

# CONFIDENTIAL

**Table 1**  
**Illinois Special Status Species**  
**Habitat by County and Mainline Milepost**  
**Keystone Pipeline Project**

Species	Status	Suggested Survey Period	Survey Frequency	Survey Protocol Summary	Survey Counties	Miles (mi) of Associated Habitat Crossed by Keystone Pipeline Project					Mainline Milepost(s)
						Grassland (mi)	Forests and Woodlands (mi)	Riparian (mi)	Nonforested Emergent Wetland (mi) <sup>1</sup>	Open Water (mi) (habitat crossed or within 0.5 mi)	
<b>Gray bat</b> <i>Myotis grisescens</i>	FE; IL-E		None Proposed	Survey any caves in Madison County within 0.25-mile of ROW prior to any cave disturbing activities.	Madison		Madison: 1.0	Madison: 1.7			Madison: 1021.7-1041.8
<b>Indiana bat</b> <i>Myotis sodalis</i>	FE; IL-E	Oct to March	One ground survey to identify potential maternity roost trees along ROW that may need to be removed	Surveys for suitable maternity roost habitat within 100 meters of ROW. Tree Removal: trees should be cleared before April 1 to prevent bats from roosting in trees prior to construction.	Bond Fayette Madison Marion		Bond: 1.3 Fayette: 0 Madison: 1.0 Marion: 0	Bond: 0.6 Fayette: 3.4 Madison: 1.7 Marion: 0			Bond: 1048.7-1056.3 Fayette: 1064.7-1068.1 Madison: 1021.7-1033.4, 1036.4-1041.8 Marion: N/A
<b>River otter</b> <i>Lontra Canadensis</i>	IL-E	Denning Season: March thru Sept.	One ground survey prior to disturbance	0.25-mile upstream and downstream of river crossing on both sides of the river bank	Bond Fayette					Bond: 0.1 (Shoal Creek) Fayette: 3.1 (Carlyle WMA)	Bond: 1050.8 (Shoal Creek) Fayette: 1065 - 1068.1 (Carlyle WMA)
<b>Bald eagle</b> <i>Haliaeetus leucocephalus</i>	FT; IL-T	Breeding Season: 1-Feb to 15-Aug.  Winter roost sites: 1-Nov. to 1-April	Conduct breeding and winter roost surveys if construction occurs during the breeding season/ winter roost season along river corridors only	USFWS suggests surveying one-mile upstream and one-mile downstream of major rivers or historical nest or winter roost sites crossed by project.	Bond Fayette Madison					Bond: 0 (Lake Lola, waterbody) Fayette: 3.1 (Carlyle Wildlife Management Area) Madison: 1.1 (Mississippi River, Silver Lake)	Bond: 1055.3 - 1055.6 (Lake Lola), 1063 (waterbody) Fayette: 1065 - 1068.1 (Carlyle WMA) Madison: 1016.6 - 1017.2 (Mississippi River), 1041.5 - 1041.7 (Silver Lake)
<b>Barn owl</b> <i>Tyto alba</i>	IL-E	Nesting Season: March thru June	One ground survey prior to any construction.	Visit any old buildings, barns that are in the path of the pipeline between March and June, and look for nesting birds in the upper portions of the structure.	Fayette Marion	Fayette: 0 Marion: 0	Fayette: 0 Marion: 0				Fayette: N/A Marion: N/A
<b>Henslow's sparrow</b> <i>Ammodramus henslowii</i>	IL-E	Nesting Season: Late April to Late July	One ground survey prior to any construction.		Madison	Madison: 0.6	Madison: 1.0				Madison: 1025.4-1033.4, 1038.3-1044.8
<b>Least bittern</b> <i>Ixobrychus exilis</i>	IL-T	Nesting Season: May to July	One ground survey prior to any construction.		Fayette Madison				data pending data pending		Fayette: data pending Madison: data pending
<b>Loggerhead shrike</b> <i>Lanius ludovicianus</i>	IL-T	Nesting Season: March to June	One ground survey prior to any construction.		Bond Fayette Marion	Bond: 0.9 Fayette: 0 Marion: 0	Bond: 1.3 Fayette: 0 Marion: 0				Bond: 1048.7-1059.9 Fayette: N/A Marion: N/A
<b>Peregrine falcon</b> <i>Falco peregrinus</i>	IL-T	Nesting Season: March to July	None Proposed		Madison			Madison: 2.0	data pending		Madison: 1017.1-1022.8, 1036.4-1041.8; data pending
<b>Pied-billed grebe</b> <i>Podilymbus podiceps</i>	IL-T	Nesting Season: April to Sept.	One ground survey prior to any construction.		Fayette			Fayette: 3.4	data pending	Fayette: 3.1 (Carlyle WMA)	Fayette: 1064.7-1068.1 (Carlyle WMA)
<b>Yellow-crowned night heron</b> <i>Nyctanassa violacea</i>	IL-E	Summer Residence: 15-April to 30-Aug.	None Proposed	Rare, non-breeding summer resident	Fayette			Fayette: 3.4	data pending		Fayette: 1064.7-1068.1
<b>Lake sturgeon</b> <i>Acipenser fulvescens</i>	IL-E		None Proposed	HDD Mississippi River	Madison					Madison: 0.5 (Mississippi River)	Madison: 1016.6-1017.1 (Mississippi River)
<b>Pallid sturgeon</b> <i>Scaphirhynchus albus</i>	FE; IL-E		None Proposed	HDD Mississippi River	Madison Fayette					Madison: 0.5 (Mississippi River) Fayette: 0.1 (Kaskaskia River)	Madison: 1016.6-1017.1 (Mississippi River) Fayette: 1067.6-1067.7 (Kaskaskia River)
<b>Western sand darter</b> <i>Ammocrypta clarum</i>	IL-E	Spawning Season:	Possibly one ground survey	Surveys may be needed depending on river crossing methods, and season of construction.	Fayette					Fayette: 0.1 (Kaskaskia River)	Fayette: 1067.6-1067.7 (Kaskaskia River)

<sup>1</sup> Data pending; waiting on completion of wetland/waterbody surveys to determine total wetland habitat crossed.

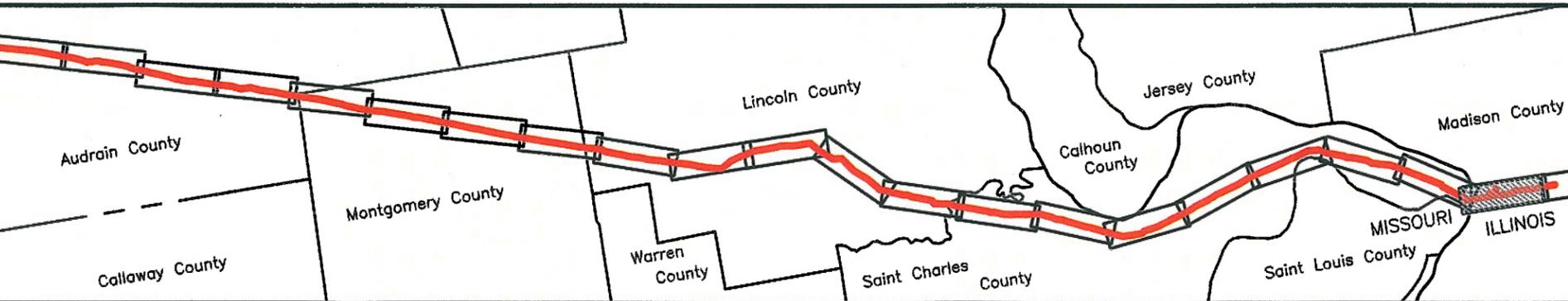
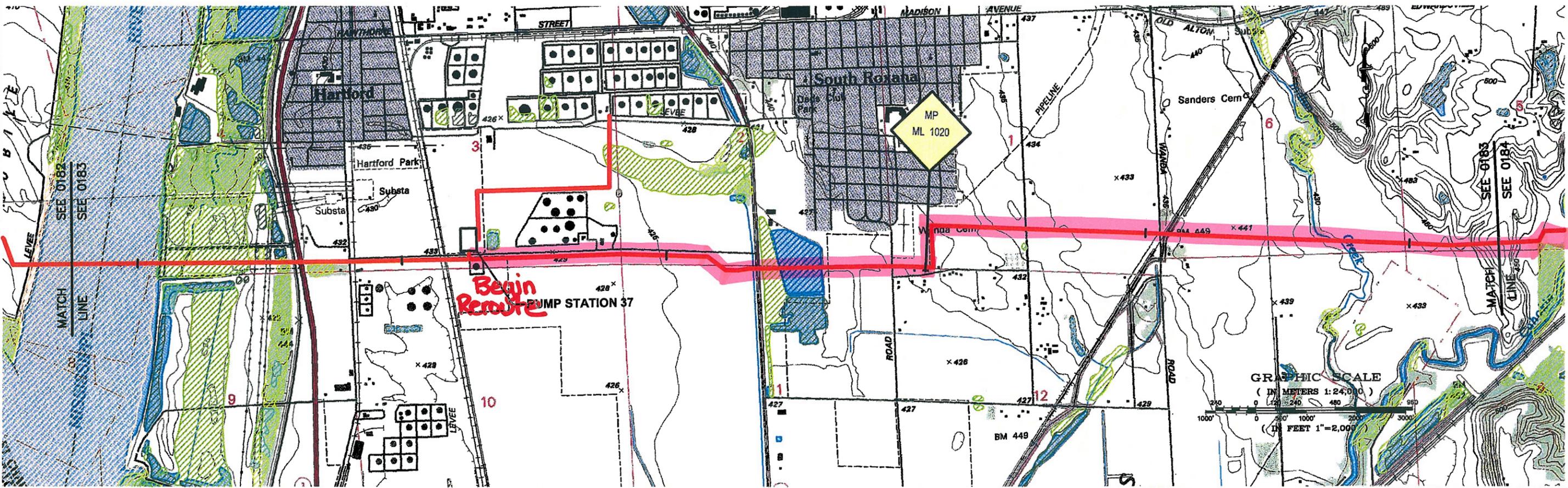
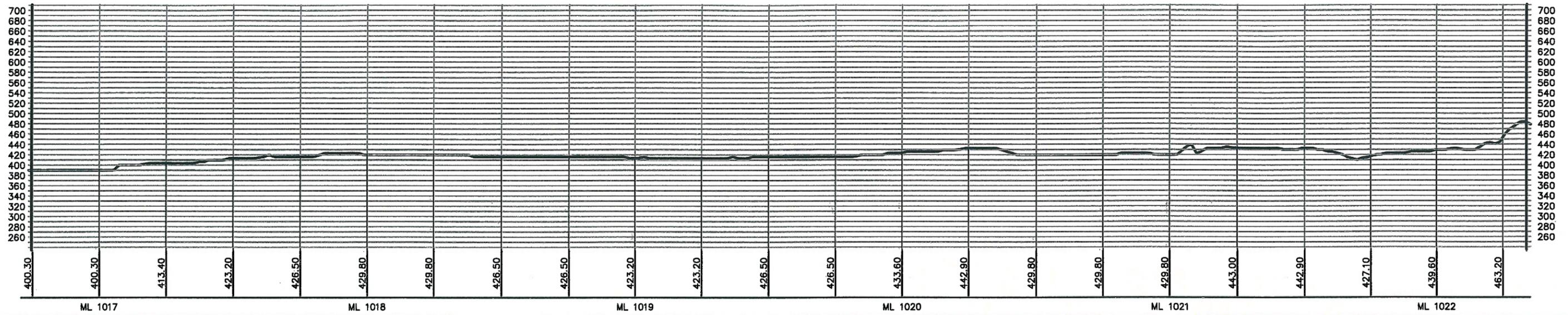
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<b>Eastern massasauga</b> <i>Sistrurus catenatus catenatus</i>	FC; IL-E	Spring Egress: March to April	One ground survey prior to construction	The best time to survey for this species is done during the spring egress out of the crawfish burrows. This occurs from March to April. The massasauga will bask during this period, unless the temperatures get hot quickly. It also helps to survey directly following the winter burn, when the previous year's grass has been burned off. Massasaugas are not very mobile, and usually do not travel more than 200 m from their burrows.	Bond Fayette Madison			Bond: 0.8 Fayette: 3.4 Madison: 2.0	<i>data pending</i> <i>data pending</i> <i>data pending</i>		Bond: 1050.7-1055.1; <i>data pending</i> Fayette: 1064.7-1068.1; <i>data pending</i> Madison: 1017.1-1022.8, 1036.4-1041.8; <i>data pending</i>
<b>Kirtland's snake</b> <i>Clonophis kirtlandi</i>	IL-T	Spring Egress: March to April	None Proposed	This species is extremely secretive and elusive, and nocturnal. The best way to survey for this species is by turning objects in its appropriate habitat. It is very difficult to find especially when it retreats down into crawfish burrows. The best time to look for this species is from March to April.	Fayette				<i>data pending</i>		Fayette: <i>data pending</i>
<b>Illinois chorus frog</b> <i>Pseudacris strecheri illino</i>	IL-T	Mating Season: February - March	None Proposed	This frog is aboveground only for a short period of time during the mating season. In Madison county mating occurs from February to March. The remainder of the year, this species remains hidden in underground burrows. The best way to survey for the species is to conduct "calling surveys." These calling surveys are best done during rainy nights.	Madison	Madison: 0.6					Madison: 1025.4-1025.5, 1038.3-1038.6, 1044.5-1044.8
<b>Decurrent false aster</b> <i>Boltonia decurrens</i>	FT; IL-T	Flowering Period: Aug-October	One ground survey prior to construction	Mississippi River floodplain within ROW, ditch banks and flood-prone areas of ag. fields. Survey would need to be repeated if river flood events inundate and recede from surveyed areas prior to construction	Madison			Madison: 2.0	<i>data pending</i>		Madison: 1017.1-1022.8, 1036.4-1041.8; <i>data pending</i>
<b>Eastern prairie fringed orchid</b> <i>Platanthera leucophaea</i>	FT; IL-E	Flowers: end-June to mid-July	One ground survey if any native prairie is crossed within ROW	This species is found only in native prairie. Probably does not occur along the project route unless the route crosses any native prairie remnants. The best time to survey for this species is during the flowering period, end of June through mid-July.	Bond Fayette Madison Marion				<i>data pending</i> <i>data pending</i> <i>data pending</i> <i>data pending</i>		Bond: <i>data pending</i> Fayette: <i>data pending</i> Madison: <i>data pending</i> Marion: <i>data pending</i>
<b>Prairie bush-clover</b> <i>Lespedeza leptostachya</i>	FT; IL-E		None Proposed	Species does not occur in project area.	Bond Fayette Madison Marion	0.9 0 0.6 0					Bond: 1059.0-1059.9 Fayette: N/A Madison: 1025.4-1025.5, 1038.3-1038.6, 1044.5-1044.8 Marion: N/A
<b>Prairie Spiderwort</b> <i>Tradescantia bracteata</i>	IL-T	Flowering Period: May to early-June	One ground survey prior to construction	This species prefers disturbed areas, and has been found near railroad ballasts in sandy or gravelly soil. It is known to occur in the Poag Road Prairie west of Collinsville. The best time to survey for this species is during the flowering period, May to early-June.	Madison	Madison: 0.6					Madison: 1025.4-1025.5, 1038.3-1038.6, 1044.5-1044.8
<b>Royal Catchfly</b> <i>Silene regia</i>	IL-E			Hasn't been seen in Madison county since 1985. May occur in the Poag Road Prairie or the Railroad Prairie.	Madison	Madison: 0.6	Madison: 1.0				Madison: 1025.4-1033.4, 1038.3-1044.8
<b>Spring Ladies' Tresses</b> <i>Spiranthes vernalis</i>	IL-E	Flowering Period: Late summer to early fall	One ground survey prior to construction	Has shown up sporadically around Madison County. Can show up anywhere for a few years and then disappear and show up in a different area. Perennial that flowers from late summer to fall. Best time to survey is during the flowering period.	Madison			Madison: 2.0	<i>data pending</i>		Madison: 1017.1-1022.8, 1036.4-1041.8; <i>data pending</i>

<sup>1</sup> Data pending; waiting on completion of wetland/waterbody surveys to determine total wetland habitat crossed.

ELEVATIONS SHOWN IN FEET - VERTICAL=10x HORIZONTAL SCALE

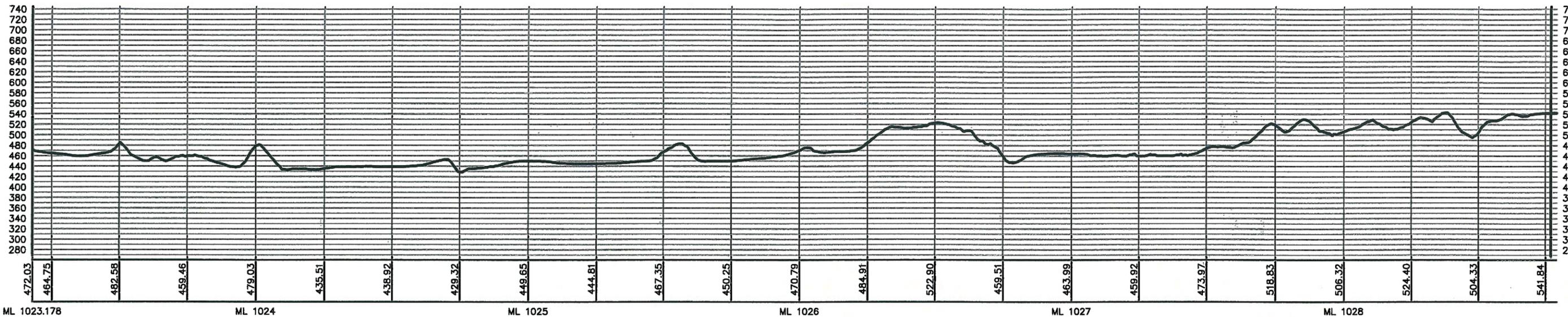


PREPARED BY: <b>TROW ENGINEERING CONSULTANTS, INC.</b> 1300 Metropolitan Boulevard, Suite 200 Tallahassee, Florida 32308 Phone: 1-850-385-5441 Fax: 1-850-385-5523			 <b>Trow</b>		 In business to deliver	
<b>KEYSTONE PIPELINE PROJECT PROPOSED ROUTE BOOK</b>						
MAP PARAMETERS PROJECTION: NAD83, UTM: 15N SCALE: 1:24,000; 1" = 2,000'						
PROJECT: 50388E			SHEET: <b>0183</b>			
ISSUED FOR DEPARTMENT OF STATE FILING      MAR.13.06						
DRAWING NUMBER	DRAWN BY	CHECKED BY	APPROVED BY			
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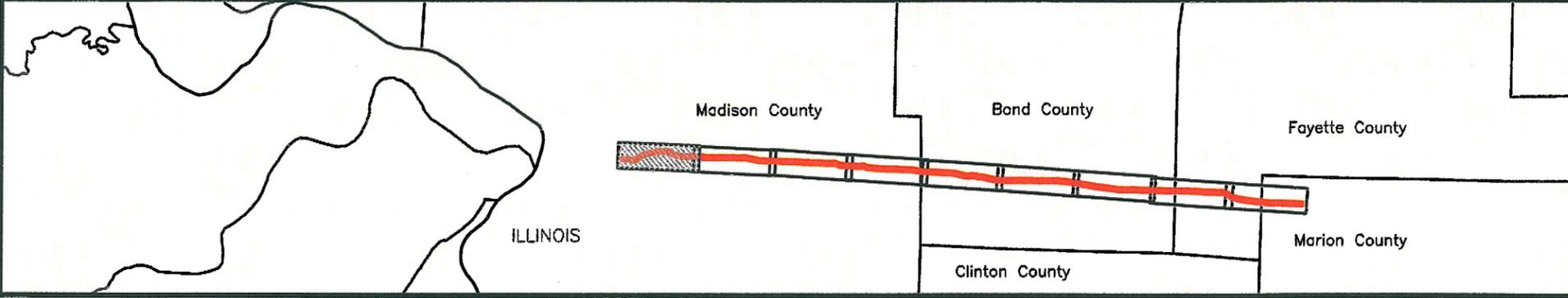
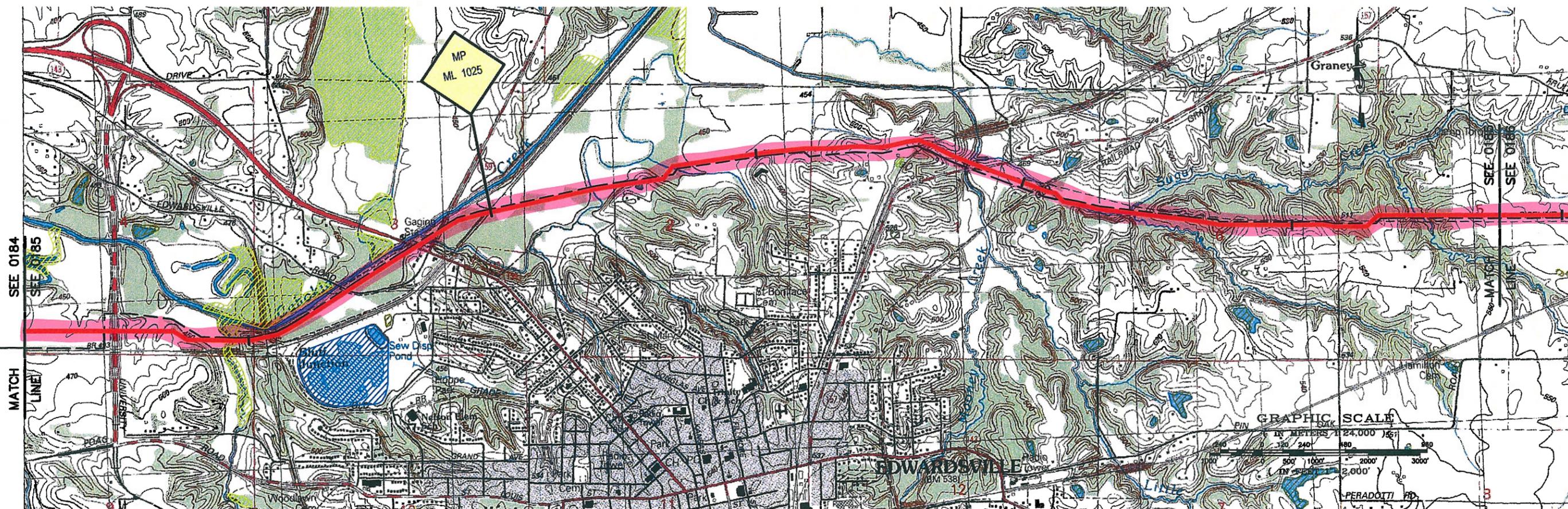
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ELEVATIONS SHOWN IN FEET



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PREPARED BY:  
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NO.	REVISION	DATE
0	ISSUED FOR DEPARTMENT OF STATE FILING	MAR 13.06

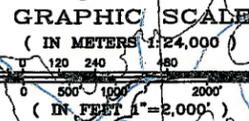
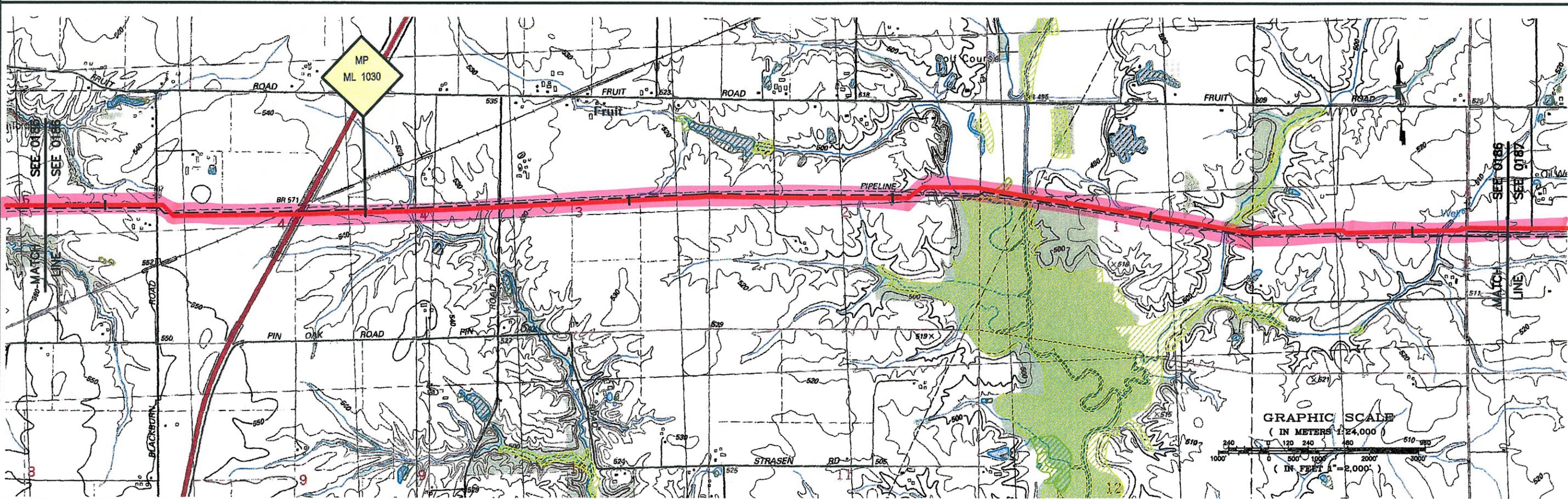
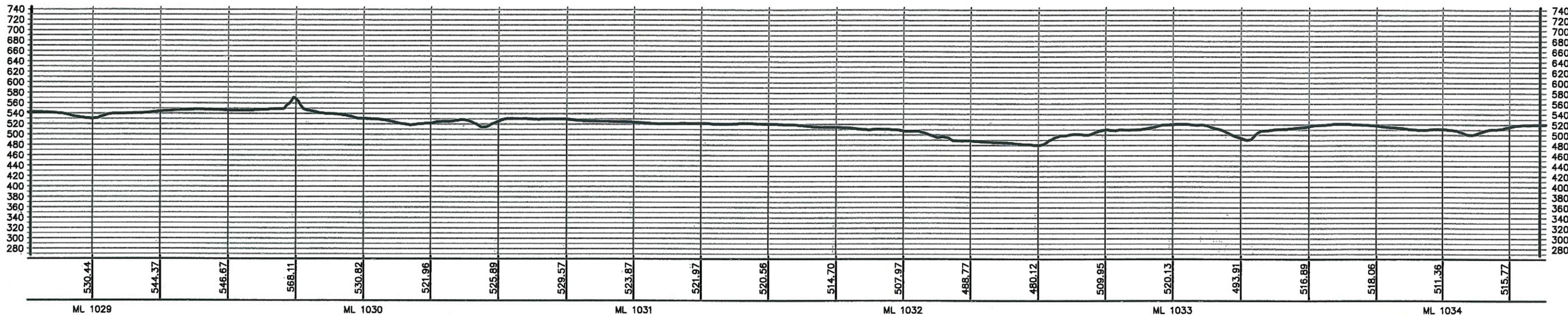
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**KEYSTONE PIPELINE PROJECT  
 PROPOSED ROUTE BOOK**

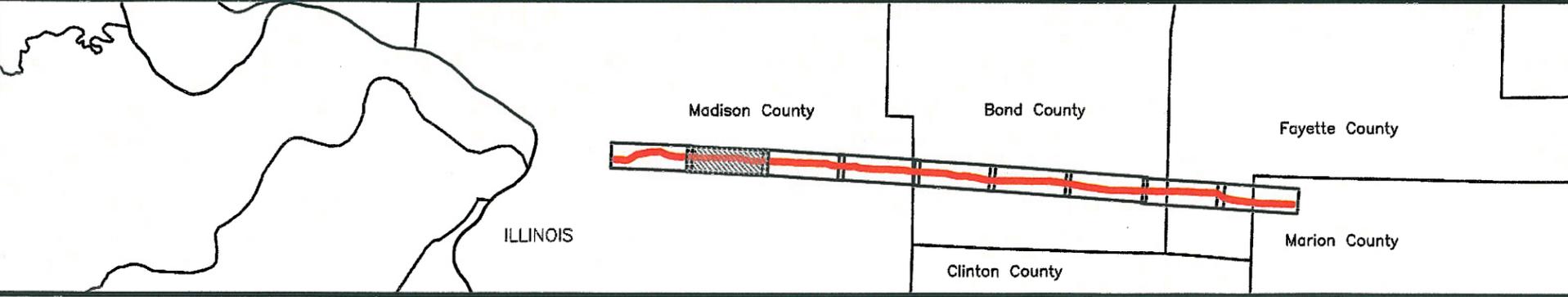
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 SCALE: 1:24000, 1" = 2000'

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ELEVATIONS SHOWN IN FEET



K:\Drawings\50388A KEYSTONE\DRAWING FILES\DRAWINGS\16N-17-P-900-A-185-rd2.dwg 3/9/2006 8:51:20 AM EST



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NO.	REVISION	DATE
0	ISSUED FOR DEPARTMENT OF STATE FILING	MAR 13.06
DRAWING NUMBER	DRAWN BY	CHECKED BY
K-17-P-900-A-0003	BEK	BLS

**KEYSTONE PIPELINE PROJECT  
 PROPOSED ROUTE BOOK**

MAP PARAMETERS  
 PROJECTION: NAD83, UTM: 16N  
 SCALE: 1:24000, 1" = 2000'

PROJECT:	SHEET:
50388E	<b>0186</b>
APPROVED BY:	LAST PLOT DATE:
RG	Mon, 20 Mar 2006 - 8:51pm