SYSTEM TIMING AND ANALYSIS (CONTINUED)

A WRITTEN REPORT SHALL BE PROVIDED DOCUMENTING, AT A MINIMUM, THE DATE OF TRAVEL TIME STUDY, DAY OF WEEK, TIME OF DAY, TOTAL TIME OF TRAVEL AND TOTAL TIME THE VEHICLE WAS STOPPED FOR EACH TRIP.

IN ADDITION, THE SYSTEMS ENGINEER OR TECHNICIAN SHALL CONDUCT THESE FOUR (4) SEPARATE SETS OF TRAVEL TIME STUDIES FOR EACH OF THE FOLLOWING FIELD CONDITIONS:

I. PRIOR TO THE BEGINNING OF CONSTRUCTION, WITH THE EXISTING SIGNAL SYSTEM IN OPERATION (NO LANE CLOSURES SHALL BE IN EFFECT DURING THIS ANALYSIS).

II. PRIOR TO IMPLEMENTING THE TRAFFIC RESPONSIVE MODE, WHILE THE NEW TRAFFIC SIGNAL SYSTEM IS OPERATING UNDER THE "TIME OF DAY" MODE (AS IS SHOWN IN THE PLANS).

III. AFTER THE SYSTEM(S) IS PLACED IN THE TRAFFIC RESPONSIVE MODE.

IV. AFTER THE SYSTEM OPERATION MEETING AND FINAL SYSTEM ADJUSTMENTS ARE MADE.

THE REPORTS PROVIDED FROM EACH OF THE FOUR FIELD CONDITIONS FOR WHICH SYSTEM TRAVEL TIME STUDIES ARE PREPARED SHALL BE USED AS ONE MEANS OF MEASURING THE EFFICIENCY OF THE NEW SYSTEM.

E. DRAFT SYSTEM SUMMARY REPORT:

A DRAFT SYSTEM SUMMARY REPORT SHALL BE PREPARED AFTER TRAVEL TIME STUDIES FOR THE FIRST THREE FIELD CONDITIONS ARE PERFORMED (ITEMS I, II AND III OUTLINED IN PART D). TWO (2) COPIES EACH SHALL BE SUBMITTED TO THE ENGINEER AND TO THE TRAFFIC SECTION OF THE DISTRICT 12 HIGHWAY MANAGEMENT OFFICE FOR EVALUATION AND TO REVIEW THE SYSTEM PROGRAMMING, OPERATION AND EFFICIENCY.

THE REPORT SHALL SUMMARIZE THE SIGNAL PROGRESSION AND TIMING PROGRAMS THAT WERE ENTERED INTO THE SYSTEM. THE REPORT SHALL ALSO INCLUDE A COPY OF THE SYSTEMS LOG AFTER OPERATING IN THE TRAFFIC RESPONSIVE MODE TO VERIFY THE NUMBER OF PROGRAMS USED THROUGHOUT THE DAY AS WELL AS THE FREQUENCY OF PROGRAM CHANGES. A MINIMUM OF AT LEAST FOUR DAYS OF SYSTEMS LOGS SHALL BE PROVIDED AND THREE OF THE FOUR LOGS SHALL BE LIMITED TO THE WEEKDAYS OF MONDAY THROUGH FRIDAY; THE FOURTH LOG SHALL BE ON A SUNDAY. COPIES OF ALL DATA AND ANALYSIS CALCULATIONS FOR THE SYSTEM TIMING SHALL BE INCLUDED IN THE REPORT. THE DRAFT SYSTEM SUMMARY REPORT SHALL INCLUDE AN EVALUATION OF THE SYSTEM OPERATION, EFFICIENCY AND PERFORMANCE AND COPIES OF ALL TRAVEL TIME STUDY DATA.

F. SYSTEM OPERATION MEETING AND FINAL SYSTEM SUMMARY REPORT:

AFTER THE DRAFT SYSTEM SUMMARY REPORT HAS BEEN SUBMITTED, THE ENGINEER WILL SCHEDULE A MEETING WHICH WILL INCLUDE THE SYSTEMS ENGINEER OR TECHNICIAN, THE CONTRACTOR, THE ENGINEER AND REPRESENTATIVE(S) OF THE DISTRICT HIGHWAY MANAGEMENT OFFICE TO DISCUSS THE OPERATION OF THE TRAFFIC RESPONSIVE "CLOSED LOOP" SIGNAL SYSTEM. THIS MEETING WILL OCCUR WITHIN FOUR (4) WEEKS AFTER THE DRAFT SYSTEM SUMMARY REPORT HAS BEEN SUBMITTED TO THE ENGINEER.

THE PURPOSE OF THIS MEETING IS TO DISCUSS THE OPERATION OF THE TRAFFIC RESPONSIVE CLOSED LOOP SIGNAL SYSTEM CONSTRUCTED AND PROGRAMMED UNDER THIS PROJECT AND TO RECEIVE COMMENTS AND RECOMMENDATIONS FROM THE ENGINEER AND/OR THE HIGHWAY MANAGEMENT OFFICE REGARDING POTENTIAL MODIFICATIONS TO THE OPERATION OF THE SYSTEM. THE SYSTEMS ENGINEER OR TECHNICIAN WILL ANSWER QUESTIONS REGARDING THE SYSTEM SUMMARY REPORT AS WELL AS THE OPERATION OF THE CLOSED LOOP SYSTEM.

FINAL ADJUSTMENTS TO THE SYSTEM SHALL BE MADE AS DIRECTED BY THE ENGINEER TO ADDRESS ANY CONCERNS WHICH ARE DISCUSSED AT THIS MEETING. THE FINAL TRAVEL TIME STUDY SHALL BE PERFORMED PRIOR TO SUBMITTING THE FINAL REPORT. ONE (1) COPY OF A FINAL SYSTEM SUMMARY REPORT SHALL BE SUBMITTED TO THE ENGINEER AND ONE (1) COPY SHALL BE SUBMITTED TO THE HIGHWAY MANAGEMENT OFFICE FOR REVIEW AND APPROVAL. THE FINAL REPORT SHALL INCLUDE ANY REVISIONS TO THE DRAFT REPORT THAT ARE REQUIRED AS A RESULT OF THE SYSTEM OPERATION MEETING.

G. PAYMENT:

THE COST OF THIS WORK, INCLUDING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS AND OTHER INCIDENTALS NECESSARY TO PERFORM THE WORK AS OUTLINED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID EACH FOR ITEM 633 - CONTROLLER, MASTER, TRAFFIC RESPONSIVE, AS PER PLAN.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 90 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLERS AND ASSOCIATED EQUIPMENT, DETECTOR UNITS AND INTERCONNECT ITEMS, MASTER CONTROLLER EQUIPMENT AND CENTRAL OFFICE MONITOR.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FORGOING ITEMS SHALL BE TURNED OVER TO THE ENGINEER FOLLOWING THE ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

CALCULATED ACB
CHECKED BJK

TRAFFIC SIGNAL
GENERAL NOTES

LAK-44-0.01