Problem Statement

Try to keep below 500 words

4 sections (*do not label*) Guide-lines not cast in stone

Section 1 Problem (*What it is*) and Rational (*Why is important*)

Start with a general background statement 3 Examples

Effective Communication with the public is an increasing important function of the ISE professional.

Engineers in the infrastructural area are continually asked to more for less. One way of meeting this goal is to establish effective prioritization strategies for distributing resources among candidate projects.

In recent times Security of the public has become an important job function for the ISE professional.

Then go to the specific ---indicating what the problem is and why it needs to be solved, <u>hint</u> at the solution.

A key example of where public communication is important is in providing timely information to homeowners when local reconstruction projects are to be undertaken. Currently this task is undertaken by ---- . This is extremely time consuming and labor intensive and as a result key information is not relayed to the public in a timely manner, therby eroding public confidence in the agency. The use of web and internet technologies could prove to be an effective solution.

For example, in local street construction there is, in a given year, always insufficient funds to carry out all of the candidate projects. This requires a prioritization of the presented projects. Currently this is done in an ad-hoc fashion which can result in a far from optimum upgrading of the infrastructure. The intention of this work is to show that the techniques of infrastructure management (e.g., asset management) can offer an effective route to an optimum prioritization procedure.

A major concern in the security area is the mass evacuation of metropolitan area. The key problem is that the control of the transportation structure falls under a range of law, municipal, state and federal agencies. An effective evacuation plan can only be developed if a protocol of cooperation is established among the key stake holders. Establishing

End this first para. with a statement of why a solution will be of benefit

An internet system that will allow the public ready access to information will have a significant impact of the effectiveness of the agency and the standing of their public perception.

Optimum prioritization of street reconstruction will have a significant impact on stretching limited resources

An effective evacuation strategy will play a significant role in reducing casualties in the event of a major incident in a metropolitan area.

Section 2. *A sharp snappy statement of your objective—this is the heart of what you will do*

The objective of this work is to develop a web page that can be used to communicate timely information to the public during local street reconstruction projects.

The intention of this work is to use ISE technologies to arrive at robust and subjective criteria for prioritizing the use of funds in local street reconstruction.

The aim of this work is to identify all of the agencies that control metropolitan transportation systems, delineate their main areas of responsibility, and begin to identify where lines of communication need to be established toward a viable evacuation plan for St-Paul.

Section 3 *Outline the methods you will use (present tense)*

In creating this web page the main tasks are, the identification of the critical information and of a web format that can be readily updated. The identification of the critical information will be achieved through an historical review of previous projects and interviews, via a questionnaire, (*if you are going to us a questionnaire—do it NOW)* with engineers charged with this communication.

From historical data an example list of potential projects for a make-believe city is established. The techniques of ISE management are used to establish various prioritizing strategies. These strategies are then used to prioritize the projects in the list. The outcomes are carefully analyses in odder to identify the most appropriate strategy

An exit corridor is identified. Moving down this corridor the agencies responsible for its control are identified. Key personnel are interviewed to establish the areas of responsibility. For a given exit scenario the operation of this control with a focus on interagency communication is analyzed.

Section 4. Identify the deliverable

This project will establish a prototype web page that can be adopted and developed by any agency involved in conveying project information to the public.

The result will be a check list that can be used to assigned points to candidate projects towards establish a prioritized project list.

The outcome will be a detailed description of the communications protocols that may have to be in place to establish a viable exit strategy. This description can be used to inform the on-going efforts to make our cities safer.