

June 19, 1989  
0567F/CM/pb

Introduced by Audrey Gruger

Proposed No.: 89-327

MOTION NO. 7562

A MOTION authorizing the executive to issue a request for proposals for phase 1 of the emergency medical services master plan, for an amount not to exceed \$35,000.

WHEREAS, the King County council has authorized and directed the executive to prepare a master plan for emergency medical services, and

WHEREAS, the purpose of the master plan is to improve emergency medical services by identifying and evaluating alternative methods of delivering paramedic services, and

WHEREAS, the master plan will also evaluate EMS service alternatives on the basis of cost-effectiveness, efficiency, and relative performance, and

WHEREAS, the master plan will also identify the factors which contribute to increased calls for services and deteriorating response times, and

WHEREAS, the council has approved the executive's master plan proposal, and

WHEREAS, the council shall approve the requests for proposals for both phases of the master plan process;

NOW, THEREFORE, BE IT MOVED by the Council of King County:

A. The county executive is hereby authorized and directed to issue a request for proposals for consultant assistance in the completion of phase 1 of the master plan as outlined in Attachment A, and in accordance with Council Motion No. 7454;

B. The duration of Phase I of the master plan shall not exceed six months;

C. The amount of the consultant assistance for phase 1 shall not exceed \$35,000, provided that the request for proposal herein authorized shall be issued at an amount not to exceed \$30,000, and

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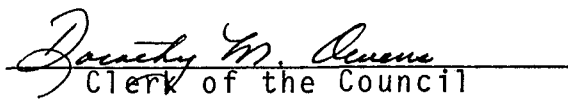
D. In the event that \$30,000 shall not prove sufficient to fund the completion of phase 1 of the master plan, the Executive is authorized to increase the amount provided for consultant assistance up to, but not exceeding, \$35,000.

PASSED this 19<sup>th</sup> day of June, 1989

KING COUNTY COUNCIL  
KING COUNTY, WASHINGTON

  
Chair

ATTEST:

  
Clerk of the Council

7562

REQUEST FOR PROPOSALS  
FOR  
DEVELOPMENT OF THE  
KING COUNTY EMERGENCY MEDICAL SERVICES MASTER PLAN  
PHASE I

King County Emergency Medical Services Division

Steven Call, Manager

Revised June 14, 1989

REQUEST FOR PROPOSALS  
FOR  
DEVELOPMENT OF THE  
KING COUNTY EMERGENCY MEDICAL SERVICES MASTER PLAN  
PHASE I

I. INVITATION FOR PROPOSALS

A. Introduction

The King County Emergency Medical Services Division invites the submittal of proposals by qualified consultants to develop an Emergency Medical Services (EMS) Master Plan for King County, exclusive of the City of Seattle. The general purposes of the master plan are to examine the current system of delivering emergency medical services, and consider alternative service delivery models in King County the face of increasing demands for service through the year 2000.

A two-phase planning process is proposed to accomplish the objectives of the EMS Master Plan. The development and progression of both phases will be guided by an EMS Steering Committee composed of staff representatives from the Budget Office, the Department of Public Health, the County Council, and emergency medical service providers.

Phase I will determine the factors influencing workload levels and response time, project financial resources, and project workload to the year 2000. Efficiencies and inefficiencies in the current system will be identified. This information will in turn be used to identify no- and low-cost methods of improving the system's performance.

Phase II will identify alternative methods of paramedic\* service delivery, evaluate their effectiveness on the basis of cost and performance standards, and recommend an alternative which will best meet the County's needs.

This request for proposals is limited solely to Phase I of the Master Plan. Approximately \$30,000. is available for the first phase of the process. Consultants are requested to develop proposals indicating the work that could be undertaken within this budget amount.

Parts II, III, and IV below describe the proposal review process and schedule, the rules governing competition and the rating of proposals, and description of factors to be examined.

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\* See Attachment 1 for EMS Definitions and Terminology

Part IV details the project, and responsibilities of the EMS Division and the consultant. Part V details the reporting, coordinating, and presentation requirements for the consultant. Part VI set out the conditions of project acceptance, project milestones, and payment schedule.

The completed proposal along with all requested supporting documents should be sent to :

Steven Call, Manager  
 King County Emergency Medical Services Division  
 Suite 500, Prefontaine Bldg.  
 110 Prefontained Way South  
 Seattle, WA 98104

## II. PROPOSAL REVIEW PROCESS AND SCHEDULE

### A. Proposal Due Date and Completion Date

A fully-completed proposal must be received no later than 4:30 P.M. on Monday, July 10, 1989. Proposals received after that date will not be accepted, and will be ineligible for consideration.

The consultant is expected to be available to begin work on August 15, 1989, and to complete work by December 31, 1989. A written final report will be delivered to the Chairman, EMS Masterplan Steering Committee, and the Manager, King County EMS Division by December 31, 1989.

### B. Project Schedule (July - December 1989) and Written Reports

The consultant is expected to follow the general order of analysis from Element 1 through Element 4. It is recognized, however, that development of each element may not proceed in such an orderly fashion, since it may be more practical to do some aspects of several elements earlier or later in the Master Plan development. Initial findings in one element may be modified by results obtained in an element done later. Written reports on each element will thus be considered preliminary, with results possibly subject to modification, if necessary, in the Final Report.

July 10 : Pre-bid conference

July 28: Proposals due

Aug. 14: Phase 1 Begins

Sept. 15: Consultant to submit a preliminary written and oral progress report to the Steering Committee, Executive, and Council by Sept. 15, 1989 summarizing the consultant's activities to date and projecting a completion date for Phase I.

- Oct. 1: Preliminary written and oral report on Element 1 due (see p. 7 below ).
- Oct. 30: Preliminary written and oral report on Element 2 and 3 due (see pp.8-9 below).
- Nov. 24: Preliminary written and oral report on Element 4 ( see p. 9 below).
- Dec. 15: Submittal of final report draft, and oral presentation to steering committee for review and approval.
- Dec. 31: Completed report due.

### III. RULES OF COMPETITION, RATING PROCEDURE, AND PROPOSAL FORMAT

#### A. Competitive Basis for Review

Proposals submitted in response to this Request for Proposals will be evaluated, and the successful proposal chosen, on three bases:

1. All proposals submitted will be evaluated by a review panel made up of representatives from the Seattle-King County Department of Public Health, the Budget Office, and the King County Council.
2. Selection will be based on the following criteria and weighting:
  - 25%-- Quality and responsiveness of proposal in addressing the requirements of the analysis.
  - 25%-- Experience of project team in undertaking similar projects, and demonstrated ability to complete the analysis within time and budget constraints.
  - 30%-- Methodological effectiveness of technical approach in achieving project goals.
  - 20%-- Cost as related to proposed level of effort and elements of the proposal.
3. Interviews by the review team will be held with the highest ranked proposers. After an oral presentation, a series of questions will be asked of each proposer. Final selection will be made after this interview process.

B. Proposal Format:

1. Proposals should contain a detailed description of the approach and proposed methodology to achieve each element. Consultants should use a step/task format tied to a proposed schedule for completion of each task.
2. Detailed cost breakdowns must be provided, including management and overhead costs and the estimated person hours and hourly rates to complete each of the Elements. Proposals should also include a not-to-exceed price for the total project.
3. It is the consultant's responsibility to fully define any anticipated use of County personnel on this project.
4. Proposals should include descriptions of the previous experience and qualifications of all personnel, including sub-consultants, who will work on the project. Any substitutions by the consultant in personnel to be used in the project will be subject to the approval of the Project Manager.

C. Public Access to Submitted Proposals

Public access to submitted proposals and supporting material shall be allowed following receipt of all proposal materials by interested agencies, and after the closing date of July 28, 1989. No proposals will be released prior to the closing date. Copies of proposals will be provided only upon written request to the EMS Division Manager, and a record of all requests will be made available to the applicant agency whose proposal is requested.

**PART IV: DESCRIPTION OF PROJECT**

This section of the Request for Proposal package contains the following materials which are relevant to the development of the proposal by the consultant.

- A. Background Information
- B. Summary of Scope of Services
- C. Scope of Services
  - Element 1: Determine factors influencing workload, response time and other aspects of EMS.
  - Element 2: Develop forecasting model and project responses and response times to the year 2000.
  - Element 3: Analyze and project financial resources for EMS.
  - Element 4: Review current delivery system and performance standards and recommend short-term no-cost and low-cost improvements.
- D. Project Description; Responsibilities of EMS Division and products

These items are detailed below.

A. Background Information

In March 1988, the King County Executive submitted a report entitled "Evaluation of Paramedic Service Areas in King County, Washington" to the King County Council. The principal themes of this report were, first, that significant increases in both paramedic responses and response times have occurred within the past five years, especially in northeast King County.

Second, these increases have made it increasingly difficult to provide paramedic services within the ten-minute average response time standard required in King County. This response time has been shown to be closely linked to survival from critical emergencies.

Third, the report showed that increasing demand for paramedic services could not be accommodated or response times maintained by simply redeploying existing paramedic units. The report included an analysis of the operational and financial effects of adding a ninth paramedic unit, and determined where this unit should be deployed. The County Executive recommended that a ninth paramedic unit be added, and located in the City of Redmond. The County Council approved this recommendation for an additional paramedic unit in the Redmond area in June 1988 (Motion 7214).

However, the Council's review also raised additional longer-term issues concerning whether or not the county can afford to continue, or whether it should continue, the present practice of responding to increases in demand for service by adding additional units. It is not known how many additional paramedic units might be needed, nor what factors are reliable long-term predictors of paramedic services.

The Council noted that King County has reached the current statutory maximum property tax levy (\$.25 per \$1000 of assessed property value), and that funding for additional paramedic units may be inadequate without a change in the distribution of existing revenue, or an increase in the authorized levy rate by the state legislature. The Council asked, in effect, if there are lower cost, more efficient alternatives to the current EMS system? In addition to approving the ninth paramedic unit, the Council also requested the Executive to examine alternative methods of providing paramedic services and to develop and submit for Council approval a paramedic service delivery master plan.



**B. Summary of Scope of Work:**

The consultant shall develop and gather data, perform appropriate analyses, and submit a report to the King County Executive and Council which:

- 1: Determine factors influencing workload, response time and performance standards.
- 2: Develop forecasting model utilizing factors predictive of workload and response times and project responses and response times to the year 2000.
- 3: Analyze and project financial resources for EMS through 1997, the last year of the 1992-1997 EMS levy period.
- 4: Review current delivery system and performance standards and recommend short-term no-cost and low-cost improvements in areas of inefficiency.

Phase I is to be completed by the consultant within 6 months of awarding a contract. Additionally, within 30 days of contract award the consultant is to submit a progress report to the Steering Committee, Executive, and Council summarizing the consultant's activities to date and projecting a completion date for Phase I.

**C. SCOPE OF SERVICES:**

Element 1: Determine demographic and program factors influencing workload, response times, performance standards and other aspects of emergency medical services.

1. Identification, definition and description of the interrelationships of workload (to include emergency responses and all related program/personnel duties), response times, resources, and performance standards.
2. Describe and define workload for paramedic units, including both emergency response and other non-emergency related tasks necessary for the provision of services; discuss the variability of workload by time of day, day of week, and season; identify the frequency of demand and its impact on the availability of resources; make recommendations for redundancy in response capability.
3. Describe and define response time standards and their importance as indicators of system performance; describe the relationship between workload and response time for both basic and advanced life support services.
4. Describe performance standards level of service (including staffing and training levels) and response time, and discuss their relationship to workload.

5. **Responsibilities:** The EMS Division shall be responsible for providing the consultant with current performance standards and supporting data used in their development; data describing actual performance (workload, response times, etc.) in relation to those standards for all providers; other data as is available from the EMS Division's data base. The Division will assist the consultant in securing additional data from other agencies as appropriate. The Division will also assist the consultant in reviewing industry standards to determine the relative position of the King County EMS system to other EMS systems in the United States.
6. **Product:** A written report presenting the information in Element 1, along with recommendations for changes to current standards. Recommendations for changing performance standards should identify whether or not they will result in improvements or a decline in the quality of patient care.

Element 2: Develop forecasting model utilizing factors predictive of workload and response times and project responses and response times to the year 2000.

**Description:** The County and other EMS providers need information on volume projections for basic and advanced life support services divided by basic life support provider service area. The projections can then be used to assess the effectiveness and efficiency of various service delivery models.

1. The consultant should analyze historical trends in the demand for emergency medical services to determine which factors have lead to the significant increases in demand experienced by the system in the past ten years and determine if these trends will continue or change through the year 2000. In identifying the demographic, geographic and other factors driving the demand for EMS services, the consultant should use the best available projections for growth in King County to develop low, medium and high projections for demand for EMS services.
2. **Responsibilities:** The consultant shall be responsible for the development of the projection model. The EMS Division shall provide the consultant with service data including patient age, sex, type of injury or illness, incident location (by fire department jurisdiction and in some areas by geo-code cell(s)), mechanism of injury, severity, how transported and by what means, destination, response time, out-of-service time. Interviews with EMS Division staff and other EMS providers will be necessary in order to determine current practices and interpretations of existing policies.

3. **Product:** A service projection model and written report describing service projections for 1990 through 2000. Low, medium, and high service projections should be developed, based upon documented assumptions. The projections should identify peaking of fluctuating factors, should obtain averages for each of the first three years and annual averages thereafter. The model should be verified using backcasting methods and the error/confidence range identified. A model should be developed for existing paramedic service areas or other subregional areas by type of service (basic and advanced life support services).

Element 3: Analyze and project financial resources for EMS through 1997, the last year of the 1992-1997 EMS levy period.

1. **Description:** Identify and project the availability of financial resources to support the provision of emergency medical services. Generally, EMS services are financed by a combination of a dedicated EMS property tax levy and the general tax revenues of the different providers, including King County, cities, and fire protection districts.
2. **Responsibilities:** The consultant shall be responsible for developing revenue projections for EMS property tax assuming the County continues to levy the maximum permitted under current State law of \$0.25 per thousand of assessed valuation. The EMS Division will provide the consultant with detailed descriptions and data concerning the funding for basic and advanced life support services, and for the EMS Division "core programs." The EMS Division will assist the consultant with accessing information for the Department of Assessments as may be necessary, and will share its financial plans and projections and methodology. The EMS Division will assist the consultant to secure additional information from other providers of EMS services.
3. **Product:** A written report presenting the information described above. Low, medium and high financial projections should be developed, based upon clearly documented assumptions.

Element 4: Review current delivery system and performance standards and recommend short-term no-cost and low-cost improvements in areas of inefficiency.

1. **Description:** Identify inefficient and efficient areas of the current service delivery system for basic and advanced life support services, especially as it relates to training of personnel, staffing patterns, workload, dispatch triaging to determine the appropriate level of response, the deployment of advanced life support units, and the number and response boundaries of said units under current configurations. Recommend short term no-cost and low-cost methods of addressing these inefficiencies.

2. **Responsibilities:** The EMS Division will assist the consultant in analyzing the current service delivery system for both basic and advanced life support services. Interviews with other providers will be necessary to address this element. The EMS Division will assist the consultant in arranging such interviews.
3. **Product:** A written report presenting the information and analyses identifying deficiencies and efficiencies in the current service delivery model. The report should document rationale for characterizing different elements of the system as either inefficient or efficient. The report should make recommendations concerning short-term changes at no- or low-cost that will improve efficiency; identify inefficiencies that are not amenable to no or low cost changes in the short term and why; identify efficiencies in the current service delivery system that ought to be retained.

The report should also describe how each of the recommended improvements will impact system performance through improvements to workload, response times, costs and such other performance standards as recommended under Element 1 above.

#### PART V: REPORTING, COORDINATION, AND PRESENTATIONS

##### A. Reporting

The consultant will report to the manager of the King County Emergency Medical Services Division, who will function as the Project Manager. The EMS Division staff, the Budget Office staff, and Council Staff will have an opportunity to review and comment on individual analyses and completed Elements before presentation to the Steering Committee. The Project Manager will assist the consultant in contacting key County personnel in order to insure cooperation in a timely manner.

The Project Manager shall be responsible for approving any alterations to the consultant's schedule for delivery of portions of the project.

##### B. Coordination

It is important that the EMS Division, Budget Office, and Council staff be involved with this project, as well as the Steering Committee composed of representatives of EMS providers, the medical community and others.

The consultant will report back to the Steering Committee after the completion of each Element, as determinant by the Project Manager, in order to obtain comments about proposed drafts.

C. Presentations

The consultant will also assist the Project Manager in keeping the Executive, County Council, Steering Committee and others informed of progress on this project, including participating in presentations. In addition to the written reports required under section IIB above (page 3), the consultant must also be available if needed for meetings and oral presentations as listed below:

Biweekly meetings with the EMS Division Manager

5 meetings and oral presentations when progress report, reports when written reports on element 1, 2 and 3, 4, and final report are submitted.

1 briefing meeting with the County Executive and the Seattle-King County Health Department Director.

1 oral presentation to King County Council.

4. The sharing of draft reports with the Division Manager is strongly encouraged. Approval and sign-off by the Project Manager will be required on products prepared during the project.

**PART VI: CONDITIONS OF PROJECT ACCEPTANCE AND MILESTONES**

A. The Project Manager will accept the project as completed when the consultant has demonstrated completion of the scope of work as agreed to as part of the executed contract for services, and the Project Manager has approved each stage of the project in accordance with the Scope of Services.

2. The Project Manager has the right to reject and/or request revisions to the work at the various sign-off points throughout the project.

3. Project Milestones and Payment Schedule:

Oct. 1, 1989:	Written Report on Element 1 Due. 20% of contract amount paid on acceptance.
Oct 31, 1989:	Written Report on Element 2 and 3 Due. 40 % of contract amount paid on acceptance.
Nov. 22, 1989:	Written report on Element 4 Due. 20 % of contract amount paid on acceptance.
Dec. 15, 1989:	Final Report Draft due to Steering Committee.
Dec. 29, 1989:	Final Report Due. Final 20% of contract amount paid on acceptance of final report.

## ATTACHMENT 1

## EMERGENCY MEDICAL SERVICES DEFINITIONS AND TERMINOLOGY

**BASIC LIFE SUPPORT SERVICES (BLSS):**

Emergency medical care provided by EMTs, including cardiopulmonary resuscitation (CPR), airway management and oxygen therapy, stabilization and splinting of broken bones, control of bleeding, and general patient care.

**EMERGENCY MEDICAL TECHNICIAN (EMT):**

Full-time or volunteer fire fighter personnel, or private ambulance attendants, who have received 110 hours of training and are certified by Washington State to provide basic life support services in a medical emergency. Fire fighter EMTs provide the first response to a medical emergency, and arrive in an aid unit or fire engine. Fire fighter EMTs are dispatched to every call for emergency medical assistance in King County.

Some EMTs have received additional training in defibrillation (electric shocks delivered to patients with a specific type of fatal heart rhythm), allowing them to provide early care to cardiac arrest patients.

Ambulance EMTs may provide hospital transport to patients not transported by the EMS system, but do not constitute part of the first response system.

**ADVANCED LIFE SUPPORT SERVICES (ALSS):**

Emergency medical care provided by paramedics, including defibrillation (electric shock used in cases of cardiac arrest), airway and respiratory control by means of endotracheal intubation, and use of emergency medications.

**PARAMEDIC:**

Personnel receiving over 2000 hours of rigorous training and certified to provide advanced life support techniques, including defibrillation, airway and respiratory control, and the use of emergency medications. All paramedic personnel in King County must receive training through Harborview Medical Center. Paramedic units are dispatched simultaneously with aid units whenever serious accidents, injuries, or acute illnesses occur, and transport medically unstable patients to the hospital.

There are currently eight paramedic units in operation in King County, with a ninth scheduled to begin operation in September 1989.

**RESPONSE TIME AND RESPONSE TIME STANDARDS:**

Response time is the time interval between the receipt of the call for emergency medical assistance by the dispatcher and the arrival of the emergency medical unit at the scene.

King County has established response time standards for both BLS and ALS operations. BLSS (EMT) providers must maintain a five minute average response time to calls in suburban areas, and a six minute average response time to calls in rural area. ALSS (paramedic) providers must maintain a ten-minute average response time to all calls.

**LAYERED RESPONSE SYSTEM:**

King County has a layered EMS response system made up of a countywide emergency 911 dispatch system, EMT units from 37 fire departments, 9 paramedic units, and 8 base hospitals. EMT units are dispatched to every request for emergency medical assistance, with paramedics dispatched to acute and life-threatening emergencies. Paramedics maintain radio contact with physicians in base hospital emergency departments. Patients may be transported to other hospitals if feasible.

In addition to the response system itself, there are extensive programs for teaching cardiopulmonary resuscitation (CPR) to school children, King County employees, citizens, and the families of high risk patients.

RFP.WPS