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Date: May 1, 2009	Job No: 064101

RE: Corridors Development and Screening Process

INTRODUCTION

The purpose of this memorandum is to document the corridor development and screening process for US 51 EIS.

Concurrence on the project Purpose and Need (P&N) was received at the February 2009 NEPA/404 Merger meeting. The Purpose of the US 51 project is to improve the connectivity with the south central Illinois region and to enhance the highway system continuity. The region needs a centralized roadway that effectively connects communities as well as local and commercial centers, while also providing a roadway that promotes efficient and safe travel in the region for a wide variety of transportation users.

Through the CSS process and working with the Project's Citizen's Advisory Groups, Regional Advisory Group, and Project Study Group ranges of preliminary corridors were developed. Meetings/workshops were held with the CAGs in Fall/Winter 2008 to develop preliminary corridors based upon their understanding of the Project Study Area and the project context.

The brainstorm sessions held with the Advisory groups prior to receiving concurrence on the P&N did not impose "don'ts or can'ts" on where corridors were drawn. It was understood that the preliminary corridors would be narrowed to a reasonable range for further study that address the projects approved Purpose and Need. Sensitive or protected resources considered to be fatal flaws to corridor development were discussed at the workshops and shown on the exhibits. In general, corridors were not drawn through Nature Preserves, State Parks, Threatened and Endangered Species, or National Register of Historic Sites/Eligible Sites even though during the preliminary develop process corridor ideas were not restricted.

Another round of CAG meetings held between February 24 and March 11, 2009, presented the full range of preliminary corridors developed for US 51 for further refinement. CAG input eliminated some of the preliminary corridors using evaluation criteria focused on the P&N of the project while modifying or combining others into one corridor. Corridors were modified or combined if they met the same intent as a similar corridor (or corridors), had the same termini, and were located in the same general area. The RAG, PSG, and project study team evaluated the remaining corridor alternatives after CAG elimination/consolidation and returned some of the eliminated corridors to the range for further study to ensure a reasonable range were still being considered. Eliminated corridors that met the P&N, whose intent was not similar to a remaining corridor or that provided a logical connection between existing US 51 and a proposed corridor, were returned to the range for further study.

METHODOLOGY

The criteria used to eliminate or consolidate corridors were based on the issues set forth in the P&N, dated October 2008 and approved February 2009. Criteria #1 to #6 listed below are included in the P&N. Criteria #7 and #8 were generated from the CAG meetings to consolidate similar corridors and avoid resources considered to be known fatal flaws.

Screening criteria and descriptions of the screening criteria used for consolidation, modification, and elimination of corridors are listed below in Table 1a and 1b.

Table 1a. Corridor Screening Criteria

Criteria #	How does it meet Purpose and Need - Continuity or Connectivity?	Corridor Screening Criteria
1	Continuity	Safe and Efficient Travel
2	Continuity	Encourage Long Distance Travel (<i>related to Travel Time</i>)
3	Connectivity	Promote/Encourage the Movement of Goods and Services
4	Connectivity	Improve Connectivity in South Central Illinois Region
5	Connectivity	Enhance Highway System Connectivity
6	Connectivity	Provide an Efficient North-South Route (<i>related to Distance</i>)
7	Consolidation	Represents a Similar Corridor/Created a Best Fit Line
8	Fatal Flaw	Known Fatal Flaw Avoided

Table 1b. Corridor Screening Criteria Description

Description of Corridor Screening Criteria		
1	Continuity	Safe and Efficient Travel
		The existing US 51 highway is a two-lane facility that does not provide for efficient and safe travel between local communities. It is unsafe for cars, trucks, buses, pedestrians, bicycles, and farm equipment to share the road at the same time. Slow moving farm equipment sharing the road with faster moving cars and trucks is a safety concern with this two-lane facility. The proposed alternative promotes safe and efficient travel for a wide variety of transportation users.
2	Continuity	Encourage Long Distance Travel (related to Travel Time)
		Drivers using US 51 encounter traffic signals in Centralia and Vandalia, at-grade railroad crossings in Sandoval and Centralia, business districts with on-street parking and cross streets, and multiple changes in speed limits, therefore, the existing US 51 highway hinders long distance travel. This highway undergoes an east-west "jog" at the south end of Vandalia. Since there are stop signs at the west intersection and traffic signals at the east intersection, free flow is hindered and travel times are increased. On another note, throughout the Project Study Area, travelers entering or exiting driveways and field entrances often also slow the through traffic along US 51. The proposed alternative encourages free flow and minimal travel times.
3	Connectivity	Promote/Encourage the Movement of Goods and Services
		The existing US 51 highway limits the movement of goods and services, as well as, limits tourism and commerce. Traffic volumes in the region indicate that US 51 volumes are expected to increase due to annual growth and proposed development. The movement of goods and services are better served by uninterrupted flow. The proposed alternative promotes and encourages the movement of goods and services through uninterrupted flow.
4	Connectivity	Improve Connectivity in South Central Illinois Region
		One of the purposes of this Study is to improve the connectivity within the south central Illinois region. The region needs a centralized roadway that effectively connects communities as well as local and commercial centers. The proposed alternative provides efficient access for all types of transportation in south central Illinois.
5	Connectivity	Enhance Highway System Connectivity
		The existing US 51 highway connects local communities in addition to providing access to routes connecting to metropolitan areas throughout the Midwest region. The proposed US 51 highway should consider improved access to I-70 in Vandalia, US 50 in Sandoval, and IL 161 in Centralia. Considering that regional employment centers are scattered throughout the Project Study Area, the proposed alternative enhances efficient connections to interstates and major communities.
6	Connectivity	Provide an Efficient North-South Route (related to Distance)
		The existing US 51 highway is currently the most efficient north-south route for access to the local communities. Other modes of transportation are available in the region, such as rail and air that connect to destinations regionally and nationwide, but do not provide as efficient of a north-south route connection as does the current US 51 highway. The proposed alternative provides a reasonable distance for travel from the north end to the south end.
7	Consolidation	Represents a Similar Corridor/Created a Best Fit Line
		After developing an initial set of alternatives, the CAGs eliminated corridors where a range of options, in general proximity, represented the same intent or duplicated the function of another alternative. If more than one corridor with the same direction (or general route) and the same intent, a "best fit" line was created and carried forth to the next evaluation round.
8	Fatal Flaw	Known Fatal Flaw Avoided
		The corridor impacts a known Nature Preserve, State Park, Threatened and Endangered Species, or National Register of Historic Sites/Eligible Site. Other practicable corridors exist, therefore, the alternative is no longer considered.

FIELD VERIFICATION

Team members visited the Project Study Area during the months of March and April 2009. During these field visits, locations of corridors for further consideration were inspected to verify that they meet the evaluation criteria and to identify resources that were not detected through aerial mapping or other data sources. The visits also provided opportunity to confirm that a comprehensive range of corridors were developed for evaluation.

CORRIDOR EVALUATION

During the CAG meetings held in February and March of 2009, the initial corridors developed by the CAGs were presented. Refer to the attached Preliminary Alternatives Exhibits (24" x 36") for a depiction of the corridor locations. Corridors were then carried forward, eliminated, or combined and modified based on the Screening Criteria listed in Table 1. Several corridors were developed at the CAG meetings by creating a best fit from several of the initial range of corridors. If a corridor did not meet any of the criteria outlined in the previous section, then that corridor was eliminated for further consideration.

Table 2, on the following page, compares the initial range of corridors (shaded) to the corridors that have been included for further evaluation.

Tables 3 through 7 (separate attachment) summarize the corridor screening for each community. In these tables, the initial range of corridors is listed in addition to the combined/best fit list of corridors. If any corridors were modified or combined into a best fit line corridor, then a new number was assigned. The rows within the table are divided into the initial range of corridors and then the combined/modified list of corridors. The shaded rows are the corridors that will be further evaluated in the next rounds of the alternative analysis. If the corridor is being further evaluated, then the explanation will indicate whether it meets the screening criteria or if it has been modified and represented by a new corridor number.

The Preliminary Alternatives Exhibits illustrate the initial range of corridors and the combined or modified corridors. The initial range of corridors are shown in a thin line weight, while the corridors for further evaluation are shown in a thick line with larger alpha-numeric numbering surrounded by a 500-foot buffer represented by the transparent highlighted border.

NEXT STEPS

Corridors for further consideration will undergo a Macro-Analysis of impacts to known resources in the Project Study Area. Measures of effectiveness (MOE) will be evaluated for environmental, community, agricultural, cultural, and operations criterion. The resource information that will be used in the Macro Analysis is from database sources such as NWI, HAARGIS, FEMA, and IDNR. Minor shifts may occur in some corridors as the study advances to avoid cultural or biological impacts that are identified as more detail is uncovered. Upon completion of the Macro Analysis, preliminary alignments will be developed within the remaining corridors. Alignments will be evaluated using a higher level of detail as information is provided from IDOT BDE, INHS, and ISGS.

Table 2. Comparison of Initial Range of Corridors to Corridors for Further Evaluation.

Ramsey Corridors	Vandalia Corridors		Vernon-Patoka Corridors	Sandoval Corridors	Centralia Corridors	
R1	V1	V47	VP1	S1	C1	C47
R2	V2	V48	VP2	S2	C2	C48
R3	V3	V49	VP3	S3	C3	C49
R4	V4	V50	VP4	S4	C4	C50
R5	V5	V51	VP5	S5	C5	C51
R6	V6	V52	VP6	S6	C6	C52
R7	V7	V53	VP7	S7	C7	C53
R8	V8	V54	VP8	S8	C8	C54
R9	V9	V55	VP9	S9	C9	C55
R10	V10	V56	VP10	S10	C10	C56
R11	V11	V57	VP11	S11	C11	C57
R12	V12	V58	VP12	S12	C12	C58
R13	V13	V59	VP13	S13	C13	C59
R14	V14	V60	VP14	S14	C14	C60
R15	V15	V61	VP15	S15	C15	C61
R16	V16	V62	VP16	S16	C16	C62
R17	V17	V63	VP17	S17	C17	C63
R18	V18	V64	VP18	S18	C18	
R19	V19	V65	VP19	S19	C19	
R20	V20	V66	VP20	S20	C20	
R21	V21	V67	VP21	S21	C21	
R22	V22	V68	VP22	S22	C22	
R23	V23	V69	VP23	S23	C23	
	V25	V70	VP24	S24	C24	
	V26		VP25	S25	C25	
	V26		VP26	S26	C26	
	V27		VP27	S27	C27	
	V28		VP28	S28	C28	
	V29		VP29	S29	C29	
	V30		VP30	S30	C30	
	V31		VP31	S31	C31	
	V32		VP32	S32	C32	
	V33		VP33	S33	C33	
	V34		VP34	S34	C34	
	V35		VP35	S35	C35	
	V36		VP36	S36	C36	
	V37		VP37	S37	C37	
	V38		VP38	S38	C38	
	V39		VP39	S39	C39	
	V40		VP40	S40	C40	
	V41		VP41	S41	C41	
	V42			S42	C42	
	V43			S43	C43	
	V44			S44	C44	
	V45			S45	C45	
	V46				C46	

Key

XX	Corridor within Initial Range eliminated from further study.
XX	Corridor for Further Consideration