Agency	Project	FY2005-06	FY2006-07
Department of Roads	PioneerNET	$ 1,500,000	$ 1,500,000

SUMMARY OF REQUEST (Executive Summary from the Proposal)

In order to realize the full benefits of Nebraska's Intelligent Transportation Systems (ITS), an integrated software that actively monitors current (and future) field devices is required. The PioneerNET system software will meet those needs unlike commercial, off-the-shelf systems that offer only limited integration and do not provide the necessary flexibility for future changes. Our current systems are not integrated and the software provided by the manufacturers forces redundant entry and multiple programs to manage the system. ITS devices save time, money and lives by reducing delay on the freeway system, improving response and clearance of incidents, as well as reduction in secondary crashes. PioneerNET will be the software package managing the various components which provide functionality to each of the District Operation Centers (DOC).

PioneerNET will be consistent with National Transportation Communication for ITS Protocol (NTCIP) and NITC guidelines and is expected to have positive Benefit/Cost (B/C) Ratios. The system will include video servers, software servers, databases, and archive management servers located in each District. Without PioneerNET, NDOR will struggle to actively manage the freeway system which will result in additional delay and safety issues to the motoring public.

The financial budget is outlined in the Highway Program and the STIP and consists of three projects:
1. Functional Design of the Software
2. System Manager/Integrator
3. Software Development and Implementation

FUNDING SUMMARY

The financial budget is outlined in the Highway Program and the STIP and consists of three projects:
1. Functional Design of the Software
2. System Manager/Integrator
3. Software Development and Implementation

ITSN(2) - 2	**ITSN(2) - 001**	**Statewide & FMS Final Design**		
ITSN(2) - 3a		FMS Planning / Preliminary Engineering Study	$	250,000
ITSN(2) - 3b		Omaha FMS Design	$	400,000
ITSN(2) - 2d		Statewide ITS Element Design / PS & E	$	500,000
ITSN(2) - 2a		Statewide (DOC) Design/Software Functional Design (2000-E1: RFP)	$	900,000
ITSN(2) - 3c		Omaha FMS Software Functional Design	$	250,000
	ITSN(2) - 003	**System Manager**		
ITSN(2) - 2c		Statewide Software System Manager	$	600,000
ITSN(2) - 3e		Omaha FMS Software / Systems Manager	$	350,000
	ITSN(2) - 004	**Software Development/Implementation**		
ITSN(2) - 2b		Statewide Software Development/Implementation	$	1,250,000
ITSN(2) - 3d		Omaha/D-2 Software Development and Implementation	$	750,000
ITSN(2) - 3f		Hardware / Video Design	$	200,000

The Hardware and software will be determined during the first project listed above. New FTE's are not required to develop the software, but ultimately are needed to operate the ITS system. Initial discussions have considered contract staff to operate the system.

Currently, TTG is programming $500,000 annually for system maintenance and enhancements.

State Funds are used to match (50/50) the Federal Dollars of an ITS Deployment Grant.

PROJECT SCORE

Section	Reviewer 1	Reviewer 2	Reviewer 3	**Mean**	Maximum Possible
III: Goals, Objectives, and Projected Outcomes	12	15	13	13.3	15
IV: Project Justification / Business Case	15	22	22	19.7	25
V: Technical Impact	13	19	19	17.0	20
IV: Preliminary Plan for Implementation	8	8	9	8.3	10
VII: Risk Assessment	5	10	9	8.0	10
VIII: Financial Analysis and Budget	14	19	14	15.7	20
			TOTAL	**82**	100

REVIEWER COMMENTS

Section	Strengths	Weaknesses
III: Goals, Objectives, and Projected Outcomes	- Clearly defined benefits and integration. - Examples good for understanding scope.	
IV: Project Justification / Business Case	- B/C ratios useful (if undocumented or explained).	- Another option that should be evaluated is whether it is more cost effective to have a central operations center rather than creating duplicative capabilities in each district office. What are the advantages and disadvantages of locating "video servers, software servers, databases and archive management servers" in each district office? How will data, information and decisions be integrated among district offices? - COTS solutions described as inadequate. The system proposed will be largely a custom system (i.e. one of a kind and proprietary). This means long-time operational costs will be higher and warranty help is more likely to be problematic.
V: Technical Impact		- No explanation of why COTS systems are not appropriate.
VI: Preliminary Plan for Implementation	- The project proposal identifies stakeholders and provides an overall timeframe. - Builds on an existing/ongoing project and requirement development.	- The project team is not identified, and there is no detail regarding the type of training that will be needed.
VII: Risk Assessment	- The barriers/risks stated were those typical of a custom application. There was good thought as to how to minimize the impact of those issues.	- This is a $5.5 million project that has a significant chance for scope creep and cost overruns, based on experience in other states. An additional strategy for mitigating this risk is to implement rigorous project management methods. - The barriers/risks stated were those typical of a custom application. These risks would be lessened by a less custom system, though other risks are then introduced.
VIII: Financial Analysis and Budget	- 50% federal match. - Project broken into phases.	- The financial analysis does not provide much detail about on-going operational costs, including the additional positions necessary to support the

Section	Strengths	Weaknesses
		system. - The budget seems large, though probably correct for development of a system. - Unclear on how amounts were reached (hourly, etc). Unclear on what will be state and/or federally funded. Very difficult to estimate development costs before requirements are completed.