR END	STRAIGHT & GRADE	DAYLIGHT
1.623	10/23/2008	2100	2	2	0	0	CLEAR	DRY	REAR END	STRAIGHT & LEVEL	DARK-HWY NOT LIGHTED
1.623	5/15/2010	1240	2	2	0	0	CLOUDY	DRY	ANGLE	STRAIGHT & GRADE	DAYLIGHT
1.625	8/27/2010	955	2	2	0	2	CLEAR	DRY	ANGLE	STRAIGHT & LEVEL	DAYLIGHT
1.627	3/30/2009	1139	2	2	0	0	CLEAR	DRY	ANGLE	STRAIGHT & LEVEL	DAYLIGHT
1.635	12/21/2010	2221	2	2	0	0	CLOUDY	WET	REAR END	STRAIGHT & LEVEL	DARK-HWY LIGHTED/ON
1.759	8/27/2009	548	2	2	0	1	CLEAR	DRY	ANGLE	CURVE & LEVEL	DARK-HWY NOT LIGHTED
1.768	1/8/2009	1025	2	2	0	1	CLEAR	DRY	ANGLE	CURVE & GRADE	DAYLIGHT
1.768	5/26/2009	1350	2	2	0	0	CLEAR	DRY	ANGLE	CURVE & GRADE	DAYLIGHT
1.793	4/5/2010	1925	2	2	0	2	CLEAR	DRY	HEAD ON	CURVE & GRADE	DAYLIGHT
1.795	4/14/2011	1047	2	2	0	0	CLEAR	DRY	REAR END	CURVE & LEVEL	DAYLIGHT
1.799	6/14/2010	1830	1	1	0	1	CLEAR	DRY	SINGLE VEHICLE	CURVE & GRADE	DAYLIGHT
1.825	6/7/2009	1630	1	1	0	1	CLEAR	DRY	SINGLE VEHICLE	CURVE & GRADE	DAYLIGHT
1.929	3/4/2010	750	2	2	0	2	CLEAR	DRY	HEAD ON	CURVE & LEVEL	DAYLIGHT
2.024	8/25/2009	1608	1	1	0	1	CLEAR	DRY	SINGLE VEHICLE	CURVE & LEVEL	DAYLIGHT
2.04	5/2/2011	1709	2	2	0	0	RAINING	WET	REAR END	STRAIGHT & LEVEL	DAYLIGHT
2.091	2/8/2010	905	2	2	0	0	CLOUDY	ICE	REAR END	STRAIGHT & LEVEL	DAYLIGHT
2.289	9/13/2010	1447	2	2	0	0	CLEAR	DRY	REAR END	STRAIGHT & LEVEL	DAYLIGHT
2.309	12/8/2009	840	2	2	0	0	CLOUDY	DRY	REAR END	STRAIGHT & LEVEL	DAYLIGHT
2.328	5/19/2010	745	2	2	0	0	CLEAR	DRY	REAR END	STRAIGHT & LEVEL	DAYLIGHT
2.341	6/19/2010	1315	2	2	0	0	CLEAR	DRY	REAR END	STRAIGHT & LEVEL	DAYLIGHT

2.366	5/12/2009	1730	2	2	0	0	CLEAR	DRY	REAR END	STRAIGHT & GRADE	DAYLIGHT
2.372	1/21/2009	1538	2	2	0	0	CLEAR	DRY	REAR END	STRAIGHT & LEVEL	DAYLIGHT
2.372	11/16/2009	927	2	2	0	0	CLEAR	DRY	REAR END	STRAIGHT & LEVEL	DAYLIGHT
2.377	9/25/2009	1003	2	2	0	0	RAINING	WET	REAR END	STRAIGHT & GRADE	DAYLIGHT
2.398	7/24/2009	1507	2	2	0	0	CLEAR	DRY	REAR END	STRAIGHT & LEVEL	DAYLIGHT
2.436	12/19/2009	1049	2	2	0	0	CLOUDY	WET	OPPOSING LEFT TURN	STRAIGHT & LEVEL	DAYLIGHT
2.517	8/26/2008	1001	2	2	0	3	CLEAR	DRY	ANGLE	STRAIGHT & GRADE	DAYLIGHT
2.521	11/10/2008	1627	2	2	0	2	CLOUDY	DRY	ANGLE	STRAIGHT & LEVEL	DAYLIGHT
2.548	9/13/2010	1740	1	1	0	0	CLEAR	DRY	SINGLE VEHICLE	STRAIGHT & LEVEL	DAYLIGHT
2.652	1/19/2009	230	1	1	0	1	CLEAR	ICE	SINGLE VEHICLE	CURVE & HILLCREST	DARK-HWY LIGHTED/OFF

## Appendix G – 2005 KIPDA Interchanges Study



## 9.0 KY 841 / STONE STREET ROAD INTERCHANGE

### 9.1 INTRODUCTION AND STUDY AREA

The study area for the KY 841 / Stone Street Road interchange consists of the intersections listed below. Refer to Figure 9-1 for the limits of the study area.

1. Stone Street Road / KY 841 Eastbound Ramps
2. Stone Street Road / KY 841 Westbound Ramps

### 9.2 EXISTING CONDITIONS

#### Current Traffic Volumes and Traffic Patterns

The majority of traffic flow for this interchange is between the north and east directions. Traffic volumes are relatively low throughout the interchange, particularly the Stone Street Road / KY 841 Eastbound Ramps intersection which has low traffic volumes except for the southbound left-turn movement onto KY 841 eastbound.

#### Geometrics / Right-of-way

An evaluation of the existing interchange features revealed the following:

- The interchange is a simple diamond without traffic signals.
- There is a railroad line that crosses Stone Street north of the interchange, but it appears to have minimal affect on the interchange operations.
- The exit ramps are single lane ramps, but the westbound ramp widens to two lanes 450 feet before the intersection (the eastbound exit ramp flares at the intersection).

#### Land Use, Future Development, and Historic Traffic Growth

In the immediate vicinity of the interchange, there is limited development. The topography around the interchange includes some steep slope areas which may be a limiting factor for development in the area. An analysis of historic traffic volumes for KY 841 showed annual increases of approximately 6-7% between 1984 and 2004. Stone Street Road is not a state highway; therefore historic volume data was not available.

#### Traffic Operations / Level of Service Analysis

Peak period turning movement counts were conducted in October 2004. Follow-up field observations were conducted in February and April 2005. For the two key intersections, AM and PM peak hour volumes are shown on Figure 9-1. Existing levels of service and delay using the highway capacity manual method are shown on Table 9-1.

**Table 9-1: 2004 Intersection Levels of Service for KY 841 / Stone Street Road**

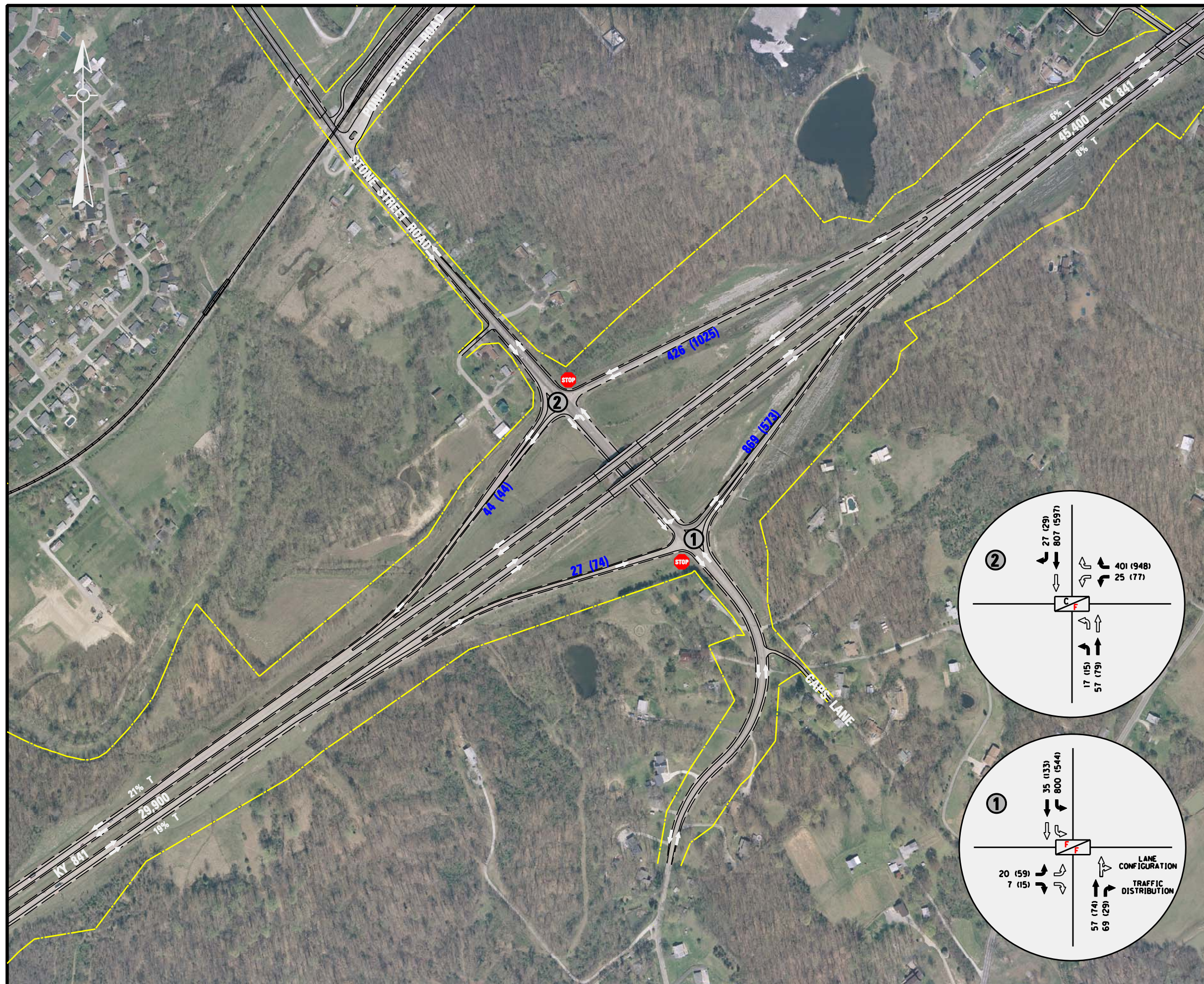
Intersection	Type	Approach	AM		PM	
			Avg. Delay	LOS	Avg. Delay	LOS
Stone Street Rd / KY 841 EB Ramps	Unsignalized	Eastbound Left	372.2	F	145.0	F
Stone Street Rd / KY 841 WB Ramps	Unsignalized	Westbound Left	23.3	C	18.3	C
		Westbound Right	12.2	B	62.9	F



# FIGURE 9-1: KY 841 & STONE STREET ROAD INTERCHANGE

## KEY ISSUES / DEFICIENCIES

- Poor levels of service on ramps from KY 841 to Stone Street Road.
- Field observations showed that the right turn movement on the WB Exit Ramp backs up frequently in the PM peak period with queue lengths averaging 10 vehicles. Vehicles turning left from the WB Exit Ramp experienced some delay while waiting for an adequate clearance gap, however, no queue lengths longer than 3 or 4 vehicles were observed.



## LEGEND

- — — EXISTING EDGE OF PAVEMENT
- — — EXISTING EDGE OF TRAVEL WAY
- — — EXISTING RIGHT OF WAY
- SIGNALIZED INTERSECTION
- STOP-CONTROLLED INTERSECTION
- 67,800 2004 AVERAGE DAILY TRAFFIC
- 980 (1080) 2004 AM (PM) PEAK HOUR VOLUMES
- 3% T PERCENT TRUCKS
- 2004 LEVEL OF SERVICE (AM/PM)
- 200 0 200 400 600 GRAPHIC SCALE IN FEET



While the HCM method shows the left turn from the eastbound off-ramp operates at LOS F, no significant queues or delays were observed at this intersection during the count and subsequent follow-up observation periods. Therefore, the traffic conditions at the eastbound ramp intersection do not appear to be as poor as indicated in Table 9-1. Furthermore, it is important to note that the volume of traffic turning left from the eastbound exit ramp is relatively modest at 20 vehicles in the AM peak hour and 59 vehicles in the PM peak hour.

The westbound ramp intersection also shows a poor level of service in the PM peak period for the right-turn movement. This poor operating condition was observed on more than one occasion, with average delays even longer than that shown on at least one occasion. Queue lengths for this movement were also evaluated using the HCM method to determine if the current storage is exceeded during peak periods. The current storage length for left and right turning vehicles is approximately 450 feet for each lane. The 95<sup>th</sup> percentile queue is shown on Table 9-2. The calculated queue length exceeds the storage for the WB right turn in the PM peak. Field observations performed on February 16 and 17 confirmed that vehicles back up to near the KY 841 mainline for the right turn onto Stone Street (but were never observed backing onto the mainline). This occurrence was not observed on every weekday that field staff was present, but was observed on more than one occasion. The delay during these times was greater than that indicated by the highway capacity software in Table 9-1. There was little delay or queuing observed for westbound left turning vehicles.

**Table 9-2: Queue Length Evaluation for  
Stone Street Road / KY 841 WB Ramps Intersection**

Approach / Movement	Design Hour	95 <sup>th</sup> Percentile Queue	Queue Length (ft)	Available Storage Length (ft)	Notes
WB Right	AM	2.8	70	450	Does <b>NOT</b> exceed available storage
	PM	22.5	563	450	<b>EXCEEDS</b> available storage

### Safety / Crash Analysis

The crash analysis for KY 841 did not show a crash rate problem for that highway. Detailed crash information was not available for Stone Street Road since it is a local road. Lines-of-sight at the two intersections appear to be adequate.

### Key Issues / Deficiencies

Based on the existing conditions analysis, the key issues / deficiencies are:

- Poor operating conditions and long delays at the study intersections, especially on the westbound exit ramp from KY 841 to Stone Street Road.
- Field observations showed that the right turn movement on the westbound exit ramp backs up frequently in the PM peak period.
- Vehicles turning left from the eastbound exit ramp experienced some delay while waiting for an adequate clearance gap; however, queue lengths were very short if present at all.

### 9.3 RANGE OF ALTERNATIVES

A number of potential improvement alternatives were developed to address the identified deficiencies. They include:

- **Alternative 1A** – Install traffic signal at the Stone Street Road / KY 841 eastbound off-ramp intersection
- **Alternative 1B** – Install traffic signal at the Stone Street Road / KY 841 westbound off-ramp intersection
- **Alternative 2** – Add a northbound auxiliary lane on Stone Street Road to better accommodate right turning traffic from the westbound KY 841 exit ramp. The right-turn would be converted from a STOP control to a free-flow movement with appropriate channelization and signage.
- **Alternative 4** – Extend the turn lanes on the KY 841 eastbound exit ramp to increase vehicle storage.

Figure 9-2 shows these alternatives on an aerial photo.

### 9.4 ANALYSIS AND EVALUATION OF ALTERNATIVES

#### Alternative 1A – Install Traffic Signal at Stone Street Road / KY 841 Eastbound Ramps

##### Traffic and Safety –

Level of Service Analysis – According to the HCS method, the eastbound left movement for the intersection experiences significant delay and poor level of service during the AM and PM peak periods. The addition of a signal would improve the levels of service to LOS C or better for all movements (LOS B overall).

Queue Length Analysis – There do not appear to be major queuing issues at this intersection today, though the HCM method does show 95<sup>th</sup> percentile queues extending back about 100 to 120 feet for the eastbound left. With the installation of a signal the maximum queue drops to 75 feet.

Signal Warrant Analysis – A traffic signal warrant evaluation was also performed to determine if the intersection meets or exceeds any of the MUTCD signal warrants. According to the MUTCD, there are eight warrants used to justify the installation of a traffic signal, four of which are relevant to this intersection. These four warrants are listed below along with a brief definition and a discussion of how they compare to the given conditions.

- **Warrant 1: Eight-Hour Vehicular Volume** – To satisfy this warrant, a minimum hourly volume must be exceeded for eight hours during an average day. Only four hours of data was collected during the original traffic count, therefore there is insufficient data to determine if the 8-hour warrant is met. If signalization of this





FIGURE 9-2: KY 841 & STONE STREET ROAD INTERCHANGE

ALTERNATIVES

- Alt. 1A - Install Traffic Signal at KY 841 EB Off-Ramp / Stone Street Road (Int. 1)
- Alt. 1B - Install Traffic Signal at KY 841 WB Off-Ramp / Stone Street Road (Int. 2)
- Alt. 2 - Construct NB Auxiliary Lane for Traffic Turning Right onto Stone Street Road from the WB KY 841 Off-Ramp
- Alt. 3 - Add Turn Lanes to KY 841 EB Off-Ramp

LEGEND

- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF TRAVEL WAY
- EXISTING RIGHT OF WAY
-  SIGNALIZED INTERSECTION
-  STOP-CONTROLLED INTERSECTION





intersection is selected as a recommended alternative, additional fill-in counts should be collected to provide justification for intersection signalization.

- Warrant 2: Four-Hour Vehicular Volume – For this analysis, the eastbound off-ramp approach was the minor street and Stone Street is the major street. The four hours of data obtained during the AM and PM traffic counts were used as the basis for this warrant analysis. Figure 4C-2 in the MUTCD was used as the threshold curve. The traffic volumes for all four hours did not plot above the threshold curve shown for an intersection with two lanes on the major approach and one lane on the minor approach. **Based on these traffic volumes, this warrant is not met.**
- Warrant 3: Peak Hour – For this warrant, traffic volumes during one hour must be such that they exceed the given threshold curve as shown on Figure 4C-4 in the MUTCD. From the traffic count data, the highest peak hour is from 7-8 AM. The traffic volumes during this hour plot below the threshold curve. **Therefore, this warrant is not satisfied.**
- Warrant 7: Crash Experience – This warrant is used when the primary reason for installing a signal is due to a history of severe and frequent crashes in the vicinity of the intersection. Because Stone Street Road is a local road, crash information was not available. As a result, there is insufficient data to determine if this warrant is met.

**Impacts** – There are no known adverse impacts associated with this alternative.

**Costs** – The estimated order of magnitude cost for this alternative is \$125,000 in year 2005 dollars.

Overall, the benefit of this signal installation is small and it would likely increase overall intersection delay. Furthermore, it does not meet the two traffic volume warrants for which data is available. Therefore, this signal installation is not recommended.

### **Alternative 1B – Install Traffic Signal at Stone Street Road / KY 841 WB Ramps**

#### **Traffic and Safety –**

Level of Service Analysis – The existing level of service analysis showed that the westbound right-turn movement experiences significant delay and a poor level of service in the PM peak period. Signalizing the intersection (using the same traffic volumes and intersection configuration) results in LOS C or better for all movements. Refer to Table 9-3 for more details.

**Table 9-3: Alternative 1B Level of Service and Delay Comparison for Stone Street Road / KY 841 WB Ramps**

Intersection	Scenario	Approach	AM		PM	
			Avg. Delay	LOS	Avg. Delay	LOS
Stone Street Rd / KY 841 WB Ramps	Existing Unsignalized	Westbound Left	23.3	C	18.3	C
		Westbound Right	12.2	B	<b>62.9</b>	<b>F</b>
	Signalized	Westbound	3.1	A	24.1	C
		Northbound	14.1	B	30.0	C
		Southbound	9.1	A	3.6	A
		<b>Whole Int.</b>	<b>7.5</b>	<b>A</b>	<b>17.1</b>	<b>B</b>

Queue Length Analysis – Based on the level of service analysis, the average delay is fairly low. However, given the single lane and the high right-turn volume the 95<sup>th</sup> percentile queue can still be expected to extend up the ramp past the end of the current left turn lane. Essentially, the signal will address the delay issue, but long queues may still build.

Signal Warrant Analysis – A traffic signal warrant evaluation was performed to determine if the intersection meets or exceeds any of the signal warrants as outlined in the Manual of Uniform Traffic Control Devices (MUTCD). The three warrants which are most relevant to this intersection are discussed below.

- Warrant 1: Eight-Hour Vehicular Volume – To satisfy this warrant, a minimum hourly volume must be exceeded for eight hours during an average day. Initially, only four hours of data was collected during the original traffic count. To determine if this warrant is met, a fill-in traffic count was conducted on March 22, 2005 from 9:00 AM to 4:00 PM. Assuming speeds in excess of 40 mph on Stone Street, the volumes exceed the reduced threshold values on Table 4C-1 for Condition A. **Therefore, this warrant is met** (assuming the high speed reduction).
- Warrant 2: Four-Hour Vehicular Volume – The westbound off-ramp is the minor street and Stone Street is the major street. The traffic volumes for the four highest hours plotted above the threshold curve (Figure 4C-2) for an intersection with one lane on the major approach and two lanes on the minor approach. **Based on these traffic volumes, this warrant is currently met.**
- Warrant 3: Peak Hour – For this warrant, traffic volumes during one hour must be such that they exceed the given threshold curve as shown on Figure 4C-4 in the MUTCD. From the traffic count data, the highest peak hour is from 4-5 PM. The traffic volumes during this hour plotted above the threshold curve. **Therefore, this warrant is satisfied.**

**Community / Environmental Impacts** – There are no known adverse impacts associated with this alternative.

**Costs** – The estimated order of magnitude cost for this alternative is \$125,000 in year 2005 dollars.

**Alternative 2 – Construct Northbound Through Lane for Traffic Turning Right onto Stone Street Road from the Westbound KY 841 Off-Ramp**

**Traffic and Safety** – For this interchange, the westbound right turn movement carries the highest volume of traffic (in the PM peak period). This results in a poor level of service for this movement as well as long delays, and a queue length that exceeds the available storage for that lane. In an attempt to reduce delay and the queue lengths, the construction of a northbound auxiliary lane for westbound right turning traffic was proposed. This alternative would allow the right-turn movement to operate as a free-flow lane. Drivers would not have to wait for an acceptable gap in traffic to complete the turn. A drawback of this alternative is that pedestrians on that side of the roadway would have to cross a free-flow ramp, however few if any pedestrians were observed during the count periods. Overall, this option would improve the delay and level of service for the right-turn movement. Given the relatively modest cost, this alternative is recommended for additional more detailed examination and potential implementation.

**Community / Environmental Impacts** – Right-of-way is somewhat limited along Stone Street in this area, however the addition of a single auxiliary lane may be possible without further right-of-way acquisition. The existing residential driveways would be tied back into the widened roadway. There are no known environmental issues associated with the proposed project.

**Costs** – The estimated order of magnitude cost for this alternative is approximately \$200,000 in year 2005 dollars.

**Alternative 3 – Extend Turn Lanes on KY 841 Eastbound Off-Ramp**

**Traffic and Safety** – According to the existing conditions level of service analysis, the eastbound left turn off of the ramp experiences poor levels of service (LOS F) and long average delay in both the AM and PM peak periods. Currently, the eastbound Off-ramp is one lane that flares out at the intersection approach to provide room for two vehicles (right and left turning traffic). The ramp could be widened to two lanes to provide a separate lane for the left turn movement and the right turn movement. This would provide additional capacity for vehicles turning left. Evaluation of traffic volumes on this ramp revealed that they are very low (the highest volume is 59 vehicles during the PM peak period for the left turn movement). Widening the ramp to provide additional storage will not improve intersection LOS and few queues were actually observed.

**Impacts** – There are no known adverse impacts associated with this alternative.

**Costs** – The estimated order of magnitude cost for this alternative is \$130,000 in year 2005 dollars.

Again, this alternative seems unwarranted given the low ramp traffic volumes and lack of observed queues. It is therefore not recommended at this time.



## 9.5 SUMMARY EVALUATION AND COMPARISON OF ALTERNATIVES

A graphical summary evaluation of the proposed KY 841 / Stone Street Road interchange alternatives is provided in Table 9-4.

**Table 9-4: KY 841 / Stone Street Road Alternative Summary Evaluation and Comparison Matrix**

Alt.	Description	Traffic				Community / Environmental Impacts	Cost	Recommendation
		Congestion	Operations	Use	Safety			
1A	Install Traffic Signal at KY 841 EB Off-Ramp / Stone Street Road	◐	◐	◐	◐	●	●	NO
1B	Install Traffic Signal at KY 841 WB Off-Ramp / Stone Street Road	◐	◐	◐	◐	●	●	NO
2	Construct NB Through Lane for Traffic Turning Right onto Stone Street Road from the WB KY 841 Off-Ramp	●	●	●	◐	○	◐	YES
3	Add Turn Lanes to KY 841 EB Off-Ramp	◐	◐	○	◐	●	●	NO

**Ratings Guide:** ○ = Poor    ◐ = Fair    ● = Good

## 9.6 RECOMMENDATION AND PHASING

For this interchange there is only one intersection that requires improvement: the Stone Street / KY 841 Westbound ramps intersection. To facilitate the right turn from the ramp onto Stone Street there are two possible options – install a signal or add the right turn into a northbound auxiliary lane. Of these the auxiliary lane appears to offer the best operating condition for this relatively undeveloped low traffic area, handling what is one of the two heaviest flows through the entire interchange. None of the other proposed projects are recommended at this time.

## Appendix H – AASHTO's Minimum Guidelines for Freeways

Table 17 – AASHTO Minimum Guidelines

Area Type	Rural			Urban			Urban/Rural		
Design Element	Mainline	Ramps	Loops	Mainline	Ramps	Loops	Directional	Entrance	Exit
Design Speed (MPH) (507, 829, 830)	70	35	25	50	25	25	40		
Level of Service (508)	C			D					
Driving Lane Width (508, 842)	12'	15'	15'	12'	15'	15'			
Inside Shoulder Width (4-lane freeway & ramps) (509,514,517,842)	4'	2'-4'	2'-4'	4'	2'-4'	2'-4'	1'-6'		
Inside Shoulder Width (6-lane, Truck DDHV <=250) (509,514,517,842)				10'					
Inside Shoulder Width (6-lane, Truck DDHV > 250) (509,514,517,842)				12'					
Outside Shoulder Width (Truck DDHV <= 250) (509, 842)	10'	8'-10'	8'-10'	10'	8'-10'	8'-10'	8'-10'		
Outside Shoulder Width (Truck DDHV > 250) (509, 842)	12'			12'					
Depressed Median Width <sup>1</sup> (513)	36'			36'					
Over Freeway Vertical Bridge Clearance (510, 767)	16'-00"								
Bridge Width (Horizontal) ADT>2000 (390)	Traveled Lanes + shoulders (approach roadway width)								
Bridge Width (Horizontal) Length > 200' <sup>2</sup>	Traveled Lanes + 4' each side								
Design ADT (vehicles per day)	> 6,000	750-1,500		>6,000	750-1,500				
Clear Zone (Fill Slope 1V:4H or flatter) <sup>3</sup>	30'-46'	14'-18'		20'-28'	14'-18'				
Clear Zone (Cut Slope 1V:3H or flatter) <sup>3</sup>	22'-30'	14'-16'		14'-22'	14'-16'				
Superelevation (509)	+/- 8%								
Horizontal Curvature Minimum Radius (8% max SE) (161)	1820'	350'	170'	750'	170'	170'	465'		
Minimum Runoff (8% max SE) (174)	240'	155'	137'	192'	137'	137'	165'		
Minimum Runout (8% max SE) (174)	60'	39'	34'	48'	34'	34'	41'		
Maximum Grade (510, 833)	4%	5%-7%	5%-7%	5%	5%-7%	5%-7%	4%-6%		
Stopping Sight Distance (112)	730'	250'	155'	425'	155'	155'	305'		
Taper Ratio (849)								50:1	
Divergence Angle (853)									2%-5%

Note: Page number references from AASHTO's *A Policy on Geometric Design of Highways and Streets* are provided in parenthesis.

<sup>1</sup> AASHTO Draft *A Policy on Design Standards - Interstate System* calls for a minimum of 36' in rural areas, but page 513 of AAHSTO's *A Policy on Geometric Design of Highways and Streets* specifies 50'.

<sup>2</sup> This item is referenced in the AASHTO Draft *A Policy on Design Standards - Interstate System*

<sup>3</sup> Information on clear zones is provided in AASHTO's *Roadside Design Guide*.

## Appendix I – Flood Insurance Rate Map



## LEGEND



### SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Area of Special Flood Hazard formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no base flood elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); base flood elevations determined.



### FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



### OTHER FLOOD AREAS

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.



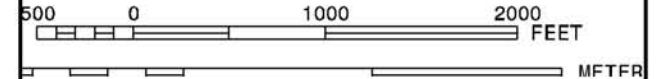
### OTHER AREAS

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.

Original Flood Insurance Program at 1-800-650-0620.



MAP SCALE 1" = 1000'



NFIP

PANEL 0015C

NATIONAL FLOOD INSURANCE PROGRAM

## FIRM FLOOD INSURANCE RATE MAP FRANKLIN COUNTY, KENTUCKY AND INCORPORATED AREAS

### PANEL 15 OF 205

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

#### CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FRANKLIN COUNTY	210280	0015	C

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER  
21073C0015C

EFFECTIVE DATE  
SEPTEMBER 28, 2007

Federal Emergency Management Agency

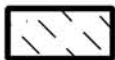
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

**ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.

**ZONE D** Areas in which flood hazards are undetermined, but possible.



COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS



OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.



1% annual chance floodplain boundary



0.2% annual chance floodplain boundary



Floodway boundary



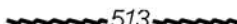
Zone D boundary



CBRS and OPA boundary



Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.



(EL 987)

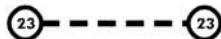
Base Flood Elevation line and value; elevation in feet\*

Base Flood Elevation value where uniform within zone; elevation in feet\*

\*Referenced to the North American Vertical Datum of 1988



Cross section line



Transect line

97°07'30", 32°22'30"

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

4276000mE

1000-meter Universal Transverse Mercator grid values, zone 16

600000 FT

5000-foot grid ticks; Kentucky State Plane coordinate system, Single zone (FIPZONE 1600), Transverse Mercator

DX5510 x

Bench mark (see explanation in Notes to Users section of this FIRM panel)

● M1.5

River Mile

MAP REPOSITORIES

Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE  
FLOOD INSURANCE RATE MAP  
SEPTEMBER 28, 2007

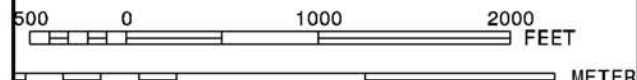
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

SEPTEMBER 28, 2007 – to update corporate limits, to change Base Flood Elevations, to add Base Flood Elevations, to change Special Flood Hazard Areas, to update map format, to update

National Flood Insurance Program at 1-800-650-6620.



MAP SCALE 1" = 1000'



NFIP

PANEL 0015C

**FIRM**

**FLOOD INSURANCE RATE MAP**  
**FRANKLIN COUNTY,**  
**KENTUCKY**  
**AND INCORPORATED AREAS**

**PANEL 15 OF 205**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY

FRANKLIN COUNTY

NUMBER

210280

PANEL

0015

SUFFIX

C

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



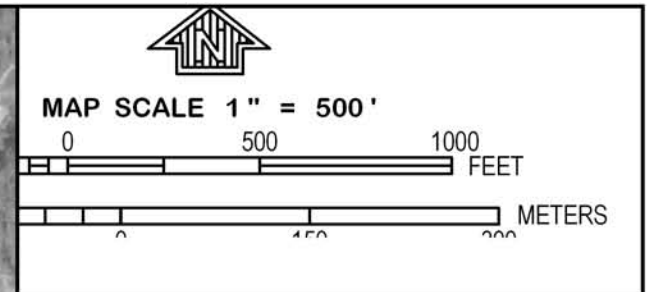
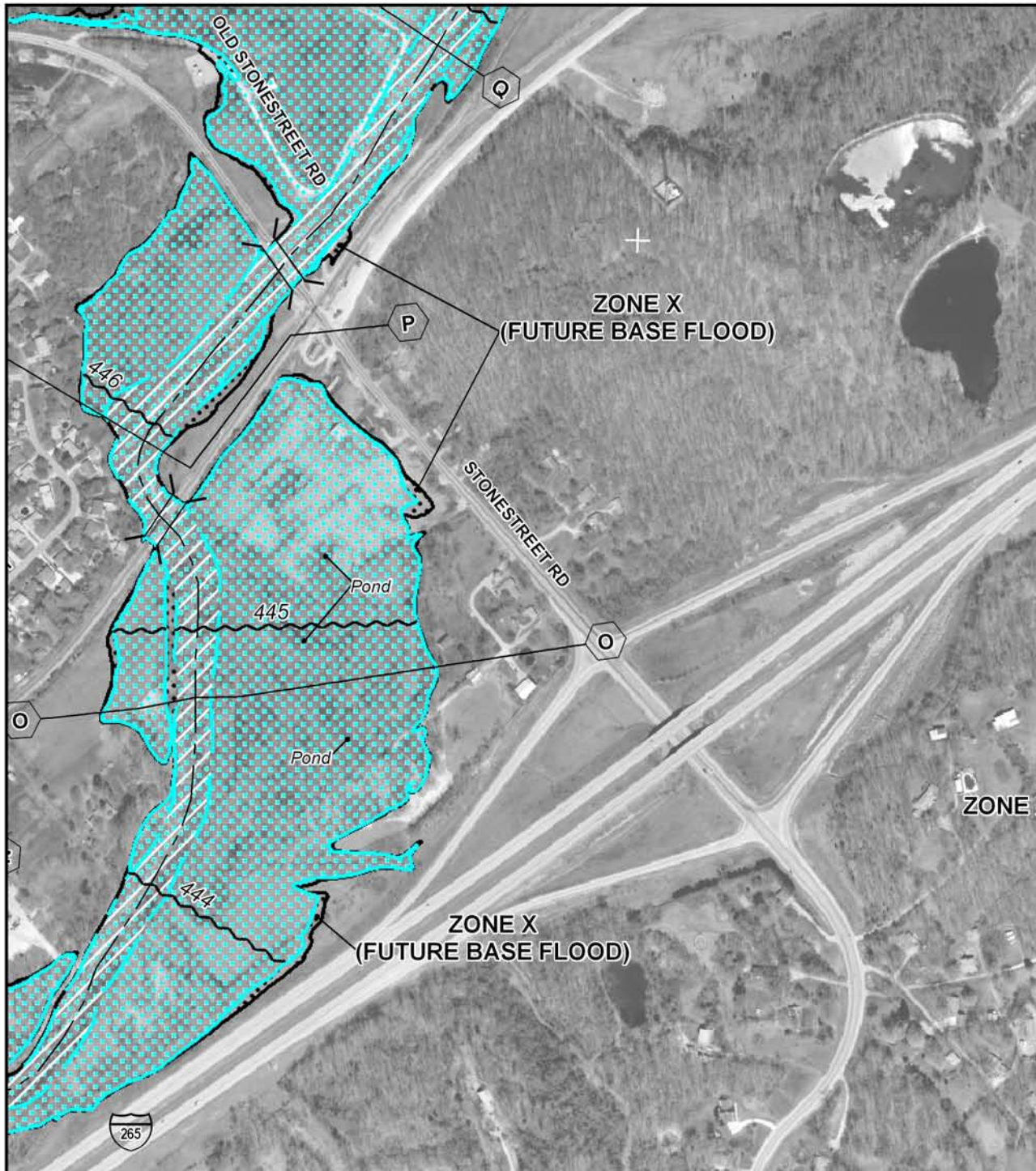
**MAP NUMBER**  
**21073C0015C**

**EFFECTIVE DATE**  
**SEPTEMBER 28, 2007**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)





NFIP  
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0106E

## FIRM

### FLOOD INSURANCE RATE MAP

METROPOLITAN GOVERNMENT OF  
**LOUISVILLE AND  
JEFFERSON COUNTY,  
KENTUCKY**  
AND INCORPORATED AREAS

**PANEL 106 OF 144**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LOUISVILLE-JEFFERSON COUNTY METRO GOVERNMENT	210120	0106	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER  
21111C0106E**

**MAP REVISED  
DECEMBER 5, 2006**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

## Appendix J – Threatened and Endangered Species Reports



Species  
Information  
KDFWR  
Maps  
Public  
Hunting  
Area Maps  
Game Maps  
Download  
GIS Data  
Links

## Species Information

Federal Threatened, Endangered, and Candidate Species observations for selected counties

Linked life history provided courtesy of [NatureServe Explorer](#).

Records may include both recent and historical observations.

[US Status Definitions](#)   [Kentucky Status Definitions](#)

List Federal Threatened, Endangered, and Candidate Species observations in 1 selected county.

Selected county is: Jefferson.

Scientific Name and Life History	Common Name and Pictures	Class	County	US Status	KY Status	WAP	Reference
<a href="#">Alosa alabamae</a>	<a href="#">Alabama Shad</a>	Actinopterygii	Jefferson	C	E	<a href="#">Yes</a>	<a href="#">Reference</a>
<a href="#">Cyprogenia stegaria</a>	<a href="#">Fanshell</a>	Bivalvia	Jefferson	LE	E	<a href="#">Yes</a>	<a href="#">Reference</a>
<a href="#">Falco peregrinus</a>	<a href="#">Peregrine Falcon</a>	Aves	Jefferson	PS: LE	E	<a href="#">Yes</a>	<a href="#">Reference</a>
<a href="#">Lampsilis abrupta</a>	<a href="#">Pink Mucket</a>	Bivalvia	Jefferson	LE	E	<a href="#">Yes</a>	<a href="#">Reference</a>
<a href="#">Myotis grisescens</a>	<a href="#">Gray Myotis</a>	Mammalia	Jefferson	LE	T	<a href="#">Yes</a>	<a href="#">Reference</a>
<a href="#">Myotis sodalis</a>	<a href="#">Indiana Bat</a>	Mammalia	Jefferson	LE	E	<a href="#">Yes</a>	<a href="#">Reference</a>
<a href="#">Nerodia erythrogaster neglecta</a>	<a href="#">Copperbelly Water Snake</a>	Reptilia	Jefferson	PS: LT	S	<a href="#">Yes</a>	<a href="#">Reference</a>
<a href="#">Obovaria retusa</a>	<a href="#">Ring Pink</a>	Bivalvia	Jefferson	LE	E	<a href="#">Yes</a>	<a href="#">Reference</a>
<a href="#">Oceanodroma castro</a>	<a href="#">Band-rumped Storm-petrel</a>	Aves	Jefferson	PS: C	N		<a href="#">Reference</a>
<a href="#">Plethobasus cooperianus</a>	<a href="#">Orangefoot Pimpleback</a>	Bivalvia	Jefferson	LE	E	<a href="#">Yes</a>	<a href="#">Reference</a>
<a href="#">Pleurobema clava</a>	<a href="#">Clubshell</a>	Bivalvia	Jefferson	LE, XN	E	<a href="#">Yes</a>	<a href="#">Reference</a>
<a href="#">Potamilus capax</a>	<a href="#">Fat Pocketbook</a>	Bivalvia	Jefferson	LE	E	<a href="#">Yes</a>	<a href="#">Reference</a>
<a href="#">Pseudanophthalmus troglodytes</a>	<a href="#">Louisville Cave Beetle</a>	Insecta	Jefferson	C	T		<a href="#">Reference</a>
<a href="#">Sternula antillarum athalassos</a>	<a href="#">Interior Least Tern</a>	Aves	Jefferson	LE	E	<a href="#">Yes</a>	<a href="#">Reference</a>

14 species are listed

**Report of  
Endangered, Threatened, and Special Concern  
Plants, Animals, and Natural Communities  
for Jefferson County, Kentucky**

**Kentucky State Nature Preserves  
Commission  
801 Schenkel Lane  
Frankfort, KY 40601  
(502) 573-2886 (phone)  
(502) 573-2355 (fax)**

**[www.naturepreserves.ky.gov](http://www.naturepreserves.ky.gov)**

# Kentucky State Nature Preserves Commission

## Key for County List Report

Within a county, elements are arranged first by taxonomic complexity (plants first, natural communities last), and second by scientific name. A key to status, ranks, and count data fields follows.

### STATUS

KSNPC: Kentucky State Nature Preserves Commission status:

N or blank = none    E = endangered    T = threatened    S = special concern    H = historic    X = extirpated

USESA: U.S. Fish and Wildlife Service status:

blank = none    C = candidate    LT = listed as threatened    LE = listed as endangered  
SOMC = Species of Management Concern

### RANKS

GRANK: Estimate of element abundance on a global scale:

G1 = Critically imperiled	GU = Unrankable
G2 = Imperiled	G#? = Inexact rank (e.g. G2?)
G3 = Vulnerable	G#Q = Questionable taxonomy
G4 = Apparently secure	G#T# = Intraspecific taxa (Subspecies and variety abundances are coded with a 'T' suffix; the 'G' portion of the rank then refers to the entire species)
G5 = Secure	
GH = Historic, possibly extinct	GNR = Unranked
GX = Presumed extinct	GNA = Not applicable

SRANK: Estimate of element abundance in Kentucky:

S1 = Critically imperiled	SU = Unrankable	Migratory species may have separate ranks for different population segments (e.g. S1B, S2N, S4M): S#B = Rank of breeding population S#N = Rank of non-breeding population S#M = Rank of transient population
S2 = Imperiled	S#? = Inexact rank (e.g. G2?)	
S3 = Vulnerable	S#Q = Questionable taxonomy	
S4 = Apparently secure	S#T# = Intraspecific taxa	
S5 = Secure	SNR = Unranked	
SH = Historic, possibly extirpated	SNA = Not applicable	
SX = Presumed extirpated		

### COUNT DATA FIELDS

# OF OCCURRENCES: Number of occurrences of a particular element from a county. Column headings are as follows:

E - currently reported from the county  
H - reported from the county but not seen for at least 20 years  
F - reported from county & cannot be relocated but for which further inventory is needed  
X - known to have extirpated from the county  
U - reported from a county but cannot be mapped to a quadrangle or exact location.



The data from which the county report is generated is continually updated. The date on which the report was created is in the report footer. Contact KSNPC for a current copy of the report.

Please note that the quantity and quality of data collected by the Kentucky Natural Heritage Program are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Kentucky have never been thoroughly surveyed, and new species of plants and animals are still being discovered. For these reasons, the Kentucky Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of Kentucky. Heritage reports summarize the existing information known to the Kentucky Natural Heritage Program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

KSNPC appreciates the submission of any endangered species data for Kentucky from field observations. For information on data reporting or other data services provided by KSNPC, please contact the Data Manager at:

Kentucky State Nature Preserves Commission  
801 Schenkel Lane  
Frankfort, KY 40601  
(502) 573-2886 (phone)  
(502) 573-2355 (fax)  
email: [naturepreserves@ky.gov](mailto:naturepreserves@ky.gov)  
internet: [www.naturepreserves.ky.gov](http://www.naturepreserves.ky.gov)

County Report of Endangered, Threatened, and Special Concern Plants, Animals, and Natural Communities of Kentucky  
Kentucky State Nature Preserves Commission

County	Taxonomic Group	Scientific name	Common name	Statuses	Ranks	# of Occurrences				
						E	H	F	X	U
Jefferson	Vascular Plants	<i>Aristida ramosissima</i>	Branched Three-awn Grass	H /	G5 / SH	0	1	0	0	0
Jefferson	Vascular Plants	<i>Cabomba caroliniana</i>	Carolina Fanwort	T /	G3G5 / S2	0	1	0	1	0
Jefferson	Vascular Plants	<i>Castanea pumila</i>	Allegheny Chinkapin	T /	G5 / S2	0	1	0	0	0
Jefferson	Vascular Plants	<i>Dryopteris carthusiana</i>	Spinulose Wood Fern	S /	G5 / S3	0	0	1	0	0
Jefferson	Vascular Plants	<i>Heteranthera dubia</i>	Grassleaf Mud-plantain	S /	G5 / S3	0	1	0	0	0
Jefferson	Vascular Plants	<i>Leavenworthia exigua</i> var. <i>laciniata</i>	Kentucky Gladecress	E / C	G4T1T2 / S1S2	10	0	2	0	0
Jefferson	Vascular Plants	<i>Podostemum ceratophyllum</i>	Threadfoot	S /	G5 / S3	0	1	0	0	0
Jefferson	Vascular Plants	<i>Pontederia cordata</i>	Pickereel-weed	T /	G5 / S1S2	0	1	0	0	0
Jefferson	Vascular Plants	<i>Potamogeton illinoensis</i>	Illinois Pondweed	S /	G5 / S2	0	1	0	0	0
Jefferson	Vascular Plants	<i>Sagittaria graminea</i>	Grassleaf Arrowhead	T /	G5 / S1S2	0	2	0	0	0
Jefferson	Vascular Plants	<i>Solidago shortii</i>	Short's Goldenrod	E / LE	G1 / S1	0	0	0	1	0
Jefferson	Vascular Plants	<i>Stellaria longifolia</i>	Longleaf Stitchwort	S /	G5 / S2S3	1	0	0	0	0
Jefferson	Vascular Plants	<i>Trichostema setaceum</i>	Narrowleaved Bluecurls	E /	G5 / S1	1	0	0	0	0
Jefferson	Vascular Plants	<i>Trifolium stoloniferum</i>	Running Buffalo Clover	T / LE	G3 / S2S3	2	0	0	1	0
Jefferson	Vascular Plants	<i>Vallisneria americana</i>	Eelgrass	S /	G5 / S2S3	2	1	0	0	0
Jefferson	Vascular Plants	<i>Veratrum woodii</i>	Wood's Bunchflower	T /	G5 / S2	0	1	0	0	0
Jefferson	Vascular Plants	<i>Viola septemloba</i> var. <i>egglesonii</i>	Eggleston's Violet	S /	G4 / S3	5	0	0	0	0
Jefferson	Vascular Plants	<i>Vitis labrusca</i>	Northern Fox Grape	T /	G5 / S2S3	0	1	0	0	0
Jefferson	Aquatic Snails	<i>Leptoxis praerosa</i>	Onyx Rocksnail	S / SOMC	G5 / S3S4	0	1	0	0	0
Jefferson	Aquatic Snails	<i>Lithasia verrucosa</i>	Varicose Rocksnail	S / SOMC	G4Q / S3S4	1	0	0	0	0
Jefferson	Terrestrial Snails	<i>Webbhelix multilineata</i>	Striped Whitelip	T /	G5 / S1S2	1	0	0	0	0
Jefferson	Freshwater Mussels	<i>Alasmidonta marginata</i>	Elktoe	T / SOMC	G4 / S2	0	0	0	1	0
Jefferson	Freshwater Mussels	<i>Cumberlandia monodonta</i>	Spectaclecase	E / PE	G3 / S1	0	0	0	1	0
Jefferson	Freshwater Mussels	<i>Cyprogenia stegaria</i>	Fanshell	E / LE	G1Q / S1	0	0	0	1	0
Jefferson	Freshwater Mussels	<i>Epioblasma triquetra</i>	Snuffbox	E / PE	G3 / S1	0	0	0	1	0
Jefferson	Freshwater Mussels	<i>Hemistena lata</i>	Cracking Pearlymussel	X / LE	G1 / SX	0	0	0	1	0
Jefferson	Freshwater Mussels	<i>Lampsilis abrupta</i>	Pink Mucket	E / LE	G2 / S1	0	1	0	0	0
Jefferson	Freshwater Mussels	<i>Obovaria retusa</i>	Ring Pink	E / LE	G1 / S1	0	0	0	1	0

County Report of Endangered, Threatened, and Special Concern Plants, Animals, and Natural Communities of Kentucky  
 Kentucky State Nature Preserves Commission

County	Taxonomic Group	Scientific name	Common name	Statuses	Ranks	# of Occurrences				
						E	H	F	X	U
Jefferson	Freshwater Mussels	<i>Plethobasus cooperianus</i>	Orangefoot Pimpleback	E / LE	G1 / S1	0	0	0	1	0
Jefferson	Freshwater Mussels	<i>Plethobasus cyphus</i>	Sheepnose	E / PE	G3 / S1	1	1	0	0	0
Jefferson	Freshwater Mussels	<i>Pleurobema clava</i>	Clubshell	E / LE	G2 / S1	0	2	0	0	0
Jefferson	Freshwater Mussels	<i>Pleurobema rubrum</i>	Pyramid Pigtoe	E / SOMC	G2G3 / S1	0	0	0	1	0
Jefferson	Freshwater Mussels	<i>Potamilus capax</i>	Fat Pocketbook	E / LE	G1G2 / S1	0	1	0	0	0
Jefferson	Freshwater Mussels	<i>Quadrula cylindrica cylindrica</i>	Rabbitsfoot	T / C	G3G4T3 / S2	0	0	0	1	0
Jefferson	Freshwater Mussels	<i>Simpsonaias ambigua</i>	Salamander Mussel	T / SOMC	G3 / S2S3	1	1	0	0	0
Jefferson	Freshwater Mussels	<i>Villosa lienosa</i>	Little Spectaclecase	S /	G5 / S3S4	0	1	0	0	0
Jefferson	Crustaceans	<i>Gammarus bousfieldi</i>	Bousfield's Amphipod	E / SOMC	G1 / S1	0	1	0	0	0
Jefferson	Crustaceans	<i>Orconectes jeffersoni</i>	Louisville Crayfish	E / SOMC	G1 / S1	12	9	0	0	0
Jefferson	Insects	<i>Calephelis borealis</i>	Northern Metalmark	T /	G3G4 / S2	0	2	0	0	0
Jefferson	Insects	<i>Nicrophorus americanus</i>	American Burying Beetle	X / LE	G2G3 / SX	0	0	0	1	0
Jefferson	Insects	<i>Pseudanopthalmus troglodytes</i>	Louisville Cave Beetle	T / C	G1 / S1	1	1	0	0	0
Jefferson	Insects	<i>Satyrrium favonius ontario</i>	Northern Oak Hairstreak	S /	G4T4 / S2	0	0	1	0	0
Jefferson	Insects	<i>Speyeria idalia</i>	Regal Fritillary	H / SOMC	G3 / SH	0	0	0	1	0
Jefferson	Fishes	<i>Acipenser fulvescens</i>	Lake Sturgeon	E / SOMC	G3G4 / S1	0	1	0	0	0
Jefferson	Fishes	<i>Alosa alabamae</i>	Alabama Shad	E / SOMC	G3 / S1	0	1	0	0	0
Jefferson	Fishes	<i>Atractosteus spatula</i>	Alligator Gar	E / SOMC	G3G4 / S1	0	1	0	0	0
Jefferson	Fishes	<i>Ictiobus niger</i>	Black Buffalo	S /	G5 / S3	0	1	0	0	0
Jefferson	Fishes	<i>Lota lota</i>	Burbot	S /	G5 / S2	1	1	0	0	0
Jefferson	Fishes	<i>Noturus stigmosus</i>	Northern Madtom	S / SOMC	G3 / S2S3	1	0	0	0	0
Jefferson	Fishes	<i>Percopsis omiscomaycus</i>	Trout-perch	S / SOMC	G5 / S3	0	5	0	0	0
Jefferson	Reptiles	<i>Apalone mutica mutica</i>	Midland Smooth Softshell	S /	G5T5 / S3	1	0	0	0	0
Jefferson	Reptiles	<i>Clonophis kirtlandii</i>	Kirtland's Snake	T / SOMC	G2 / S2	19	5	0	0	1
Jefferson	Reptiles	<i>Nerodia erythrogaster neglecta</i>	Copperbelly Water Snake	S / SOMC	G5T3 / S3	0	1	0	0	0
Jefferson	Reptiles	<i>Ophisaurus attenuatus longicaudus</i>	Eastern Slender Glass Lizard	T /	G5T5 / S2	0	1	0	0	0



County Report of Endangered, Threatened, and Special Concern Plants, Animals, and Natural Communities of Kentucky  
 Kentucky State Nature Preserves Commission

County	Taxonomic Group	Scientific name	Common name	Statuses	Ranks	# of Occurrences				
						E	H	F	X	U
Jefferson	Breeding Birds	<i>Accipiter striatus</i>	Sharp-shinned Hawk	S /	G5 / S3B,S4N	1	0	0	0	0
Jefferson	Breeding Birds	<i>Actitis macularius</i>	Spotted Sandpiper	E /	G5 / S1B	1	0	0	0	0
Jefferson	Breeding Birds	<i>Aimophila aestivalis</i>	Bachman's Sparrow	E / SOMC	G3 / S1B	0	0	0	3	0
Jefferson	Breeding Birds	<i>Ammodramus henslowii</i>	Henslow's Sparrow	S / SOMC	G4 / S3B	2	0	0	0	0
Jefferson	Breeding Birds	<i>Anas discors</i>	Blue-winged Teal	T /	G5 / S1S2B	0	1	0	1	0
Jefferson	Breeding Birds	<i>Ardea alba</i>	Great Egret	T /	G5 / S2B	1	0	0	0	0
Jefferson	Breeding Birds	<i>Botaurus lentiginosus</i>	American Bittern	H /	G4 / SHB	0	0	0	1	0
Jefferson	Breeding Birds	<i>Bubulcus ibis</i>	Cattle Egret	S /	G5 / S1S2B	0	0	0	1	0
Jefferson	Breeding Birds	<i>Chondestes grammacus</i>	Lark Sparrow	T /	G5 / S2S3B	0	1	0	0	0
Jefferson	Breeding Birds	<i>Cistothorus platensis</i>	Sedge Wren	S /	G5 / S3B	1	0	0	0	0
Jefferson	Breeding Birds	<i>Egretta caerulea</i>	Little Blue Heron	E /	G5 / S1B	0	0	0	1	0
Jefferson	Breeding Birds	<i>Falco peregrinus</i>	Peregrine Falcon	E / SOMC	G4 / S1B	3	0	0	0	0
Jefferson	Breeding Birds	<i>Haliaeetus leucocephalus</i>	Bald Eagle	T / Delisted	G5 / S2B,S2S3N	1	0	0	0	0
Jefferson	Breeding Birds	<i>Ixobrychus exilis</i>	Least Bittern	T /	G5 / S1S2B	0	0	0	1	0
Jefferson	Breeding Birds	<i>Lophodytes cucullatus</i>	Hooded Merganser	T /	G5 / S1S2B,S3S4N	1	0	0	0	0
Jefferson	Breeding Birds	<i>Nyctanassa violacea</i>	Yellow-crowned Night-heron	T /	G5 / S2B	2	0	0	3	0
Jefferson	Breeding Birds	<i>Nycticorax nycticorax</i>	Black-crowned Night-heron	T /	G5 / S1S2B	1	0	0	4	0
Jefferson	Breeding Birds	<i>Pandion haliaetus</i>	Osprey	S /	G5 / S2S3B	1	0	0	0	0
Jefferson	Breeding Birds	<i>Passerculus sandwichensis</i>	Savannah Sparrow	S /	G5 / S2S3B,S2S3N	1	1	0	0	0
Jefferson	Breeding Birds	<i>Phalacrocorax auritus</i>	Double-crested Cormorant	T /	G5 / S2B	1	0	0	0	0
Jefferson	Breeding Birds	<i>Podilymbus podiceps</i>	Pied-billed Grebe	E /	G5 / S1B,S4N	0	0	0	1	0
Jefferson	Breeding Birds	<i>Rallus elegans</i>	King Rail	E /	G4 / S1B	0	1	0	1	0
Jefferson	Breeding Birds	<i>Riparia riparia</i>	Bank Swallow	S /	G5 / S3B	0	0	0	1	0
Jefferson	Breeding Birds	<i>Sternula antillarum athalassos</i>	Interior Least Tern	T / LE	G4T2Q / S2B	0	1	0	0	0
Jefferson	Breeding Birds	<i>Thryomanes bewickii</i>	Bewick's Wren	S / SOMC	G5 / S3B	0	2	0	0	0

County Report of Endangered, Threatened, and Special Concern Plants, Animals, and Natural Communities of Kentucky  
 Kentucky State Nature Preserves Commission

County	Taxonomic Group	Scientific name	Common name	Statuses	Ranks	# of Occurrences				
						E	H	F	X	U
Jefferson	Breeding Birds	<i>Tyto alba</i>	Barn Owl	S /	G5 / S3	2	1	0	0	0
Jefferson	Mammals	<i>Myotis grisescens</i>	Gray Myotis	T / LE	G3 / S2	2	0	0	0	0
Jefferson	Mammals	<i>Myotis sodalis</i>	Indiana Bat	E / LE	G2 / S1S2	3	0	0	0	0
Jefferson	Mammals	<i>Nycticeius humeralis</i>	Evening Bat	S /	G5 / S3	1	0	0	0	0
Jefferson	Communities	<i>Deep soil mesophytic forest</i>		N /	GNR / S3S4	1	0	0	0	0
<b>Jefferson County Total:</b>						<b>86</b>	<b>58</b>	<b>4</b>	<b>32</b>	<b>1</b>

## Appendix K – KY 841 and Stonestreet Road Plans

DATE	NO. 2	NO. 3	NO. 4
10-17-84	2	3	4
11-1-84			

REVIEWED BY  
DIVISION OF CONSTRUCTION

PLANS CHECKED BY  
FINAL CHECK BY

SHEET NO.	DESCRIPTION
1	LAYOUT SHEET
2-2h	TYPICAL SECTIONS - SUMMARY OF QUANTITIES SHEETS
3-41	PLAN AND PROFILE SHEETS
	UTILITY PLAN SHEETS
	RIGHT OF WAY SUMMARY SHEETS
42-68e	RIGHT OF WAY STRIP MAP SHEETS
	DETAIL SHEETS
	REFERENCE SHEETS
	SOIL PROFILE SHEETS
69-71	PIPE DRAINAGE SHEETS
	CROSS SECTION SHEETS

STANDARD DRAWINGS		
NUMBER	DESCRIPTION	
RBB-002-04	RBR-025-01	RPN-120-03
RBC-001-04	RBR-030-01	RPN-001
RBI-001-03	RPR-001-01	RPN-010-01
RBI-002-01	RBR-045-01	RPN-015
RBI-003-01	RDB-280-02	RPS-010-04
RBI-005-01	RDB-281	RPS-030-01
RBI-006-01	RDB-282	RRE-005-02
RPS-020-06	RDB-283	RBB-003
RPS-031-01	RDX-160-02	TSC-260-05
RPS-036-01	RGS-002-02	TSC-261-02
RPS-037-01	RGX-001-02	RGS-001-02
RBR-015-01	RPM-100-03	RPM-110-01
RBR-016	RPR-010	TSC-200-03
<u>TOTAL STANDARD DRAWINGS 39</u>		

TOTAL STANDARD DRAWINGS 39

# COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

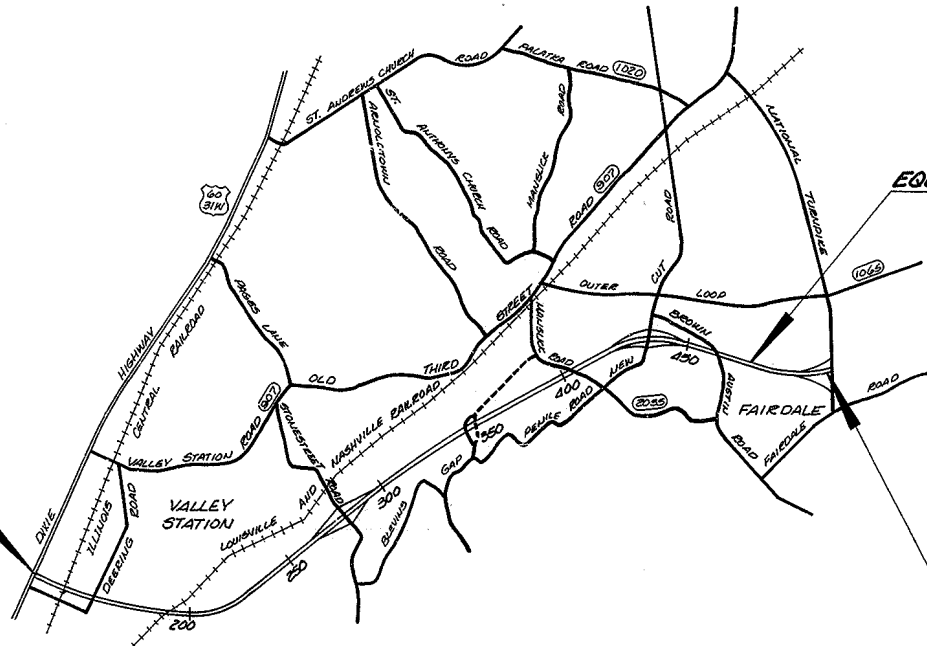
## PLANS OF PROPOSED PROJECT THESE PLANS ARE FOR SURFACING ONLY

APC 841-1(32)

## JEFFERSON COUNTY

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
JEFFERSON CO.	APC 841-1(32)	1	71

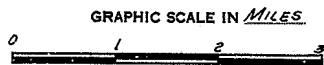
STA. 119+52.25 JEFF. FRWY.  
BEGIN PROJECT



EQUATION STA. 478+00.00 BK. =  
STA. 474+13.49 AH.

STA. 519+13.50 JEFF. FRWY.  
END PROJECT

THIS PROJECT IS A FULLY  
CONTROLLED ACCESS HIGHWAY



### LAYOUT MAP

GROSS LENGTH 40347.76 LIN. FT. 7.641 MILES	GROSS LENGTH 40347.76 LIN. FT. 7.641 MILES	GROSS LENGTH 40347.76 LIN. FT. 7.641 MILES	GROSS LENGTH 40347.76 LIN. FT. 7.641 MILES
ADDED FOR EQUALITIES 224.31 LIN. FT. 0.004 MILES	ADDED FOR EQUALITIES 224.31 LIN. FT. 0.004 MILES	ADDED FOR EQUALITIES 224.31 LIN. FT. 0.004 MILES	ADDED FOR EQUALITIES 224.31 LIN. FT. 0.004 MILES
NET LENGTH 39202.76 LIN. FT. 7.424 MILES	NET LENGTH 39202.76 LIN. FT. 7.424 MILES	NET LENGTH 39202.76 LIN. FT. 7.424 MILES	NET LENGTH 39202.76 LIN. FT. 7.424 MILES
NOT INCLUDED	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED
RAILROAD CROSSINGS NO. 1145.0	RAILROAD CROSSINGS NO. 1145.0	RAILROAD CROSSINGS NO. 1145.0	RAILROAD CROSSINGS NO. 1145.0
BRIDGES 1145.0	BRIDGES 1145.0	BRIDGES 1145.0	BRIDGES 1145.0

### DESIGN CRITERIA

CLASS OF HIGHWAY 1  
TYPE OF TERRAIN ROLLING  
DESIGN SPEED 70 mph  
REQUIRED NPSD 600  
REQUIRED PSD  
LEVEL OF SERVICE C  
ADT PRESENT ( )  
ADT FUTURE (1995) 40,000 - 49,000  
DHV 4,000 - 4,900  
D % 50/50  
T % 5%

GEOGRAPHIC COORDINATES  
38°06'40" NORTH  
85°48'15" WEST

### DESIGNED

% RESTRICTED SD 0  
LEVEL OF SERVICE C  
MAX. DISTANCE W/O PASSING

### KENTUCKY DEPARTMENT OF HIGHWAYS JEFFERSON COUNTY

### JEFFERSON FREEWAY (KY 841)

PROJECT F3D 056 0841 000-016 S  
NUMBERS APC 841-1(32)  
LETTING DATE 10-19-84

DESIGNED BY Aug. 30 1984 by Charles E. Meyer  
APPROVED Aug 30 1984 by H. P. Hinton, Jr.  
DIRECTOR OF TRAFFIC

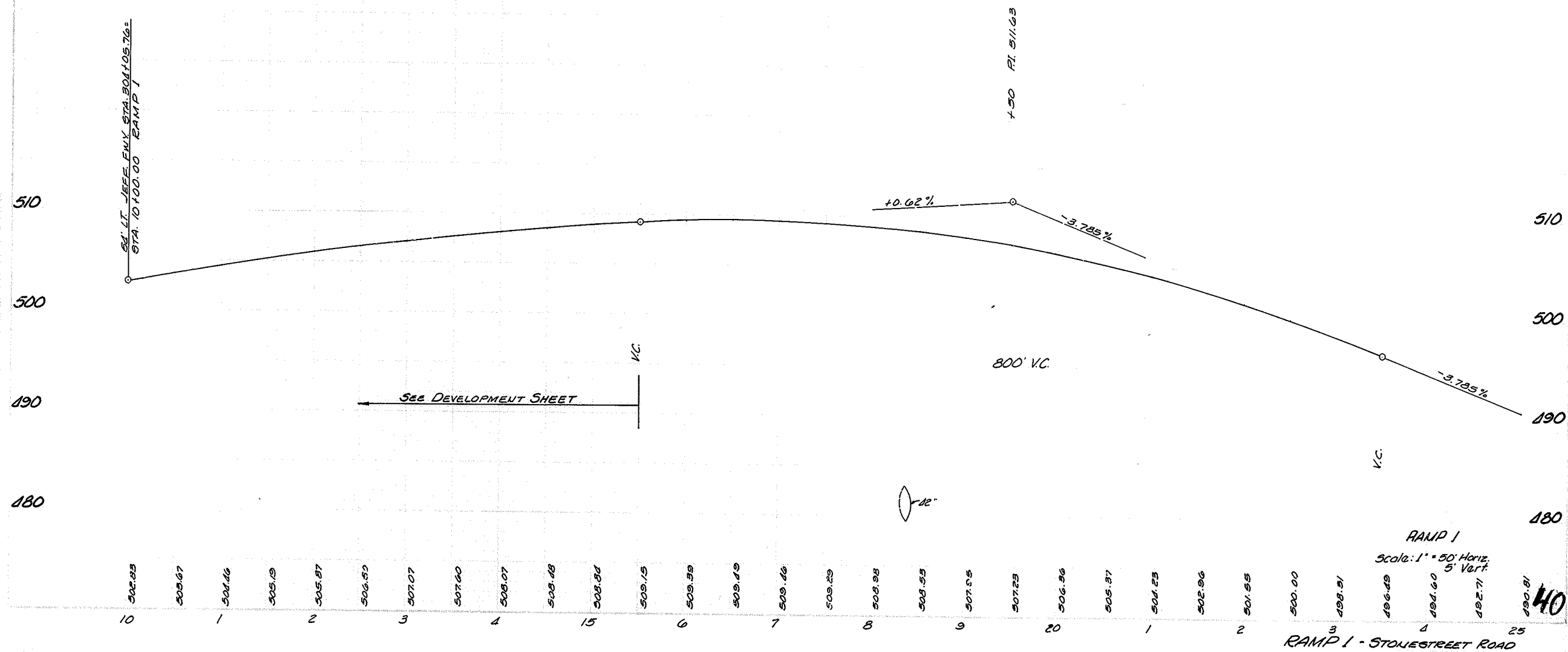
PLAN CHECKED 8/30/1984 by Glenn C. Dickerson  
PLAN APPROVED 8/30 1984 by Dennis S. Hays  
PLAN APPROVED 8/30 1984 by R. L. G. G. G.  
STATE HIGHWAY ENGINEER

U. S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

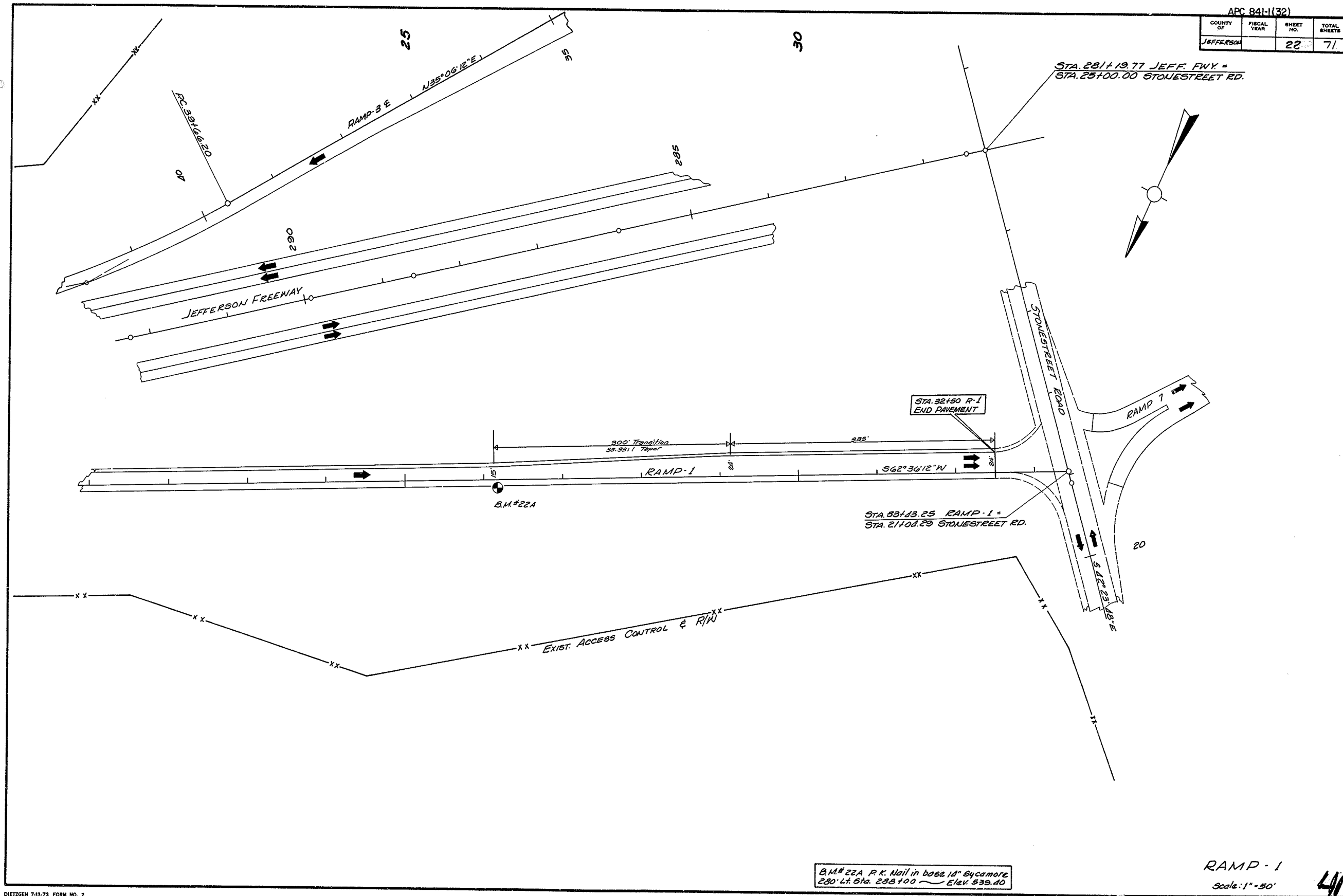
APPROVED 19  
DIVISION ADMINISTRATOR







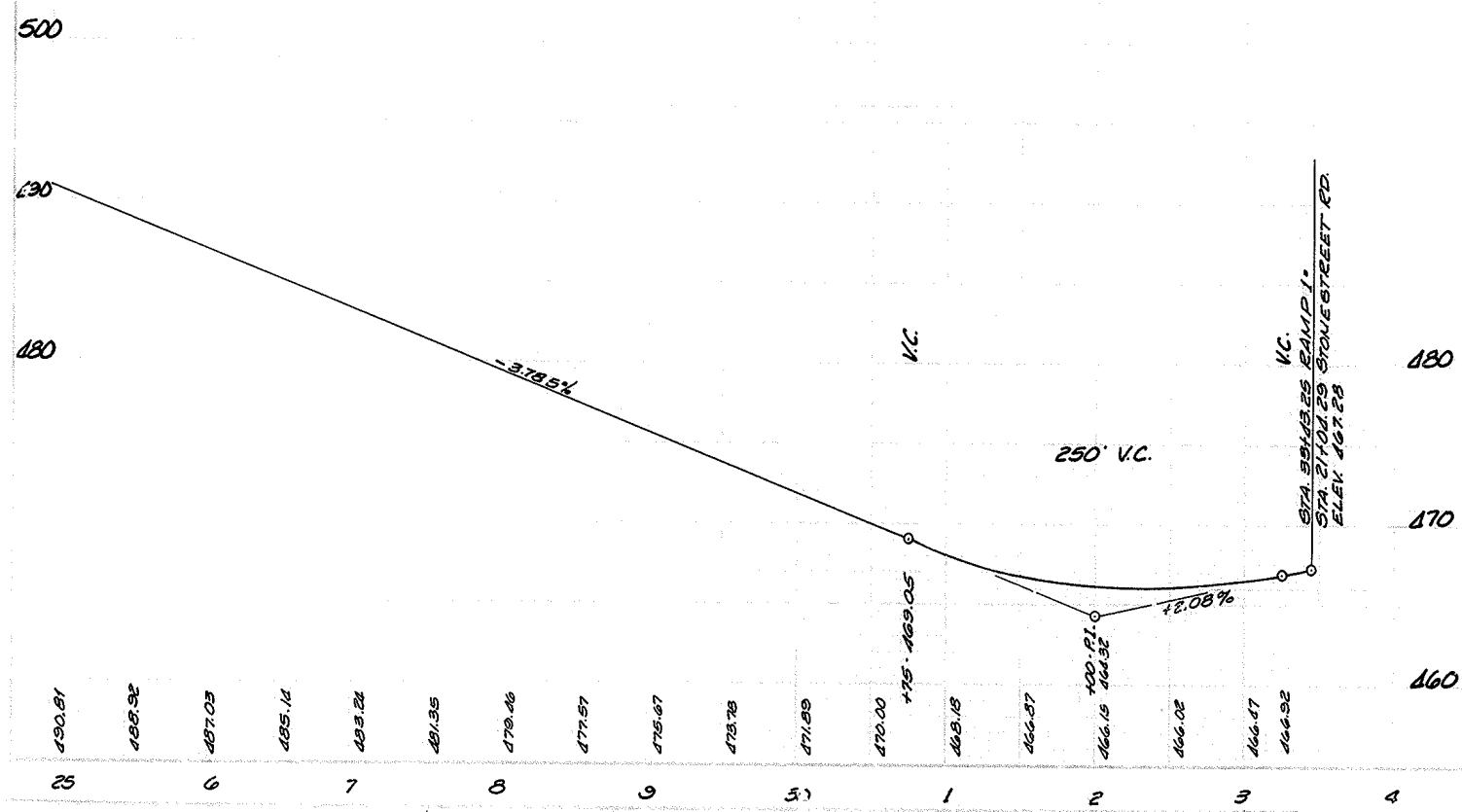
APC 841-1(32)			
COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
JEFFERSON		22	71



BM #22A P.K. Nail in base 14" Sycamore  
280' Lt Sta. 233+00 Elev. 539.10

RAMP 1 - STONESTREET RD

APC 841-1(32)			
DATE	PLAN	SHEET	OF
JEFFERSON		23	71



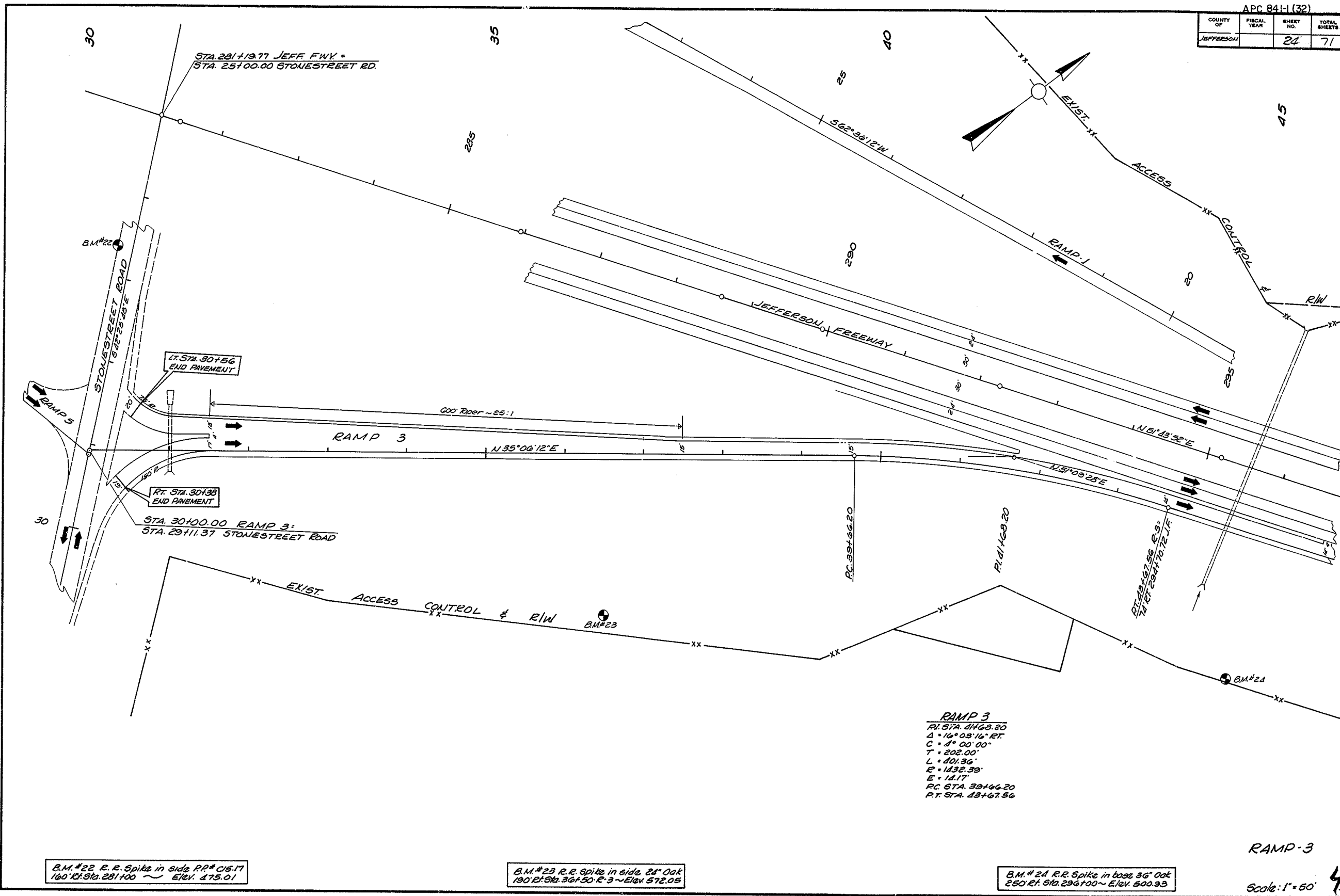
RAMP 1  
 SCALE: 1" = 50' HORIZ.  
 5' VERT.

RAMP 1 - STONESTREET ROAD

42



APC 84-1 (32)			
COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
JEFFERSON		24	71



**RAMP 3**  
 PI: STA. 44+88.20  
 $\Delta = 16^\circ 03' 16''$  RT  
 $C = 8^\circ 00' 00''$   
 $T = 202.00'$   
 $L = 101.36'$   
 $E = 1432.39'$   
 $E = 14.17'$   
 PC: STA. 39+66.20  
 PT: STA. 43+67.56

B.M. #22 R.R. Spike in side RR\* C15.17  
 160' E of Sta. 281+00 ~ Elev. 475.01

B.M. #23 R.R. Spike in side RR\* C15.17  
 190' E of Sta. 36+50 R-3 ~ Elev. 572.05

B.M. #24 R.R. Spike in base 36' Oak  
 250' E of Sta. 296+00 ~ Elev. 500.93

RAMP-3

Scale: 1" = 50'

RAMP 3 - STONESTREET ROAD

PROJECT	STATION
SUBJECT	DATE
DESIGNED BY	APPROVED BY
CHECKED BY	DATE

510

500  
STA 30+00.00 RAMP 3  
STA 29+11.37 STONESTREET RD

VC

-2.08%

300' V.C.

VC

+3.8157%

530

520

510

500

STA 43+67.55 RAMP 3  
STA 29+17.72 JEFFERSON HWY

170  
30

177.21  
1

176.42  
2

176.11  
3

176.08  
4

176.98  
5

178.16  
6

179.81  
7

181.72  
8

183.43  
9

185.59  
10

187.41  
11

189.55  
12

191.86  
13

193.16  
14

195.07  
15

196.98  
16

198.89  
17

500.20  
18

502.66  
19

504.32  
20

505.65  
21

506.82  
22

507.91  
23

508.62  
24

509.14  
25

509.52  
26

509.85  
27

510.14  
28

510.41  
29

510.62  
30

510.97  
31

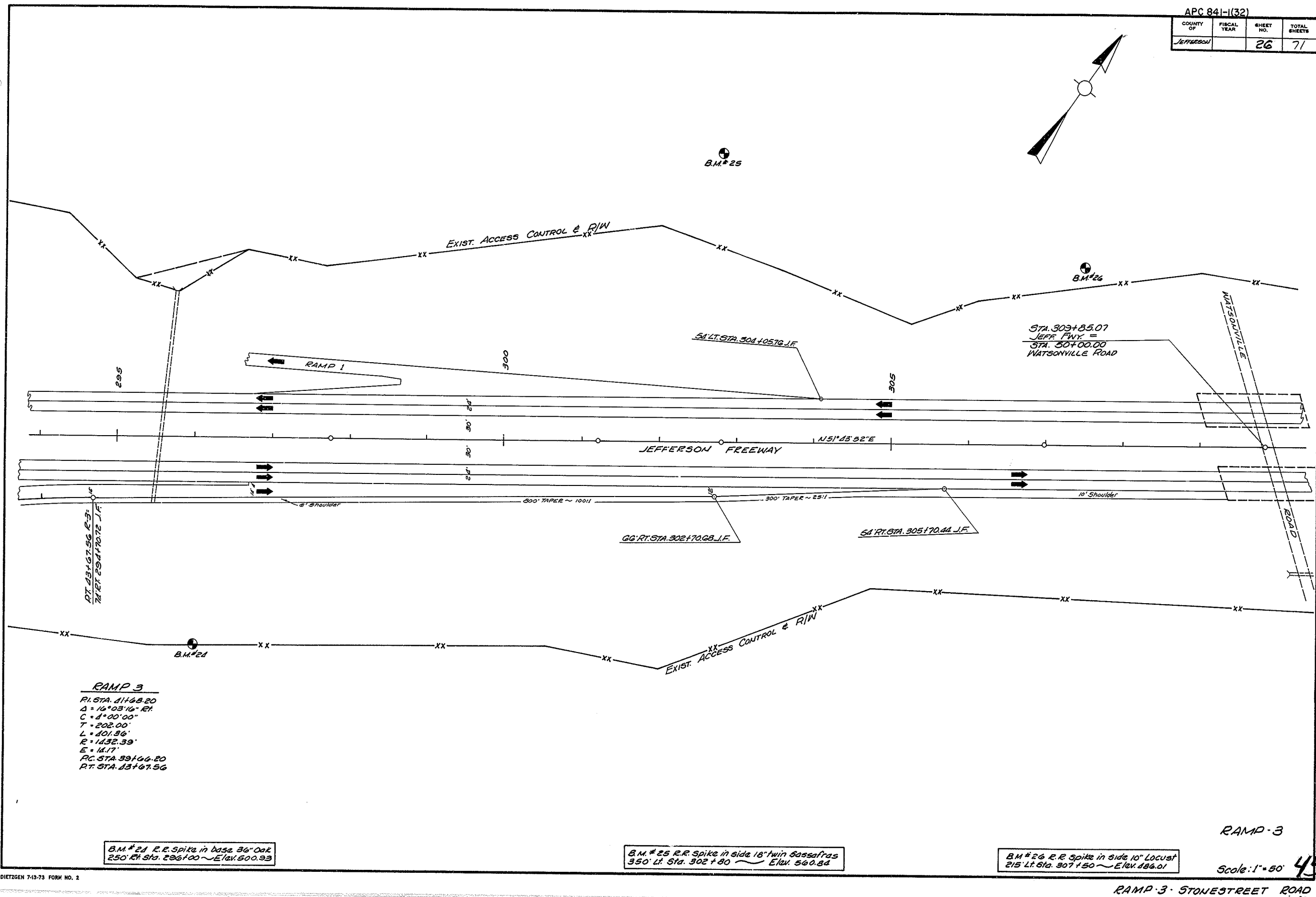
RAMP 3 - STONESTREET ROAD

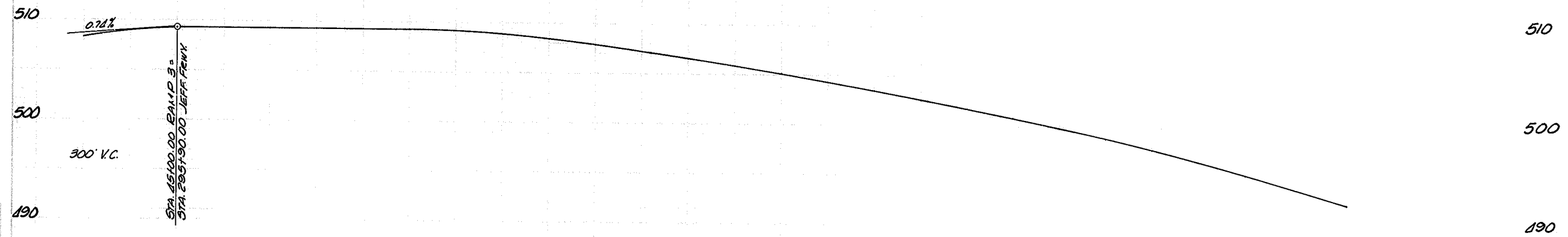
Scale: 1" = 50' Horiz  
1" = 5' Vert

44

APC 84-1-(32)

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
JEFFERSON		26	71





FOR ELEVATIONS SEE MAIN LINE CROSS SECTIONS

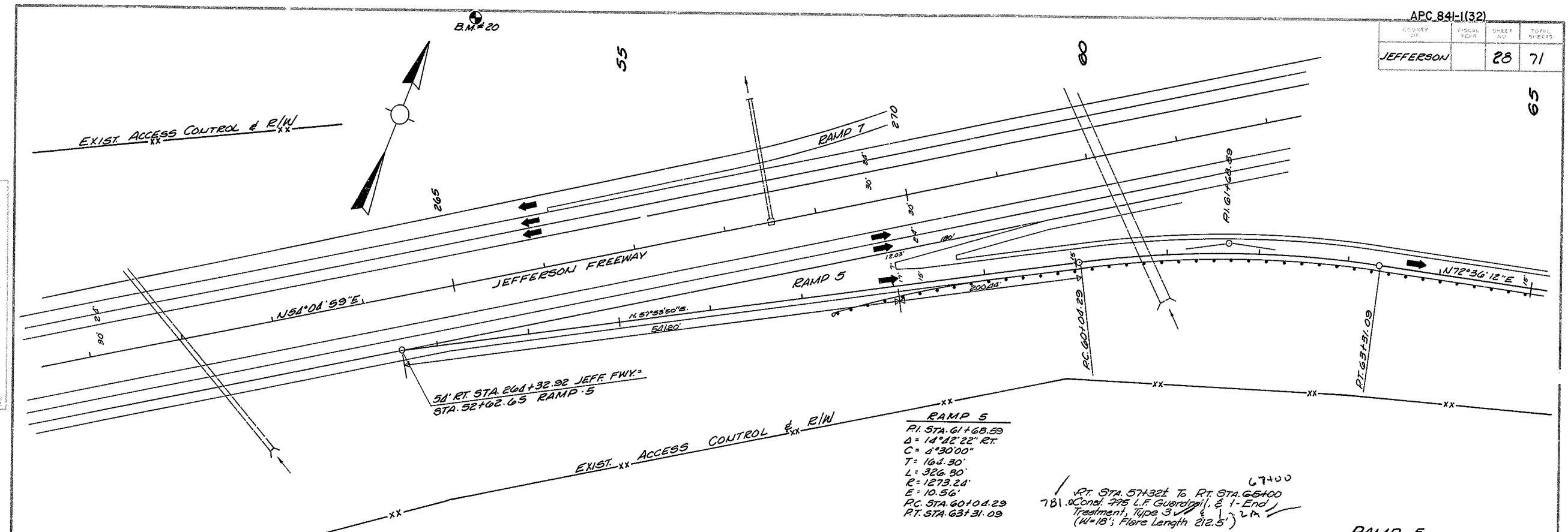
Scale: 1" = 50' Horiz.  
5" Vert.

RAMP 3 - STONESTREET ROAD

46



APC 841-1(32)			
COUNTY	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
JEFFERSON		28	71

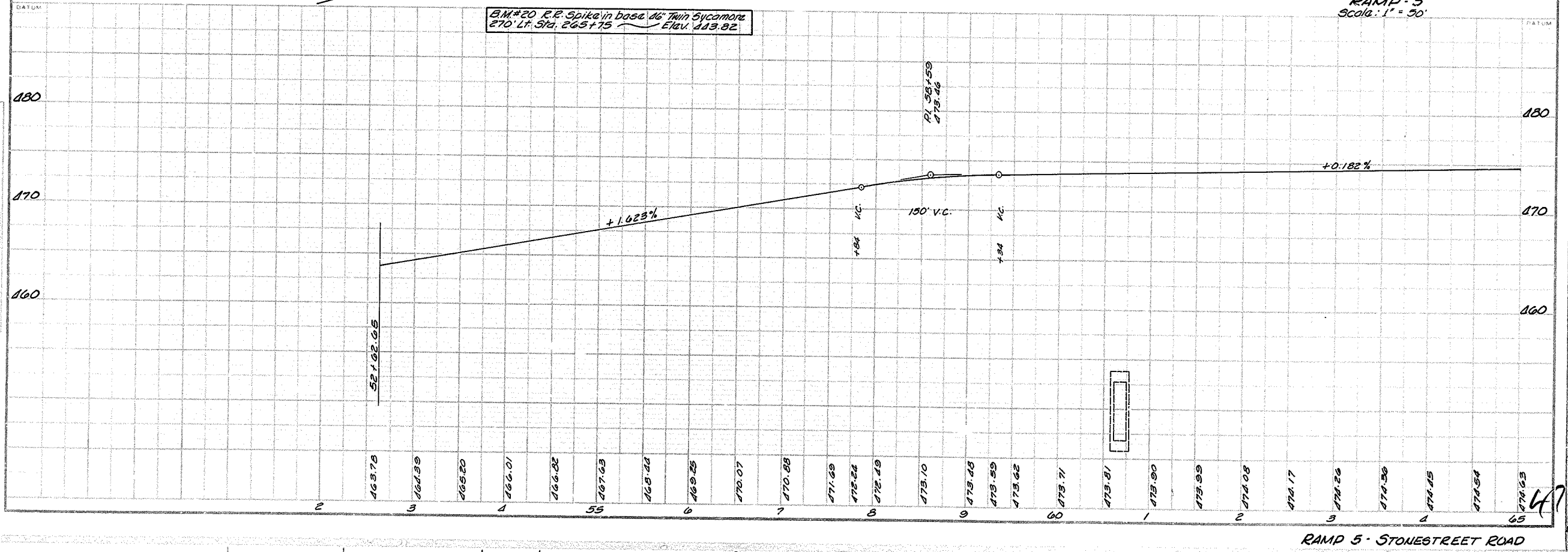


**RAMP 5**  
 PI STA. 61+68.89  
 $\Delta = 14^\circ 12' 22''$  RT  
 $C = 4^\circ 30' 00''$   
 $T = 164.30'$   
 $L = 326.90'$   
 $R = 1273.24'$   
 $E = 10.56'$   
 PC STA. 60+04.29  
 PT STA. 63+31.09

RT STA. 57+32.1 To RT STA. 65+00  
 781' Cond. 775 L.F. Guardrail, E 1-End  
 Treatment, Type 3  
 (W=18'; Flare Length 212.5')

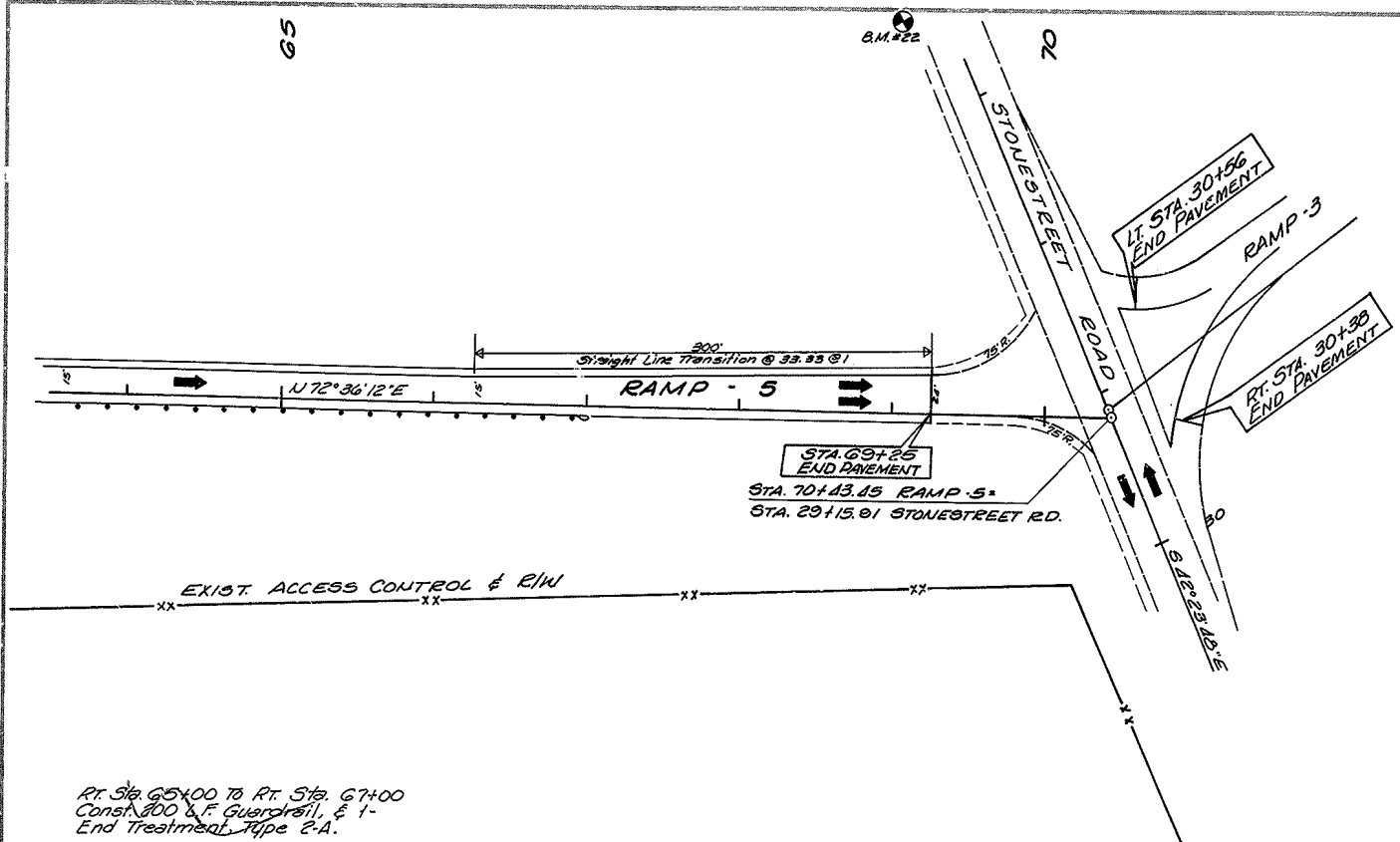
**RAMP 5**  
 Scale: 1" = 50'

B.M.#20 R.R. Spike in base of Twin Sycamores  
 270' Lt. Sta. 265+75 Elev. 113.82

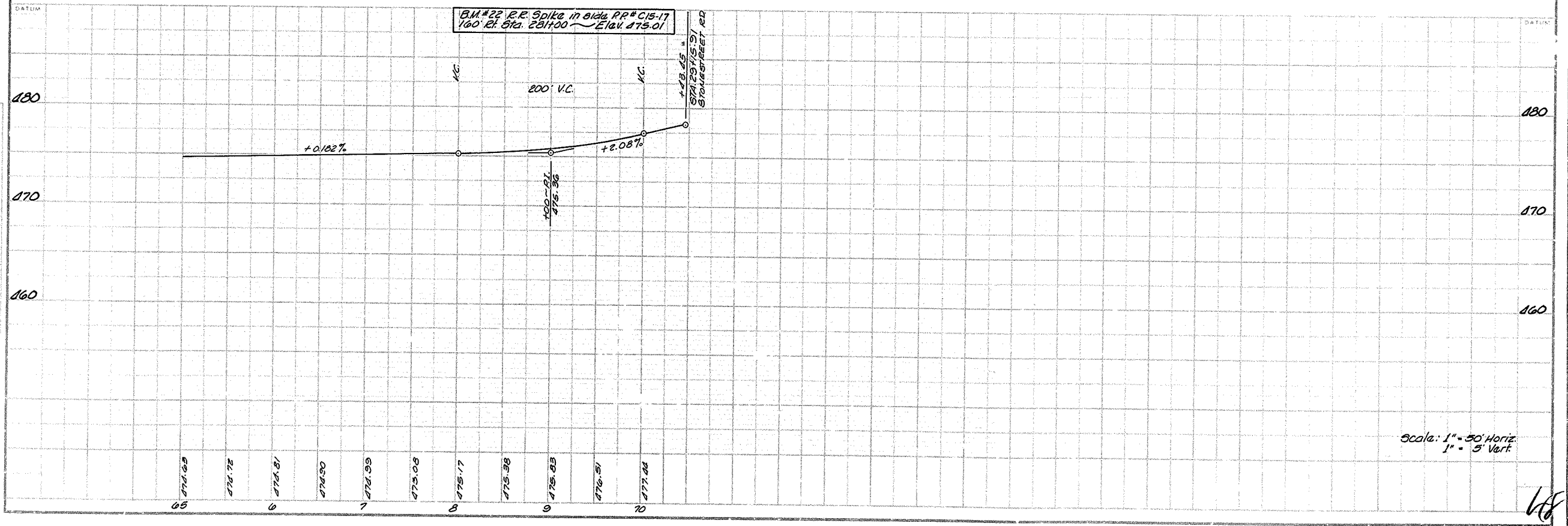


APC 84-1(32)			
COUNTY	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
JEFFERSON		29	71

PLAN  
 DATE: 10/1/83  
 DRAWN BY: J. H. HARRIS  
 CHECKED BY: J. H. HARRIS  
 IN CHARGE: J. H. HARRIS  
 PROJECT: RAMP 5 - STONE STREET ROAD



PROFILE  
 DATE: 10/1/83  
 DRAWN BY: J. H. HARRIS  
 CHECKED BY: J. H. HARRIS  
 IN CHARGE: J. H. HARRIS  
 PROJECT: RAMP 5 - STONE STREET ROAD

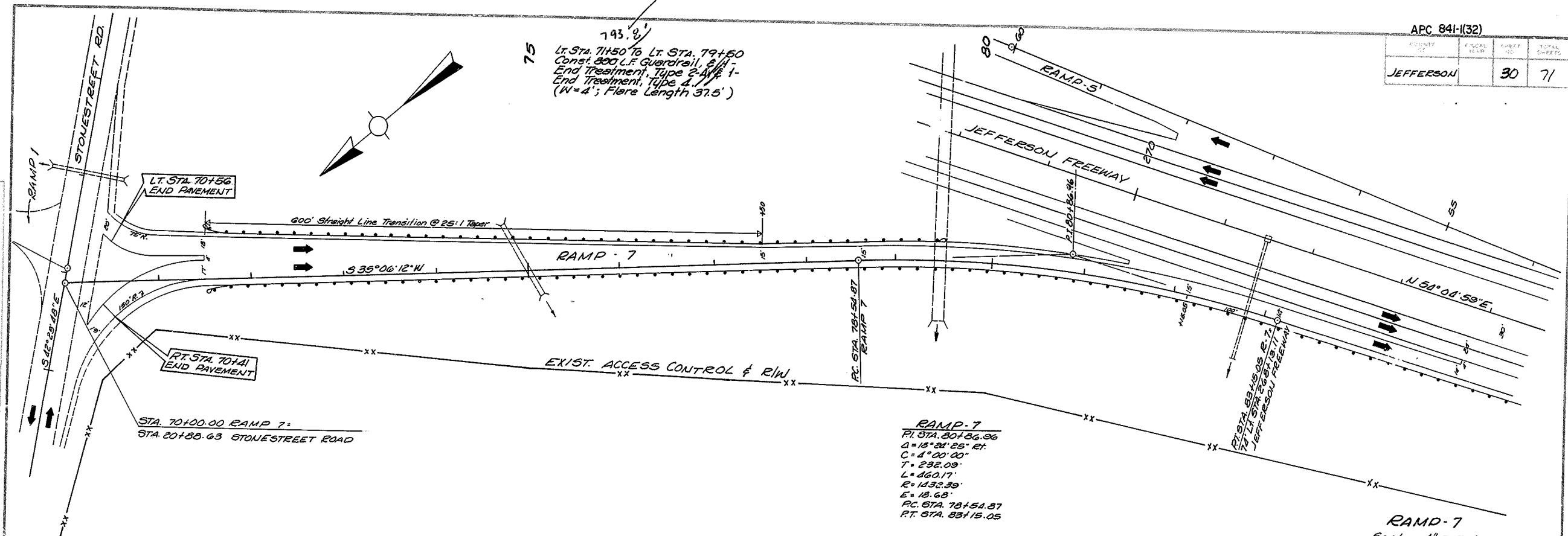


RAMP 5 - STONE STREET ROAD

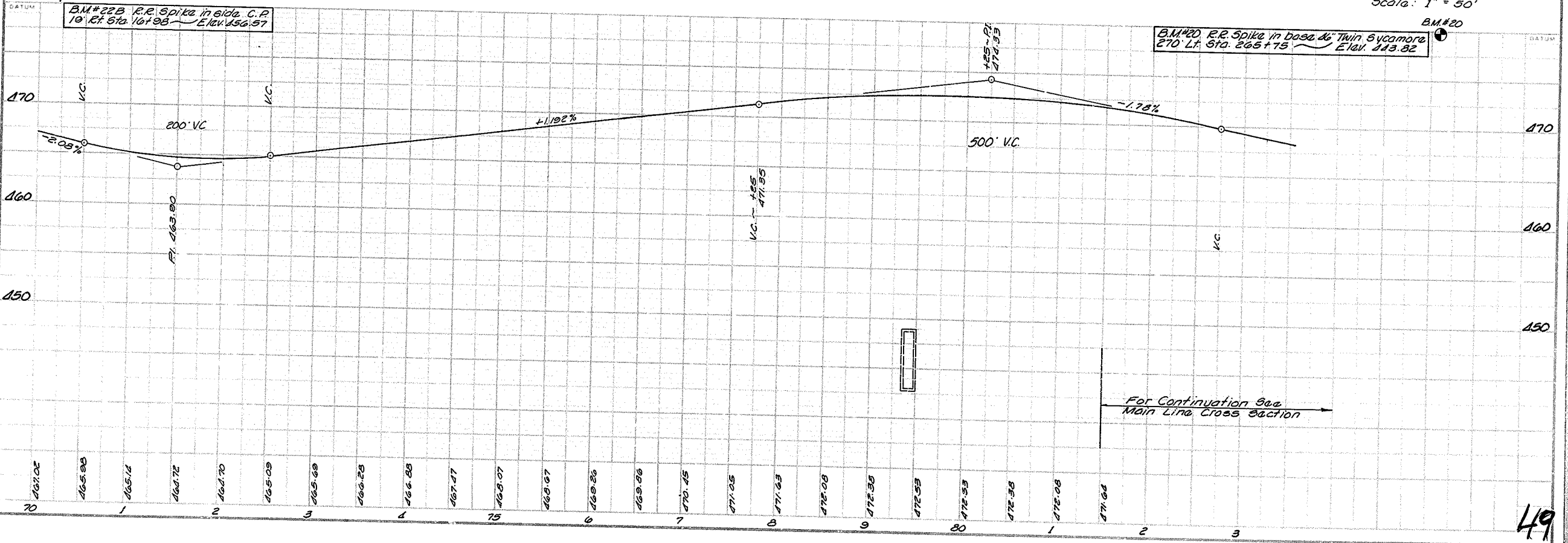
APC 841-1(32)

SHEET NO.	TOTAL SHEETS
30	71

PLAN  
 1" = 50'  
 NOTE: ELEV. OF R/W CROWN



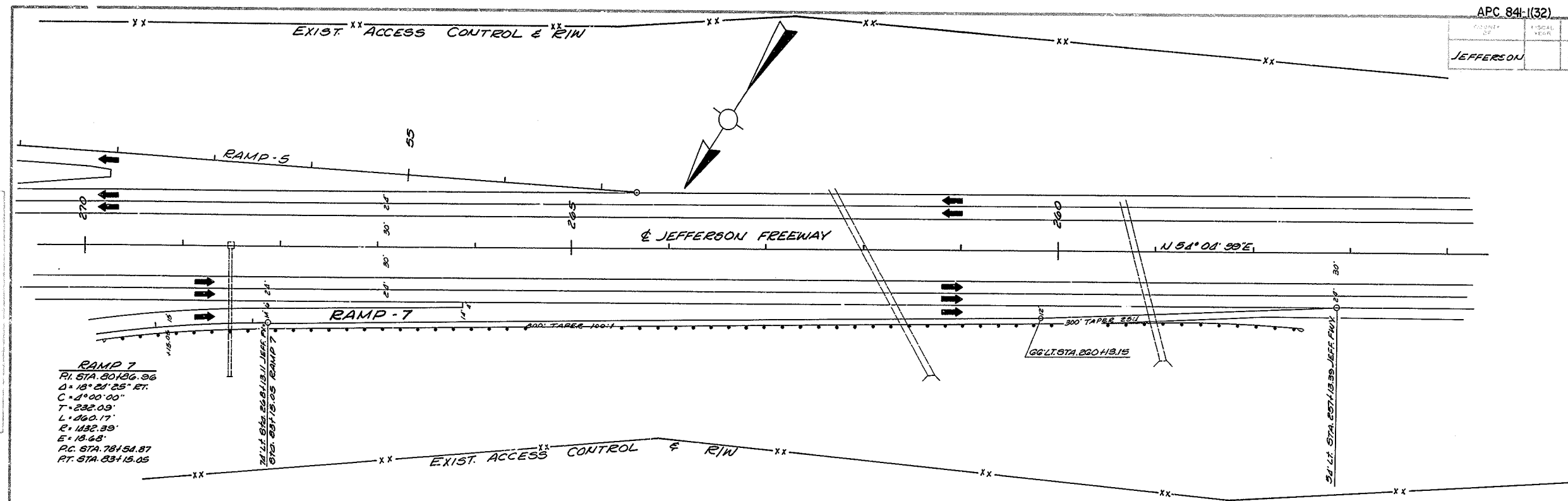
PROFILE  
 1" = 50'  
 NOTE: ELEV. OF R/W CROWN



RAMP 7 - STONESTREET ROAD

49

COMPANY	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
JEFFERSON		31	71



**RAMP 7**  
 RL STA 80+106.96  
 Δ = 18° 21' 25" RT.  
 C = 1° 00' 00"  
 T = 232.03'  
 L = 100.17'  
 E = 113.39'  
 E = 113.48'  
 PC STA 78+54.87  
 PT STA 83+15.05

RL STA 80+106.96  
 STA 80+106.96 RAMP 7

GG LT STA 220+13.15

34' LT STA 257+13.59 JEFF FREEWAY

BM #20

B.M. # 20 R.R. Spike in base of twin Gycamaraz  
 270' LT STA 265+75 ELEV 113.32

**RAMP 7**  
 Scale: 1" = 50'

B.M. # 19 R.R. Spike in base of 20' Oak  
 200' LT STA 254+00 ELEV 116.86

For Proposed Grade,  
 See Development Sheet

50

RAMP 7 - STONESTREET ROAD



DATE	
NO. SETS	
RECORD PLANS	
CONSTRUCTION PLANS	

REVIEWED BY	
DIVISION OF CONSTRUCTION	

PREPARED BY	DATE	DATE	DATE
CHECKED BY			
APPROVED BY			

PCN 224

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
R1	LAYOUT SHEET
R2-R2f	TYPICAL SECTIONS - SUMMARY SHEETS
R3-R16	PLAN & PROFILE SHEETS
R17	RIGHT OF WAY SUMMARY SHEET
R18-20	RIGHT OF WAY STRIP MAP SHEETS
R21-R22	REFERENCE SHEETS
R23-R23d	DETAIL SHEETS
R24-R33	PIPE DRAINAGE SHEETS
U1-U4	UTILITY SHEETS
X1-X26	CROSS SECTION SHEETS

TOTAL SHEETS	
(R) ROADWAY	33
(S) STRUCTURE	24
(T) TRAFFIC	0
(U) UTILITY	4
(X) CROSS SECTION	26

SHEETS NOT INCLUDED IN TOTAL SHEETS

R2a - R2f, R23a - R23d

STANDARD DRAWINGS		
NUMBER		
RBB-001-07	RDB-272-06	RGX-001-04
RBC-001-08	RDB-273-05	RGX-002-08
RBC-002	RDB-400-04	RGX-005-04
RBC-003-06	RDB-410-05	RGX-010-03
RBI-001-09	RDB-420-04	RGX-030-06
RBI-002-06	RDB-430-04	RGX-100-04
RBI-004-02	RDB-040-04	RGX-105-05
RBR-001-11	RDB-020-03	RGX-200
RBR-005-10	RDI-001-07	RPM-100-09
RBR-010-05	RDI-011-01	RPM-110-04
RBR-015-04	RDI-016-01	RPM-150-05
RBR-016-04	RDI-020-08	RPM-152-05
RBR-020-02	RDI-025-04	RPM-160-02
RBR-035-07	RDI-035-01	RPM-170-05
RDB-011-07	RDM-100-02	RPM-172-05
RDB-020-04	RDX-001-05	TTC-100
RDB-150-01	RDX-002-03	TTC-105
RDB-160-01	RDX-205	TTD-100
RDB-270-07	RDX-210-02	TTD-105
RDB-271-04	RGS-001-06	TTD-110

TOTAL STANDARD DRAWINGS 60

DESIGN CRITERIA	
CLASS OF HIGHWAY	URBAN COLLECTOR
TYPE OF TERRAIN	ROLLING
DESIGN SPEED	35 Mph
REQUIRED NPSD	225 FT
REQUIRED PSD	N/A
LEVEL OF SERVICE	
ADT PRESENT ( 1996 )	15,900
ADT FUTURE ( 2016 )	23,000
DHV	2,300
D %	3%
T %	4%

GEOGRAPHIC COORDINATES	
LATITUDE	38 DEGREES 06 MINUTES NORTH
LONGITUDE	85 DEGREES 50 MINUTES WEST

DESIGNED	
% RESTRICTED SD	
LEVEL OF SERVICE	
MAX. DISTANCE W/O PASSING	

STONESTREET ROAD		
GROSS LENGTH	3339.00 LIN. FT.	0.632 MILES
ADDED		
DEDUCTED	FOR EQUALITIES	0 LIN. FT.
NET LENGTH	3168.70 LIN. FT.	0.600 MILES
NOT INCLUDED		
RAILROAD CROSSINGS NO.	8.8	LIN. FT.
BRIDGES	187.50	LIN. FT.

GROSS LENGTH	LIN. FT.	MILES
ADDED		
DEDUCTED	FOR EQUALITIES	LIN. FT.
NET LENGTH	LIN. FT.	MILES
NOT INCLUDED		
RAILROAD CROSSINGS NO.	LIN. FT.	
BRIDGES	LIN. FT.	

GROSS LENGTH	LIN. FT.	MILES
ADDED		
DEDUCTED	FOR EQUALITIES	LIN. FT.
NET LENGTH	LIN. FT.	MILES
NOT INCLUDED		
RAILROAD CROSSINGS NO.	LIN. FT.	
BRIDGES	LIN. FT.	

GROSS LENGTH	LIN. FT.	MILES
ADDED		
DEDUCTED	FOR EQUALITIES	LIN. FT.
NET LENGTH	LIN. FT.	MILES
NOT INCLUDED		
RAILROAD CROSSINGS NO.	LIN. FT.	
BRIDGES	LIN. FT.	

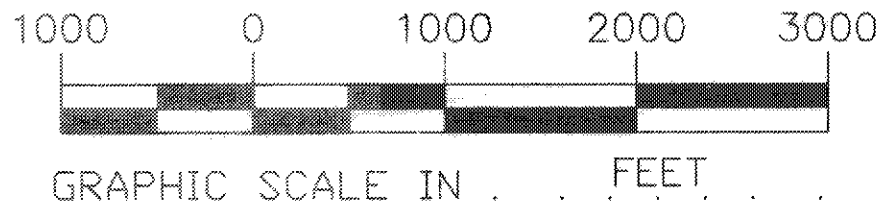
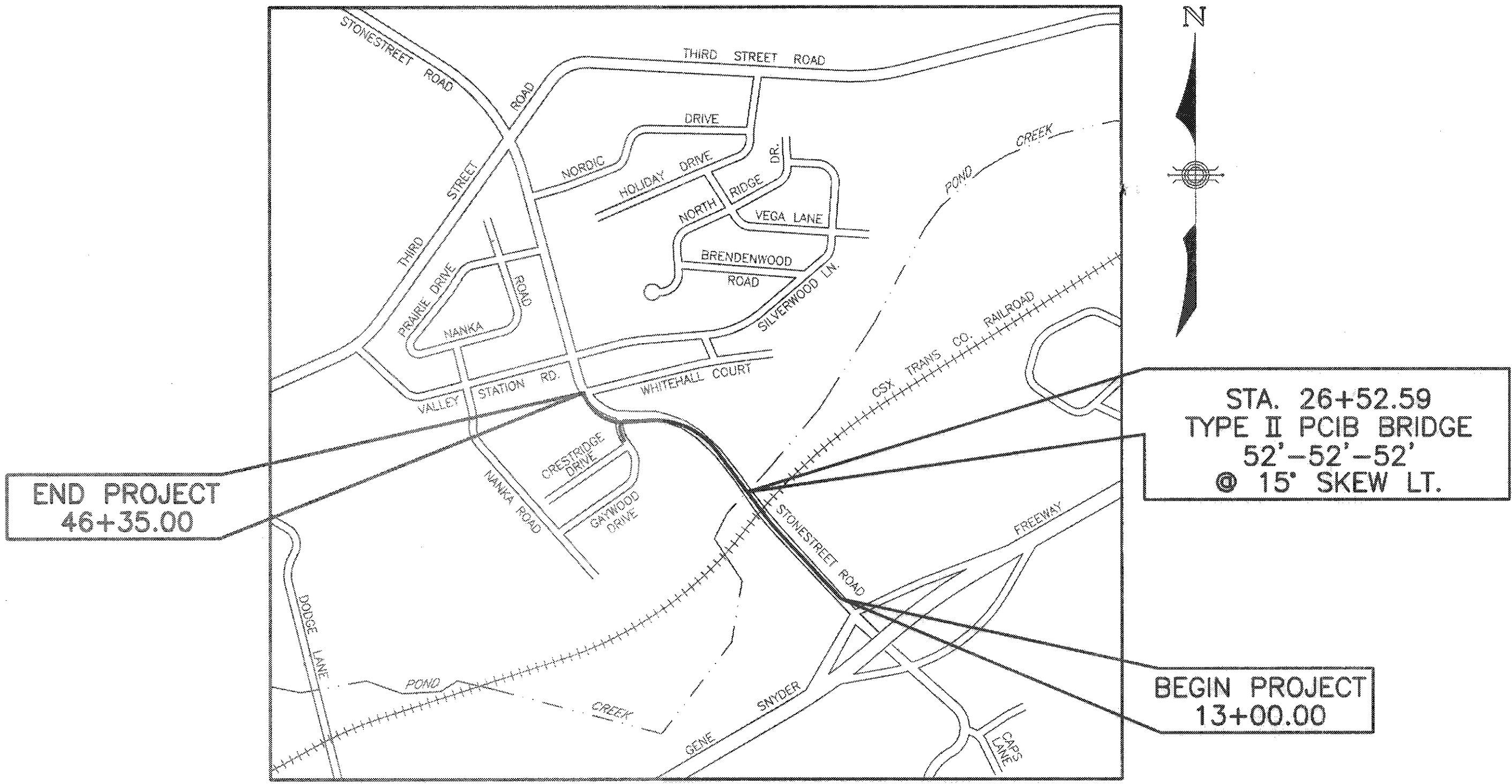
COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS

PLANS OF  
PROPOSED PROJECT

**JEFFERSON COUNTY**

STONESTREET ROAD - SECTION II

STPM 08785 011



LAYOUT MAP

THESE PLANS ARE FOR GRADE,  
DRAIN & SURFACING

THE CONTROL OF ACCESS ON THIS  
PROJECT SHALL BE BY PERMIT

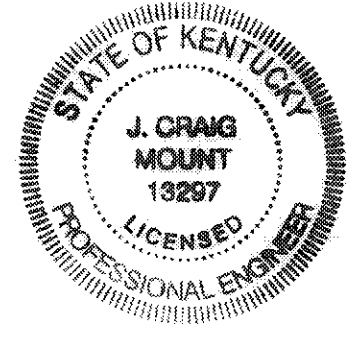
AS BUILT PLANS

*Lupe Smith*  
Director - Division of Construction

Date: *5/19/07*

KENTUCKY DEPARTMENT OF HIGHWAYS COUNTY OF JEFFERSON	
STONESTREET ROAD - SECTION II	
ITEM NO.	5-387.20
PROJECT:	
NUMBER:	STPM 08785 011
LETTING DATE:	<i>4-25-03</i>
SUBMITTED BY:	<i>Christy W. Phillips</i> <i>2-14-03</i>
RECOMMENDED BY:	<i>Robert T. Jones</i> <i>2/18/03</i>
PLAN APPROVED BY:	<i>J. W. Howell</i> <i>3/13/03</i>

PLANS PREPARED BY:  
BIRCH, TRAUTWEIN & MIMS, INC.  
CONSULTING ENGINEERS  
3001 TAYLOR SPRINGS DRIVE  
LOUISVILLE, KENTUCKY 40220



*J. Craig Mount* *2-11-03*  
DESIGN ENGINEER DATE



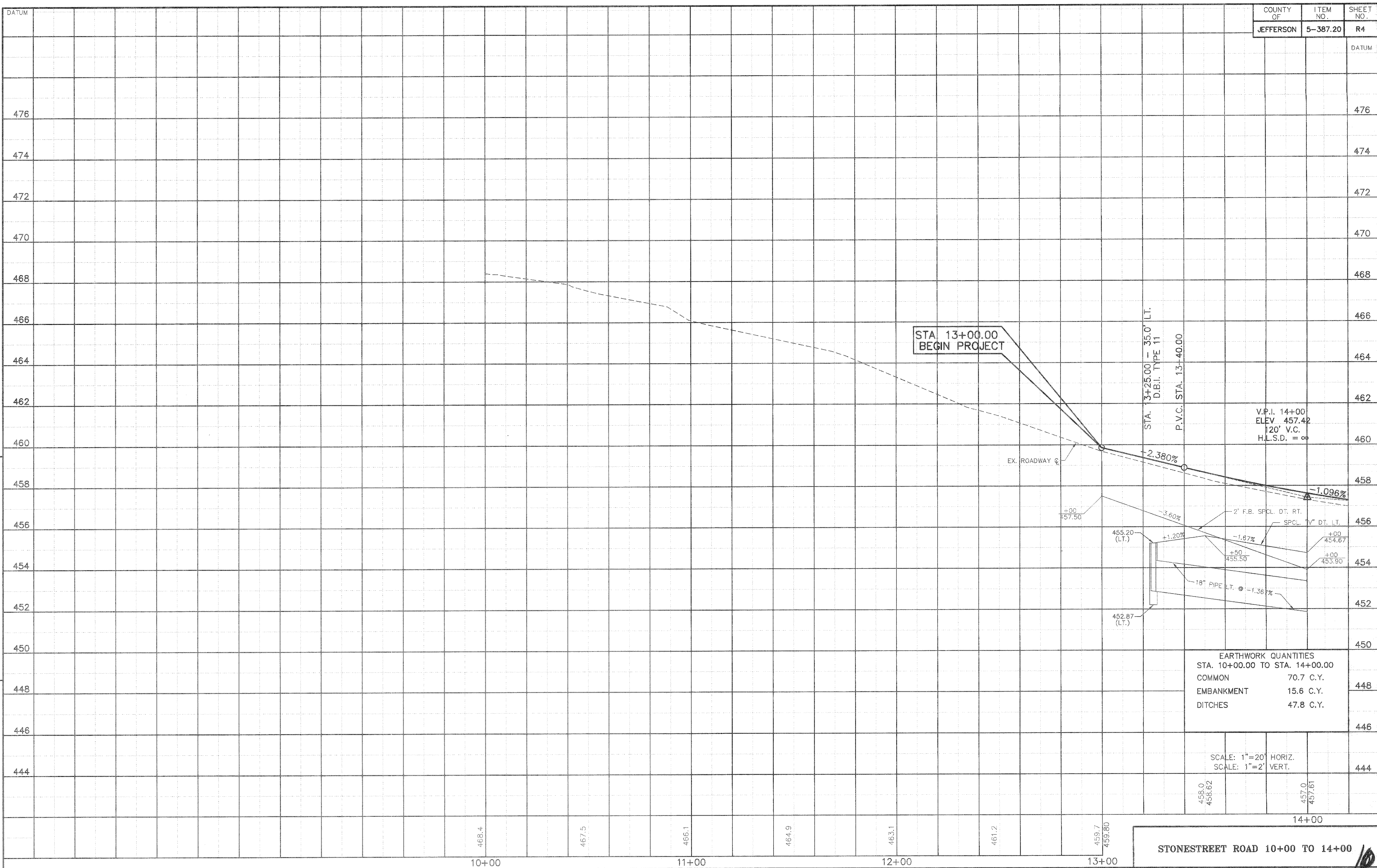


F:\98198000\PROFILES\Profile.dwg Wed Feb 12 15:56:21 2003 SB

VENDORS NAME  
1-92  
FORM NO. 4C

Cell Library: roadway cel  
Cell Name: sp1  
DD-MMM-YYYY HHMM

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_









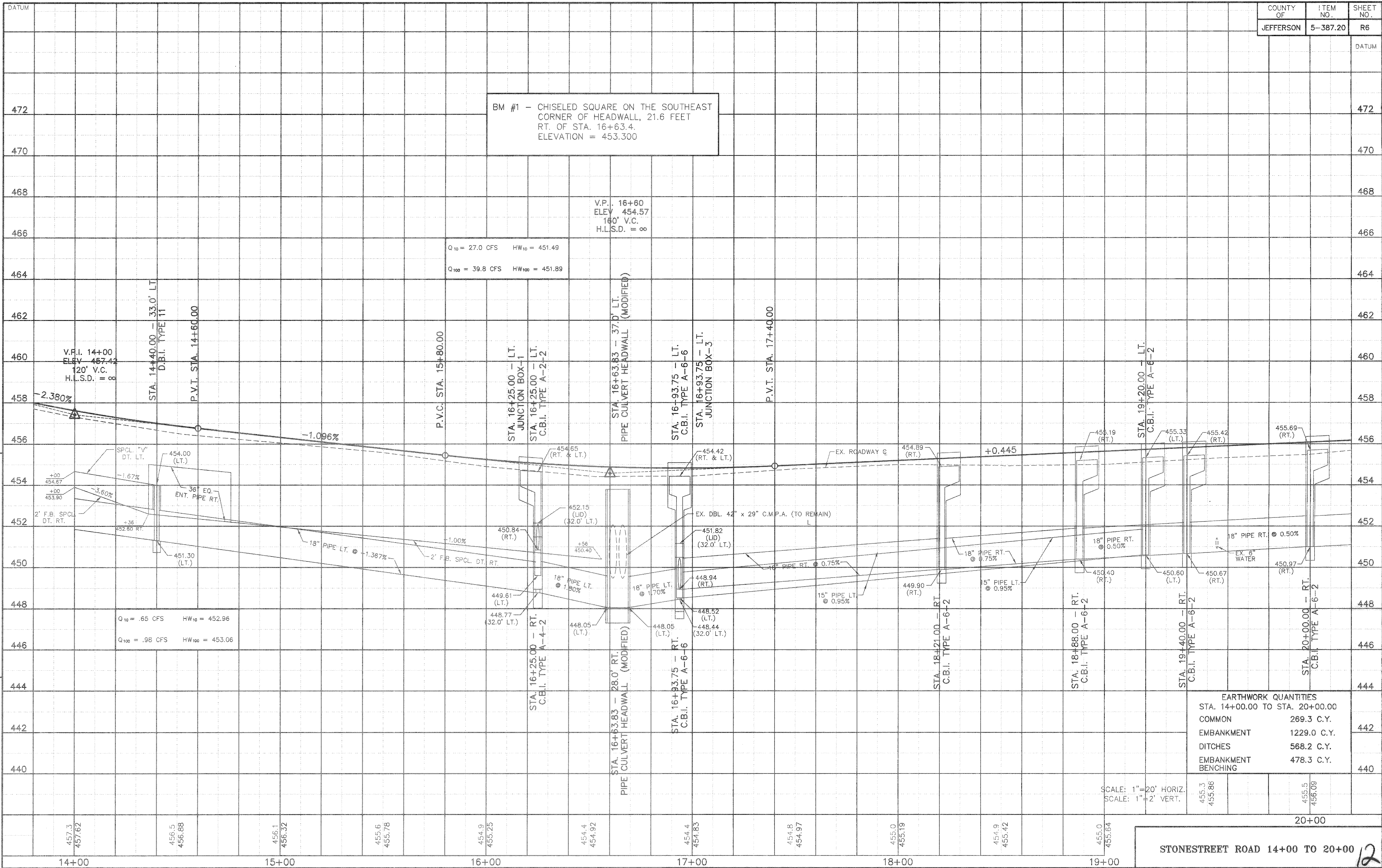
F:\98190009\PROFILES.DWG Mod Feb 12 15:55:44 2003 58

VENDERS NAME  
1-22  
FORM NO. 4B

Cell Library: roadway cel  
Cell Name: spf

PREPARED BY  
CHECKED BY  
APPROVED BY

DATE  
DATE



COUNTY OF	ITEM NO.	SHEET NO.
JEFFERSON	5-387.20	R6

DATUM

472

470

468

466

464

462

460

458

456

454

452

450

448

446

444

442

440

20+00

STONESTREET ROAD 14+00 TO 20+00

12



20+00

21+00

22+00

23+00

24+00

25+00

26+00

LT. STA. 20+06 TO STA. 24+00  
CONSTRUCT 346 L.F. STD. CURB & GUTTER

LT. STA. 20+00 TO STA. 25+56  
CONSTRUCT 204 S.Y. 4" CONC. SIDEWALK  
(TRANSITION TO MEET BRIDGE SIDEWALK)

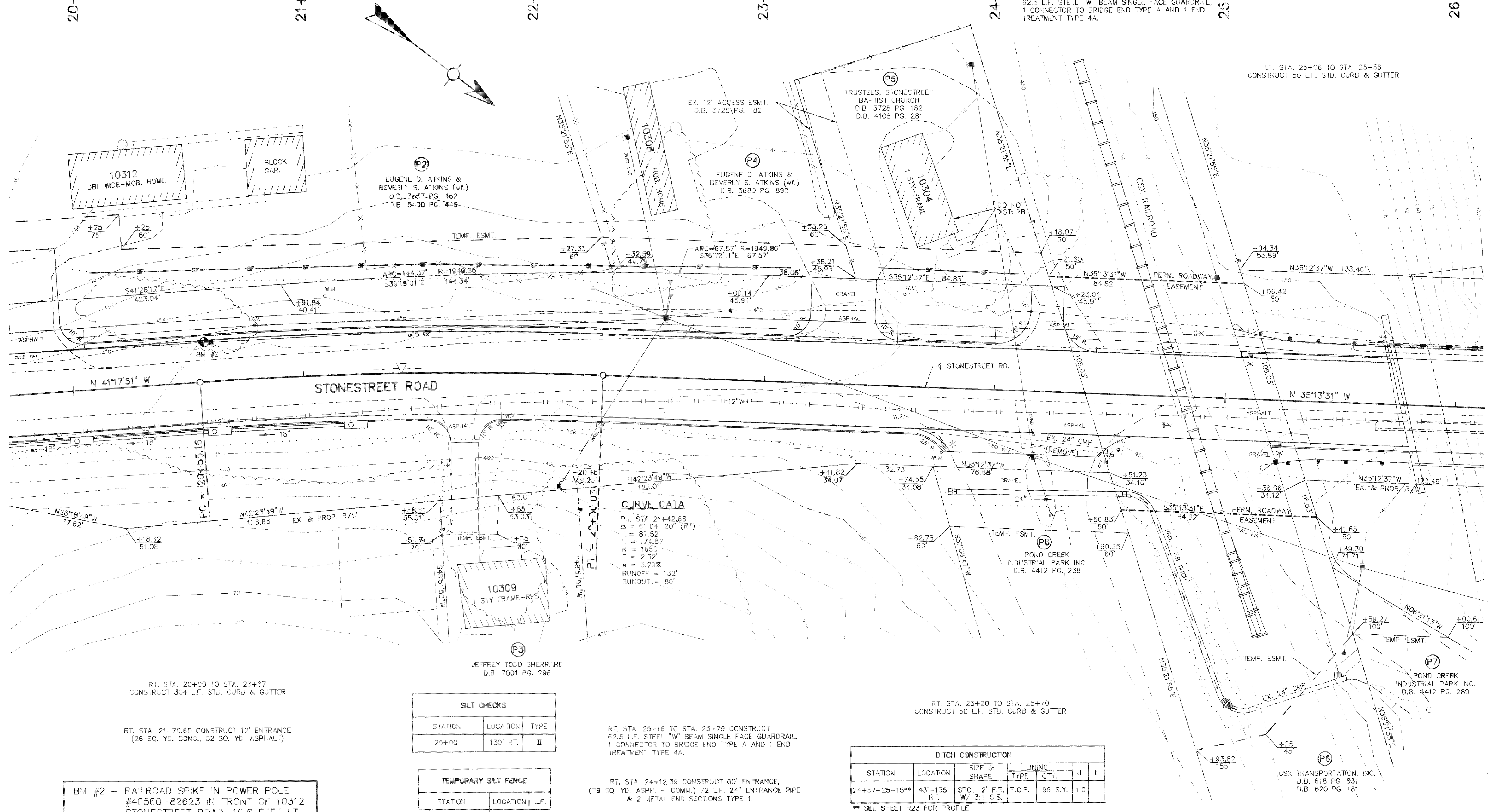
LT. STA. 23+33.02 CONSTRUCT 28' ENTRANCE  
(48 SQ. YD. CONC., 59 YD. ASPHALT)

LT. STA. 24+21.54 CONSTRUCT 14' ENTRANCE  
(45 SQ. YD. CONC., 31 SQ. YD. ASPHALT)

LT. STA. 25+02 TO STA. 25+65 CONSTRUCT  
62.5 L.F. STEEL "W" BEAM SINGLE FACE GUARDRAIL,  
1 CONNECTOR TO BRIDGE END TYPE A AND 1 END  
TREATMENT TYPE 4A.

LT. STA. 25+06 TO STA. 25+56  
CONSTRUCT 50 L.F. STD. CURB & GUTTER

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_



**CURVE DATA**  
P.I. STA 21+42.68  
 $\Delta = 6^\circ 04' 20''$  (RT)  
 $T = 87.52'$   
 $L = 174.87'$   
 $E = 1650'$   
 $e = 2.32\%$   
 $R = 3.29\%$   
RUNOFF = 132'  
RUNOUT = 80'

RT. STA. 20+00 TO STA. 23+67  
CONSTRUCT 304 L.F. STD. CURB & GUTTER

RT. STA. 21+70.60 CONSTRUCT 12' ENTRANCE  
(26 SQ. YD. CONC., 52 SQ. YD. ASPHALT)

BM #2 - RAILROAD SPIKE IN POWER POLE  
#40560-82623 IN FRONT OF 10312  
STONESTREET ROAD, 16.6 FEET LT.  
OF STA. 20+65.3.  
ELEVATION = 457.243

SILT CHECKS		
STATION	LOCATION	TYPE
25+00	130' RT.	II

TEMPORARY SILT FENCE		
STATION	LOCATION	L.F.
20+10-23+10	LT.	300
23+50-24+05	LT.	55

RT. STA. 25+16 TO STA. 25+79 CONSTRUCT  
62.5 L.F. STEEL "W" BEAM SINGLE FACE GUARDRAIL,  
1 CONNECTOR TO BRIDGE END TYPE A AND 1 END  
TREATMENT TYPE 4A.

RT. STA. 24+12.39 CONSTRUCT 60' ENTRANCE,  
(79 SQ. YD. ASPH. - COMM.) 72 L.F. 24" ENTRANCE PIPE  
& 2 METAL END SECTIONS TYPE 1.

RT. STA. 25+20 TO STA. 25+70  
CONSTRUCT 50 L.F. STD. CURB & GUTTER

DITCH CONSTRUCTION						
STATION	LOCATION	SIZE & SHAPE	LINING		d	t
			TYPE	QTY.		
24+57-25+15**	43'-135' RT.	SPCL. 2' F.B. W/ 3:1 S.S.	E.C.B.	96 S.Y.	1.0	-

\*\* SEE SHEET R23 FOR PROFILE

\* TRANSITION CURB HEIGHT FROM 6" TO 0" IN 5 FEET.

STONESTREET ROAD 20+00 TO 26+00

SCALE: 1"=20'



BM #2 - RAILROAD SPIKE IN POWER POLE  
#40560-82623 IN FRONT OF 10312  
STONESTREET ROAD, 16.6 FEET LT.  
OF STA. 20+65.3.  
ELEVATION = 457.243

V.P.I. 22+10  
ELEV. 457.02  
260' V.C.  
N.P.S.D. = 772'

P.V.T. STA. 23+40.00

TOP OF RAIL +78.99 EL. 455.36

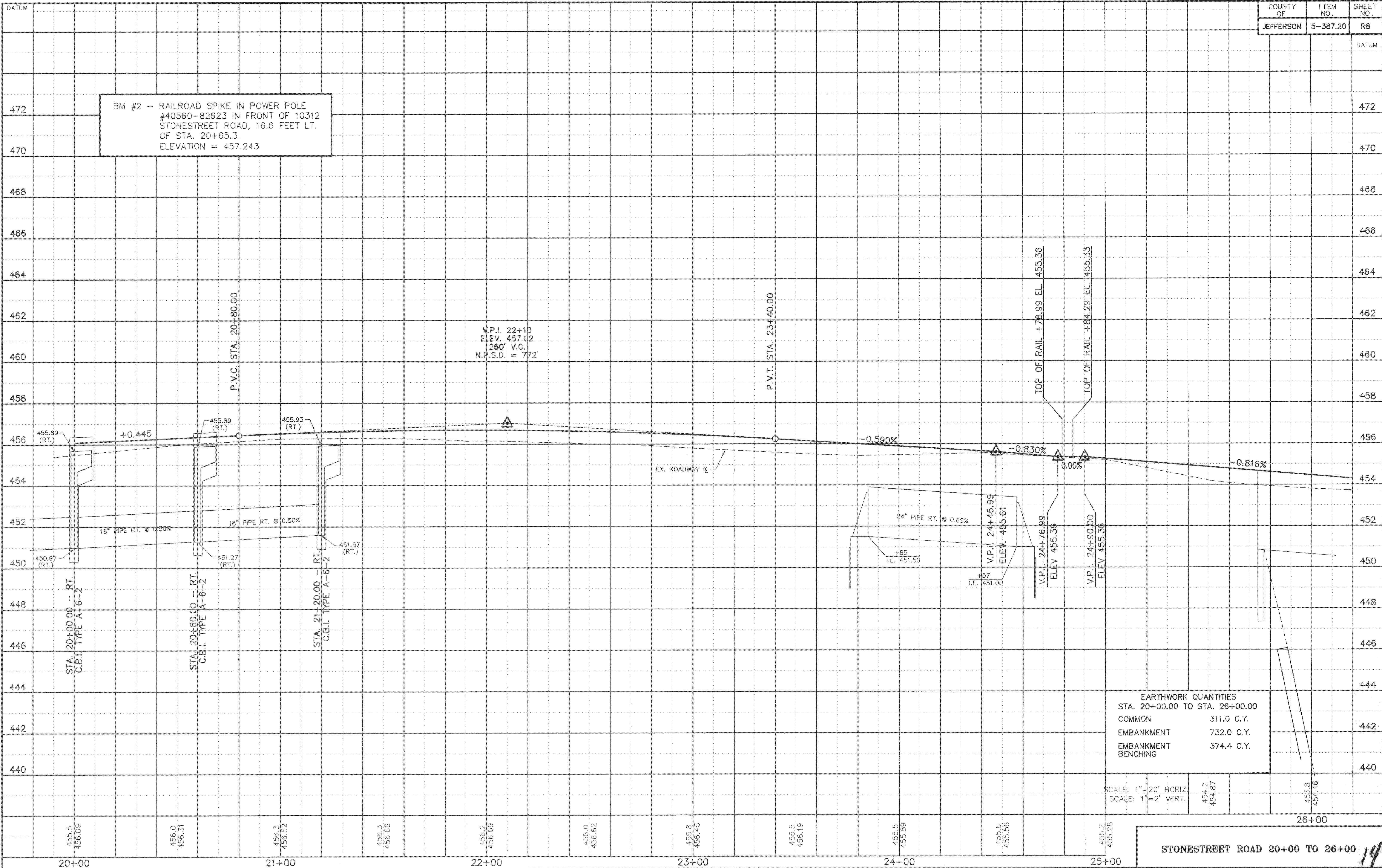
TOP OF RAIL +84.29 EL. 455.33

EARTHWORK QUANTITIES	
STA. 20+00.00 TO STA. 26+00.00	
COMMON	311.0 C.Y.
EMBANKMENT	732.0 C.Y.
EMBANKMENT BENCHING	374.4 C.Y.

SCALE: 1"=20' HORIZ.  
SCALE: 1"=2' VERT.

STONESTREET ROAD 20+00 TO 26+00

14



## Appendix L – Utility Contacts for Jefferson County



7/14/2011

## **Utility Owners and Contact Person**

For  
Jefferson County

1. LG&E KU (Electric)  
820 West Broadway  
Louisville, KY 40202  
Greg Geiser  
work: (502) 627-3708  
[Greg.Geiser@lge-ku.com](mailto:Greg.Geiser@lge-ku.com)

LG&E Emergency Number (502) 589-1444  
KU Emergency Number 1-800-331-7370

2. LG&E (Gas)  
820 West Broadway  
Louisville, KY 40202  
Emergency Number (502) 589-5511  
Greg Geiser  
work: (502) 627-3708  
[Greg.Geiser@lge-ku.com](mailto:Greg.Geiser@lge-ku.com)

3. Louisville Water Company  
550 South Third Street  
Louisville, KY 40202  
Daniel Tegene, PE  
(502) 569-3649  
[dtegene@lwcky.com](mailto:dtegene@lwcky.com)

4. AT&T KY  
3719 Bardstown Road - 2nd Floor  
Louisville, KY 40218  
Morgan Herndon  
[morgan.herndon@att.com](mailto:morgan.herndon@att.com)  
(502) 458-7312

5. Metropolitan Sewer District  
700 West Liberty Street  
Louisville, KY 40203-1911  
Steve Emly  
[emly@msdlouky.org](mailto:emly@msdlouky.org)  
(502)540-6509  
Brad Selch  
[selchb@msdlouky.org](mailto:selchb@msdlouky.org)  
(502) 540-6614

**Send to both**

### **contacts**

6. Insight Communications Company  
4701 Commerce Crossings Dr.  
Louisville, KY40229  
Deno Barbour  
Cell: (502) 664-7395  
[barbour.d@insightcom.com](mailto:barbour.d@insightcom.com)
7. Texas Gas Transmission Corporation  
3800 Frederica Street  
Owensboro, KY 42302  
(270) 688-6325  
Tim Turner  
(270) 688-6461  
[tim.turner@bwpmlp.com](mailto:tim.turner@bwpmlp.com)
8. Marathon Ashland Pipeline Company  
1046 Pleasant Valley Rd.  
Jeff Erwin  
[JAErwin@MAPLLC.com](mailto:JAErwin@MAPLLC.com) or

7/14/2011

Owensboro, KY 42303

[JAErwin@MarathonOil.com](mailto:JAErwin@MarathonOil.com)  
(270) 926-5579

9. Indiana Gas Company Inc  
d.b.a. Vectren Energy Delivery of Indiana, Inc  
or  
Ohio River Pipeline Corporation  
2520 Lincoln Drive  
Clarksville, Indiana 47129

Mary Barber  
[mbarber@vectren.com](mailto:mbarber@vectren.com)  
(812) 948-4952

**Line Maintained By**  
Texas Gas Transmission, LLC  
3800 Frederica Street  
Owensboro, Kentucky 42302  
Cell: (270) 485-1152

Tim Turner  
(270) 688-6461  
[Tim.Turner@bwpmlp.com](mailto:Tim.Turner@bwpmlp.com)

10. Indiana Utilities Corporation  
123 West Chestnut Street  
Corydon, Indiana 47112  
(812) 738-3235

Kevin Kinney  
Ron Timberlake  
Jackie Rogers  
[iucjrogers@portative.net](mailto:iucjrogers@portative.net)

11. Sprint - Fiber Optics  
11370 Enterprise Park Dr.  
Sharonville, OH 45241

Joe Thomas  
[Joseph.J.Thomas@Sprint.com](mailto:Joseph.J.Thomas@Sprint.com)  
Office (513) 612-4204  
Cell (937) 209-9754

12. Mid-Valley Pipeline Company  
4910 Limaburg Road  
Burlington, KY 41005  
FAX (866) 699-1185

Todd Calfee (Richard)  
(859) 371-4469x14  
(859) 630-8271  
[RTCALFEE@sunocologistics.com](mailto:RTCALFEE@sunocologistics.com)

13. Level 3 Communications  
848 S.8<sup>th</sup> St.  
Louisville, KY 40202

Kevin Webster  
[Kevin.webster@level3.com](mailto:Kevin.webster@level3.com)  
(502) 777-8622

14. Jefferson County Public Schools (JCPS)  
MIS Dept.  
3332 Newburg Road  
Louisville, KY 40218

Bo Lowrey  
[bo.lowrey@jefferson.kyschools.us](mailto:bo.lowrey@jefferson.kyschools.us)  
Cell (502) 639-2311  
(502) 485-3116

15. Kentucky Data Link (KDL now Windstream)  
Project Manager

Rick Cunico  
ph: (618) 648-2420

7/14/2011

3701 Communications Way  
Evansville, IN 47715

cell: (812) 760-6602  
Fax: (812) 456-4731  
(812) 759-7844(Maintenance)

[WCI.maintenance.south@windstream.com](mailto:WCI.maintenance.south@windstream.com)

**16** AT&T Legacy  
5390 Overbend Trail  
Suwanee, GA 30024

Scott Logeman  
Cell: (770) 335-8255  
[SL1213@att.com](mailto:SL1213@att.com)

**17.** TWTelecom  
Medinger Tower  
[Jeremy.cornell@TWTELECOM.com](mailto:Jeremy.cornell@TWTELECOM.com)  
462 S. 4<sup>th</sup> St., Suite 210  
Louisville, KY 40202

Jeremy Cornell

(502) 992-1168

333 West Vine Street, Suite 330  
Lexington, KY 40507

Gerald Long  
[Gerald.Long@twtelecom.com](mailto:Gerald.Long@twtelecom.com)  
(502) 719-2387

**18.** City of Taylorsville Sewer & Water  
70 Taylorsville Rd., P O Box 279  
Taylorsville, KY 40071

Harold Compton  
[hcompton@taylorsvillewater.org](mailto:hcompton@taylorsvillewater.org)  
(502) 477-3235  
Fax: (502) 477-1310

**19.** Qwest Communications Company, LLC  
700 W Mineral Ave, UTD2734  
Littleton, Colorado 80120

George McElvain  
[George.McElvain@qwest.com](mailto:George.McElvain@qwest.com)  
(303) 992-9931  
Cell:720-260-2514  
Fax:303-707-3252

**20.** Shelby Energy Cooperative  
P.O. Box 311, 620 Old Finchville Road  
Shelbyville, KY 40065  
(502) 633-4420

Jason Ginn  
[Jason@shelbyenergy.com](mailto:Jason@shelbyenergy.com)  
cell: 502-643-2778

**21.** Atmos Energy  
130 Stonecrest Road Suite105  
(502) 633-2831 ext. 104  
Shelbyville, KY 40065

Bernie Anderson  
cell: 502-321-8073  
[bernie.anderson@atmosenergy.com](mailto:bernie.anderson@atmosenergy.com)

AND  
Earl Taylor

7/14/2011

[Earl.taylor@atmosenergy.com](mailto:Earl.taylor@atmosenergy.com)

Cell: 859-583-0306

Office: 859-236-2300

### **AIRPORT CONTACTS**

Steve Stoker (502) 375-7360 – FFA Location Manager

Jack Stauble (502) 664-9637 cell – FFA Location Technician

Chuck Hensley (502) 380-8356 EXT 356 – Construction Manager  
Louisville Regional Airport Authority

Andy Hepfinger (502) 329-3706 – UPS Construction

Brian Knesco (502) 741-2922 – UPS Construction

### **Railroad Companies**

**1. C.S.X. Transportation, Inc.**

Contacts:

David Hall, KY Liaison, (502) 815-1865

Milton Holder – crossings – cell (502) 817-2011

John Williams – crossings – cell (502) 376-8745, Office (502) 364-1133

Joe Malandruco (Florida) – signals (904) 245-1160

**2. Norfolk - Southern Railway Company**

Norfolk - Southern Railway Company (Roy Johnson to provide contact data)

Mr. J. N. Carter, Jr. Chief Engineer

Bridges and Structures

Norfolk Southern Corporation

1200 Peachtree Street

Atlanta, Georgia 30309

**3. Paducah and Louisville Railway, Inc.**

Gerald Gupton, Office: (270) 444-4386