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NAVAL FACILITIES ENGINEERING COMMAND  
GUIDE PERFORMANCE WORK STATEMENT (GPWS)  
FOR  
SURFACED AREAS MAINTENANCE SERVICES  
APRIL 1993

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USER'S GUIDE  
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I. INTRODUCTION

A. Purpose. This NAVFAC Guide Performance Work Statement (GPWS) has been written to provide assistance in preparing facilities support contracts to procure Surfaced Areas Maintenance Services. Contracts for such services may be a continuing contracting effort or conversion of services from in-house to contract performance under the Commercial Activities (CA) program. This NAVFAC GPWS may be used in either application. This GPWS Package consists of a User's Guide; guide contract sections B, C, and J in the Uniform Contract Format; and a Quality Assurance (QA) Guide.

1. NAVFAC manual MO-327, *Facility Support Contract Quality Management Manual*, provides extensive information on the preparation of NAVFAC facilities support contracts, from guidance on acquisition planning through the entire PWS and surveillance program development process. This User's Guide is designed to supplement and to be used in conjunction with the NAVFAC MO-327 in developing a PWS for surfaced areas maintenance services. It provides specific guidance on developing and tailoring this GPWS, special items which must be considered if the specification is being written in conjunction with a CA program study, and general guidance on required pre-award actions. Additional guidance on implementing CA program requirements can be found in the Supplement to OMB Circular A-76 and in OPNAVINST 4860.7B.

2. Sections B, C, and J provide suggested formats for displaying contract line (bid) items, technical specifications which the user may tailor to site specific needs, and attachments which provide supplemental information, historical data, etc.

3. The QA guide is designed to provide the framework for development of a comprehensive contract surveillance program. The user should modify and expand upon the sample QA plans provided as the GPWS is tailored.

4. This GPWS does not establish or provide NAVFAC procurement guidance or policy. Such guidance and policy may be found in the NAVFAC P-68, *Contracting Manual*.

B. Function Definition. For purposes of this GPWS, surfaced areas maintenance is defined to include all labor, transportation, equipment, materials, supplies, management, coordination, and supervision required to maintain and repair surfaced areas and other specific ground structures, such as drainage ditches. The term "surfaced areas" includes all pavements and miscellaneous or stabilized (other than grass) areas used for vehicular, aircraft, or pedestrian traffic (such as roads, streets, service drives, walks, parking areas, open storage, and airfield paved areas), and includes base and sub-base. Surfaced areas services include those recurring maintenance, repair, alteration, and related services which the typical activity would need to accomplish either by in-house forces or by contract, and for which the quantity and scope of work can be clearly defined.

1. Under the CA program, surfaced areas maintenance (CA functional code Z993C) is defined by OPNAVINST 4860.7B as including maintenance, repair, and alteration of airfield pavements, roads, walks, parking and open storage areas,

traffic signs and markings, storm sewers, culverts, ditches and bridges; and sweeping and snow removal from streets and airfields.

2. The following surfaced areas related services are excluded from this GPWS due to their inclusion in other GPWSs. These GPWSs are or will be available from each of the NAVFACENGCOM Engineering Field Divisions (EFDs). Since most NAVFAC GPWSs are written in the same format, the technical requirements of Sections C and J of this GPWS may be easily combined with those of other GPWSs to produce whatever combination of services the user may require.

a. Cleaning of unpaved ditches is included in the NAVFAC GPWS for Grounds Maintenance Services.

b. Herbicide treatment services are included in the NAVFAC GPWSs for Pest Control Services and Grounds Maintenance Services.

c. Snow and ice removal services are included in the NAVFAC GPWS for Transportation Operation and Maintenance Services.

3. The following surfaced areas related services are also excluded from this GPWS for the reasons noted below:

a. Major repairs and alterations, such as pavement overlays, parking lot and road construction, etc., are not included since such services are not considered to be within the scope of a maintenance and repair contract. Also, services of these types can normally be more economically provided by separate indefinite quantity or one time construction contract.

b. Also excluded from the GPWS are most maintenance management functions. The assumption was made that these functions, such as controlling and scheduling of work requests, receipt of service calls, performance of control inspections and pavement condition surveys, etc., would continue to be performed in-house at most activities.

### C. Responsibilities

1. Experience has shown that the best method of developing a facilities support contract is to involve a number of activity personnel, each having a portion of the knowledge and experience required to put the entire package together. A team of experienced activity personnel should be formed and a team leader appointed. At least one member of the team must be intimately familiar with each of the following areas:

a. Must be familiar with and understand the applicable GPWS(s) and QA Guide(s).

b. Must have a working knowledge of basic contracting procedures.

c. Must have first hand knowledge of the services, and/or equipment/system operations, repairs, and maintenance to be provided by contract.

d. Must be able to identify local needs/requirements that are different from this GPWS and apply specifically to the activity.

2. The following activity personnel are suggested as members of the contract development team.

a. Team Leader. The team leader will be the individual with overall responsibility for development of the contract. This includes the development and tracking of procurement milestones; ensuring that each member of the team understands what specific tasks they are responsible for and when each must be completed; and coordinating the efforts of the individual team members so that the many pieces of the procurement package fall neatly into place.

b. Specification Writer. The specification writer brings to the team technical knowledge of facilities management and a familiarity with specification formats. This will most likely be an engineer or engineering technician at the activity who has had at least some experience in writing facilities support contracts. The use of a planner and estimator (P&E) is also appropriate if one is experienced with writing contract specifications. The writer, regardless of who the person is, should have attended the Civil Engineer Corps Officers School (CECOS) course, Facilities Support Contracts for Functional Managers. Assistance and guidance may be requested from the geographical NAVFACENGCOR Engineering Field Division (EFD). The EFD may offer courses on PWS development, quality assurance, and other related subjects that may be of benefit to the specification writer.

c. Functional Manager/Customer. The functional manager is the technical representative of the team who is most familiar with the function to be contracted. Early in the tailoring process the Facilities Management Engineering Director or other surfaced areas maintenance expert must determine the total scope of the services required, develop detailed inventories of the facilities to be maintained, collect historical information on work quantities, and identify the specific needs of the activity which may differ from this GPWS. Customer representatives, such as the Air Operations Officer, should also be contacted, if appropriate, since they should be able to identify any specific needs or concerns.

d. Facilities Support Contract Manager. If there is an existing surfaced areas maintenance contract, the Facilities Support Contract Manager (FSCM) or Quality Assurance Evaluator (QAE) should be able to provide lessons learned and other information pertinent to the new specification. The FSCM/QAE will also be responsible for preparing required Quality Assurance Plans (see Quality Assurance Guide) and for ensuring that services are specified in such a way as to be inspectable.

e. Contract Specialist. The Contract Specialist provides overall contractual guidance in the preparation of the specification and the overall solicitation. This person will work with the writer in the preparation of sections B, C, and J, and will prepare the majority of the clauses in sections E, F, G, H, I, K, L, and M of the solicitation. The contract specialist will also ensure that labor laws are properly applied, competition requirements are met, fiscal policies are adhered to, the solicitation is properly advertised, etc.

f. CA Program Manager. If the specification is being prepared under the CA program, the CA Program Manager provides overall guidance on the CA program, and will ensure that the specification is developed in conjunction with required most efficient organization and management studies.

g. Engineering. In preparing the inventory of facilities it is necessary to know the amount and type of airfield pavements; roads; parking areas and open storage areas; storm sewers; ditches; and culverts and bridges. If this information is not readily available from engineering drawings, inventories, and property records, the Specification Writer must work with the functional manager and engineering to develop the required data.

3. The completed specification should be reviewed by customer and functional manager representatives and the Facilities Management Engineering Director, as required. Consult appropriate EFD instructions to determine if EFD review/approval is required prior to solicitation.

II. GPWS DEVELOPMENT AND USER CONSIDERATIONS. This section of the User's Guide discusses certain assumptions which were made and special items that were considered during the development of the Surfaced Areas Maintenance Services GPWS, and provides general information and considerations that the user should be aware of during the tailoring process.

A. Development of the GPWS. In developing this GPWS a functional analysis, as described in NAVFAC MO-327, was performed to identify each of the major subfunctions for surfaced areas maintenance. NAVFAC Manual MO-102, *Maintenance and Repair of Surfaced Areas*, provided information on suggested subfunctions. Each of these subfunctions was carefully reviewed to determine which could realistically be contracted for. Once a final list was developed, each subfunction was further subdivided to develop basic work requirements and standards of performance. Once all of the basic work requirements were identified for each subfunction, a performance requirements summary (PRS) table was developed and the requirements were put into narrative form.

B. GPWS User Considerations. The clauses and provisions of this GPWS are arranged in the uniform contract format as required by the Federal Acquisition Regulation (FAR). The sections to which they are assigned shall not be changed.

1. This GPWS contains sections B (Supplies or Services and Prices/Costs), C (Description/Specifications/Work Statement), and J (List of Attachments) only. These sections contain information and clauses peculiar to the technical services required, while Sections D, E, F, G, H, I, K, L, and M contain contract clauses and provisions more closely related to administrative and contractual requirements. Since the latter group will generally be the same in the majority of NAVFAC contracts, their inclusion in each GPWS would be unnecessary duplication. These clauses are included in the Uniform Contract Format Guide (UCFG) published by NAVFAC. The UCFG should be available at each of the geographical EFDs and at NAVFAC contracting offices, and should be made available to specification writers as required.

2. FAR clauses and provisions may be added or deleted as required by the FAR for specific functions, dollar limitations, bonding, small businesses, etc. They may not be altered unless specifically authorized by the FAR. Most of the clauses in sections I and L, other than those requiring tailoring (i.e. blanks to be completed), may be included by reference. All other FAR clauses and provisions shall be included in full text. Procurement offices shall make available to bidders the full text of all clauses incorporated by reference upon request.

3. Clause titles in the UCFG which include the designation "(NAVFAC)" followed by a date in parenthesis, are NAVFAC clauses which may not be altered

without NAVFAC approval. All other non-FAR and non-NAVFAC clauses and provisions in the UCFG (other than those in Sections C and J) should be used substantially as shown or deleted if not applicable to the solicitation. Extensive deliverable performance requirements should not be added to these clauses, but should be included in Section C.

#### 4. Technical Specification

a. Section C, which describes the services to be provided, should be a performance specification to the maximum extent possible. That is, over defining the Contractor's responsibilities in terms of methods or procedures should be avoided in writing the technical specifications since we hope to purchase not only the Contractor's labor, but also his/her expertise in the services to be provided and management of those services. A performance oriented specification should minimize the use of words describing "how to", but should describe work outputs required as explicitly as possible while leaving the Contractor latitude to manage his/her own work force and choose his/her own methods for accomplishing the work.

b. On the other hand, the specification must provide enough information to clearly and precisely define the magnitude (number of services we want to buy) and quality of each of the services to be provided, as well as the scope or limit of each. This is accomplished in this GPWS by specifying, in addition to the desired outputs, schedules of accomplishment and/or specific time limitations in which all services must be completed; listing mandatory operating procedures or steps that the Contractor must follow for some services; and providing historical data on the magnitude of services provided under previous contracts or by in-house forces. Such information will only slightly restrict the Contractor's latitude in managing his/her workforce, but will help ensure all bidders clearly visualize the magnitude of effort which will be required to provide the clearly defined scope of work. Typically this will result in more accurate/realistic Contractor bids, make payment deductions for unsatisfactorily performed or nonperformed work easier to calculate, and reduce the number of contract administration problems.

5. As you use this GPWS you will find in many instances there will be a "NOTE TO THE SPECIFICATION WRITER". These notes provide the user with additional information and/or advise the user to select the appropriate clause, insert additional information, or delete the clause in its entirety. There are also many areas within the text of the GPWS where notes indicate that additional information must be provided; i.e. start times, dates, quantities, etc. These notes will always be enclosed by the symbol "!". All that is required is to replace the note with the required information.

III. TAILORING THE GPWS. The NAVFAC GPWS for Surfaced Areas Maintenance Services is not intended to fit the requirements of a specific activity, but rather, is to serve as a model to be tailored by activities in preparing their specific PWS. The first step in tailoring a GPWS to a specific case is for the user to become intimately familiar with the GPWS and its User's Guide. The user must know what is, and is not, included in the GPWS and what was intended before any required modifications may be assessed. The PWS is the instrument that lays out the functional and technical requirements and ultimately becomes part of a contract. The User's Guide provides the user with information concerning the GPWS and provides instructions on tailoring. Users should not assume that the GPWS can be "plugged" into their application with little or no effort. A detailed analysis of the activity's requirements will be required.

## A. Getting Started

1. Scope of Work. The first step in tailoring this GPWS to a specific user activity must be to determine one of the following:

a. Are the requirements currently contracted, and will this be a continuation of the contracted services, or a consolidation of several contracts? If this is the case, this GPWS may be tailored to accomplish any desired scope of work and level of performance.

b. Are the requirements to be included in the PWS subject to a CA cost comparison study under OMB Circular A-76? If this is the case, it is mandatory that the scope of work and level of performance specified be equivalent to the level of effort that can be achieved by the Most Efficient Organization (MEO) if the function is retained in-house. Additional information on tailoring of this GPWS for a CA program study is included in paragraph IV of this User's Guide.

2. Job Analysis. The next step should be a thorough review of Chapters 2 and 3 of NAVFAC MO-327. These two chapters outline in some detail how to perform a job analysis to determine the specific subfunctions to be contracted (including specific work requirements and standards of performance) and how to use the job analysis information and data collected to actually write the PWS.

a. A number of questions will be identified during the job analysis, including "what type of surfaced areas maintenance services will be required?" Several factors will need to be considered when answering this question, including:

(1) The age and condition of the surfaced areas to be maintained.

(2) The types of services expected or historically required. That is, are relatively minor repair requirements such as minor pot hole patching and traffic sign replacement expected; or will more significant repairs such as large patches in concrete pavement or multiple pot hole filling be needed? Will new work requirements (alterations and construction) such as installation of new traffic signs be required, or will services be limited to maintenance and repair requirements?

(3) The quantity of services historically required. That is, are the number of maintenance and repair requirements somewhat predictable and consistent from year to year, or do requirements vary significantly from year to year?

(4) Is a stand alone contract being prepared or will surfaced areas maintenance services be included as part of a larger contract, such as for base maintenance services?

(5) Would it be more economical to accomplish some of the expected or identified work requirements by separate fixed-price or indefinite quantity construction contract, rather than as part of a contract that is primarily for maintenance and repair services?

(6) Is in-house labor available to provide some of the expected services?

b. As the job analysis is being performed, the user should compare unique activity requirements with GPWS requirements to determine if any major changes are required, or if some of the questions being identified in the job analysis have already been answered in the GPWS. If major changes are required, the user will need to re-write the affected GPWS section. A thorough job analysis will make the actual tailoring of the GPWS and re-writing of paragraphs relatively easy since all required data will be readily available and the subfunctions to be contracted will be well defined.

B. Contract Line Items. Section B of the contract (Supplies or Services and Prices/Costs) includes contract line items for each of the services included in the contract. The specification writer and contract specialist will develop these line items in conjunction with the technical specifications, the Schedule of Deductions, the PRS table, and other portions of the contract. The sample contract line items shown in Section B of this GPWS are intended to encompass all of the services (contract requirements) to be provided in the GPWS technical specifications. Of course they must be tailored to account for the type of contract selected, contract requirements added or deleted by the user during the job analysis process, the projected start date of contract performance, and other factors including those discussed below.

1. Contract Type. A combination firm fixed-price and indefinite quantity contract is used in this GPWS because it is by far the most common type of contract for surfaced areas maintenance services. However, other contract types may be used depending upon the circumstances. The user should solicit input from the contract specialist or the EFD Contract Department when deciding on the most appropriate contract type. All of the contract requirements in the PWS must be included in either the firm fixed-price or fixed unit price (indefinite quantity) contract line items in Section B.

2. Firm Fixed-Price Contract Requirements. Firm fixed-price contract line (bid) items are bid and payment is made for the total performance of a given contract requirement over a given period of time (usually one month). These contract requirements are either fixed in scope (time, location, frequency, quantity, etc. are known or can be accurately estimated) or adequate historical data is available to allow a reasonable estimate to be made. Because the scope of work is known, the Contractor agrees to perform a given requirement for a total price, and in essence there is one work order. The Contractor performs the work as scheduled and invoices are submitted for the services provided.

a. Examples. Examples of firm fixed-price contract requirements in this GPWS include service call work, drainage systems maintenance, scheduled grading, and scheduled airfield and roadway sweeping. The scope of each of these services is clearly defined in the GPWS technical specifications (Section C) and supporting Attachments in Section J. Fixed-price contract requirements added by the user must also have clearly defined scopes, and the wage rate applicable to each service, either Service Contract or Davis-Bacon, must also be specified.

b. Firm Fixed-Price Contract Line Items. The firm fixed-price contract line items may be displayed in one of three different ways in Section B. The user should contact the contract specialist or EFD if in doubt about which procedure should be used.

(1) Section B of the GPWS illustrates the most common procedure, which is to simply require bidders to provide a single monthly price for the total performance of all the firm fixed-price contract requirements in the contract. In this case the contract must also contain a Schedule of Deductions in Section E, in which the successful bidder will break down the total bid price for each of the fixed-price requirements in the PWS. See paragraph III.D of the User's Guide for additional information on the "SCHEDULE OF DEDUCTIONS" clause.

(2) A slightly different procedure would be to include a limited number of fixed-price subline items, each of which could be broken down by a Schedule of Deductions. Separate fixed-price subline items are particularly appropriate to avoid paying the Contractor for work before it is performed, or for not paying enough for work which has already been performed. This can be a problem for services which occur only periodically during the contract term, such as drainage systems inspections.

(3) A third procedure would be to eliminate the Schedule of Deductions from the contract and provide a detailed Schedule of Firm Fixed-Price Work. Such a schedule would be formatted similarly to the Schedule of Deductions, and bidders would provide separate unit prices for each of the fixed-price requirements in the PWS.

3. Indefinite Quantity Contract Requirements. Indefinite quantity contract requirements are performed on an "as ordered" basis, and a fixed unit price to perform one occurrence or a given quantity of each type of work is bid. Payment for this type of work is based on the unit price bid per unit times the number of units performed. Because each Government order for indefinite quantity work is paid for separately, each and every delivery order must be inspected and accepted as being satisfactorily completed before payment may be made. Two distinct categories of indefinite quantity work are included in this GPWS, unit priced tasks and unit priced labor.

a. Unit Priced Tasks. Bid prices for unit priced tasks include all labor, materials, and equipment for performing a given quantity of work, such as sealing one linear foot of cracked bituminous pavement or removing and replacing a linear foot of 12" reinforced concrete pipe. The unit prices bid are multiplied by an estimated quantity of units to be ordered during the contract term, but only for purposes of bid evaluation, since work will only be paid for as ordered and completed.

b. Unit Priced Labor. This type of indefinite quantity work, which is also referred to as "level of effort work", should be used only in connection with maintenance, repair, and alteration of facilities, and then only when such work cannot be identified in advance in sufficient detail to be included in the firm fixed-price or indefinite quantity - unit priced tasks portions of the contract. The labor hour unit prices bid include all costs to perform the work required, except for material and equipment related costs. The Contractor is reimbursed for the direct cost of materials (except for pre-expended bin materials) and equipment, plus a mark-up (fixed burden rate) to allow for material handling costs.

c. Other Factors. As many indefinite quantity work requirements as possible should be included as unit priced tasks vice as level of effort work since unit priced tasks are easier to understand, easier for Contractors to bid on, the work is easier to order and administer, and material and equipment costs are included in the unit prices bid. Regardless of which of the two types of

indefinite quantity work are used, the estimated quantities provided in the solicitation for bid evaluation must be realistic estimates of the anticipated quantities to be ordered during the contract term.

4. Wage Rate Considerations. While service contract wage rates are always included in service contracts over \$2500, Davis-Bacon wage rates may or may not be required, depending on the type and scope of services. Davis-Bacon wage rates are applicable if more than \$2000 worth of certain services are expected to be performed during the term of the contract. These services include the following:

- Single instances (e.g., service call or indefinite quantity order) of maintenance/repair requiring 32 hours or more to complete are subject to Davis-Bacon wages. Davis-Bacon wages do not apply to such orders that are clearly for maintenance, as would be the case for runway sweeping services, road grading services, drainage system inspection services, and others. These services are always subject to the service contract wages, regardless of the size of the job.
- 200 square feet or more of painting per service call or delivery order is subject to Davis-Bacon wages.
- Construction, alteration, or renovation services are subject to Davis-Bacon wages, regardless of the size of the order.

If Davis-Bacon provisions are included in the contract the user must ensure that the wage rate applicable to each individual contract requirement is clearly delineated. To illustrate this point Section B of this GPWS includes sample contract line items subject to both Service Contract and Davis-Bacon Act wage decisions. Check with the contract specialist if in doubt as to which wage rate applies in specific situations or to specific contract requirements.

5. Separately Priced Options to Extend. The sample contract line items in Section B of this GPWS assume that the initial term (base period) of the contract will be for 12 months. Normally this is the case for surfaced areas maintenance contracts, which may begin at any time during the fiscal year and be funded with funds current in the fiscal year of award. However there are cases, such as when adequate funds are not available, when the initial term could be less than 12 months in length. For example, the initial contract term could be for six months, beginning on 1 April and ending on 30 September. If the initial term will be less than 12 months consider the following.

a. Contract line items 0001, 0002, and 0003 in Section B will need to specify the number of months in the initial contract term and the appropriate proportionate number of units in the Schedule of Indefinite Quantity Work.

b. Additional (separately priced) contract line items (e.g., 0004, 0005, 0006, etc.) will need to be added to Section B to account for at least one full 12 month option period. Additional contract line items may be added for subsequent option periods if desired. Check with the contract specialist for specific requirements.

c. Section C, the technical specifications, must clearly indicate the scope of work for the initial period since the work load can vary significantly from month to month. For example, the specification must state whether two,

one, or none of the required drainage system inspections will be performed during an initial period that is less than 12 months.

d. The "PERFORMANCE PERIOD OF CONTRACT" clause in Section F and the "BASIS FOR AWARD" clause in Section M must be modified accordingly. Check with the contract specialist for specific wording of these clauses and for other changes which may be required.

e. Schedules of Deductions, one for the initial period and one for each of the 12 month option periods, must be included in the contract. Of course the items of work and number of units in the Schedules of Deductions must agree with the firm fixed-price contract line items in Section B and the scopes of work defined in Section C. Paragraph III.D of this User's Guide provides more in depth information on the development of Schedules of Deductions.

6. Other Clauses. Specific clauses included in Section B differ from NAVFAC EFD to EFD. The user must contact the activity's geographical EFD to identify the specific clauses, if any, which may be required.

C. Technical Specifications. The technical specifications, Section C, are the single most important part of a PWS. Within this section the user should add or modify the paragraphs in the GPWS to accommodate the particular services for that activity. The following information is provided for the user's consideration when tailoring the technical specifications.

#### 1. Service Calls

a. Scope. In the GPWS clause "GENERAL REQUIREMENTS AND PROCEDURES FOR SERVICE CALL WORK", service calls are limited in scope to maintenance and repair requirements requiring up to a specified number of labor hours and material dollars to complete.

(1) When determining the estimated labor hour and material dollar limits to insert in this clause the user should look carefully at available historical information to ensure that the limits set are reasonable.

(a) If historically a large percentage (over 90% at most activities) of service call work requires less than eight labor hours for completion, it doesn't make sense to set a high upper limit, such as 40 hours. Similarly, if almost all service calls require less than \$500 in material costs, do not set the upper limit at \$1,000 or more.

(b) The labor hour limit may be set at 32 labor hours or higher only if a Davis-Bacon wage determination(s) and related provisions are included in the contract. The GPWS technical specifications provide a choice of clauses depending on whether the limit will be less than or greater than 32 hours.

(2) Of course there are other ways to define the scope of a service call which the user may want to consider, including the following:

(a) The service call limit may be expressed simply as a total dollar figure for labor and direct material costs, such as \$500. Davis-Bacon wage rates would still apply to any call requiring 32 labor hours or more, as discussed above.

(b) The Government may share in the cost of materials above a certain specified limit. For example, the Contractor's liability for direct materials may be limited to \$250 per service call, with the Government paying for any material costs over this amount. This option should be considered if service calls historically require high material costs relative to labor costs. Of course this approach will also require additional administrative effort to track and reimburse the Contractor for the cost of materials over the specified limit.

b. Work Reception. Since more than likely there will be few service calls for surfaced areas maintenance services at the typical activity, this GPWS is written so that the Government receives and classifies all service calls, both during and after regular working hours. The Government will notify the Contractor by phone that each call has been received and that a work authorization form is available for pick up. Unless surfaced areas maintenance services are included as part of a multi-function contract, it will not be practical or cost effective to require the Contractor to maintain a service call reception desk or to routinely pick up work authorization forms at some predesignated location.

c. Response and Completion

(1) In specifying service call response and completion requirements for service call work the user must consider the nature of the work, the location of the activity, the availability of materials, the geographic distribution of the surfaced areas, and similar factors when determining the specific requirements to be included. Keep in mind that stringent response and completion requirements will increase the cost of the contract, and could result in needless contract administration complications and problems. For example, a completion requirement of three days for a routine service call is not unreasonable, but is probably not practical or necessary either.

(2) Since response to service calls after regular working hours, on weekends, and on holidays can be expensive, activities with few service calls may want to consider having civilian or military personnel respond to and complete emergency and urgent service calls received after regular hours.

d. Urgent Calls. This GPWS includes the service call classification of "urgent" primarily to facilitate incorporation of the surfaced areas GPWS technical specifications into a multi-function PWS, where the urgent classification is commonly found. The user should consider eliminating the urgent classification if surfaced areas maintenance will be included in a stand alone, single function contract, or require that urgent calls be responded to only during regular working hours.

2. Recurring Work. In this GPWS recurring work includes scheduled grading services, maintenance of drainage systems, and scheduled pavement sweeping. This work is included in the firm fixed-price portion of the contract since the scope and frequency/number of occurrences is known for each service. Recurring services added by the user must have clearly defined scopes, similar to the examples included in this GPWS, and must indicate clearly the wage rate applicable to the service, either Service Contract Act, Davis-Bacon Act, or both. See User's Guide paragraph III.B.4 for additional information.

a. Grading of Miscellaneous Surfaces. The user must include frequency and schedule information for all scheduled grading services based on local

weather conditions, use, and condition of miscellaneous surfaces. An accurate inventory of the miscellaneous surfaces, such as roads and streets, parking areas, and open storage areas must also be developed and included in Attachment J-C1. The NAVFAC P-164 and activity's plant account records should provide the information needed to develop this inventory. An activity map showing the location of areas to be maintained would also be beneficial for bidding and administrative purposes. NAVFAC MO-102 provides guidance on maintenance requirements.

b. Drainage Systems. The user must develop an accurate inventory of the drainage systems included in the contract. The NAVFAC P-164 and the activity's plant account records should provide the information needed to develop this inventory. A sample inventory is shown in Attachment J-C1. NAVFAC MO-102 provides guidance on maintenance requirements, which are referenced and/or included in Section C.

c. Pavement Sweeping. This GPWS provides for both airfield and road and parking area sweeping. A description and/or map of the areas to be swept must be included by the user along with frequency and schedule information for all scheduled sweeping requirements. Scheduled sweeping is included in the firm fixed-price portion of the contract while unscheduled sweeping is in the indefinite quantity portion. The following should be considered by the user when tailoring the GPWS sweeping provisions.

(1) Consider equipping the Contractor's airfield sweepers with Government furnished radios so that communications may be maintained with air operations and/or the control tower. Include required administrative procedures and radio maintenance responsibilities. Require sweeper operators to attend training on radio communications.

(2) Specify procedures for the removal/replacement of aircraft arresting gear cables and equipment, if appropriate.

(3) Consider including unscheduled (indefinite quantity) sweeping to allow for unanticipated requirements which occur between scheduled sweepings.

(4) Administrative requirements for any special security passes which may be required for access to aircraft operation or other areas should be addressed.

(5) Specify the location of on base sites for disposal of sweepings, or specify that sweepings must be disposed of off base.

(6) Specify any specific equipment requirements, such as magnetic or all-weather sweepers, and safety markings and lighting.

3. Indefinite Quantity Work. As noted in paragraph III.B.3, two categories of indefinite quantity work items are included in this GPWS, unit priced tasks and unit priced labor.

a. Unit Priced Tasks. The indefinite quantity unit priced tasks included in the GPWS are provided only to illustrate the types of services for which unit priced tasks may be used, and is by no means a complete list. The user should add or delete items as needed to suit the activity's specific needs. Ensure that the scope of work of any added task is clearly defined in the technical specifications.

b. Unit Priced Labor. Procedures for establishing the estimated number of labor hours and material costs required for any particular job are described in the "GENERAL REQUIREMENTS AND PROCEDURES FOR INDEFINITE QUANTITY WORK" clause of Section C. Various estimating guides, such as Engineered Performance Standards (EPS) or standards published by R. S. Means Company, may be used as a basis to determine the estimated number of labor hours required. This GPWS specifies that labor estimates will be based on EPS, since this is the most common estimating system used in facilities support contracts. Should the user choose another estimating standard, appropriate changes must be made to the GPWS technical specifications, historical data, etc.

D. Schedule of Deductions. If used the "SCHEDULE OF DEDUCTIONS" clause in Section E is one of the most important items that the specification writer must consider in tailoring this GPWS, since it directly affects the degree of difficulty required to make payment deductions for unsatisfactory performance and nonperformance of work. The schedule is used if a monthly price or limited number of subline items are included in Section B for performance of the firm fixed-price contract requirements, and should not be used if a detailed Schedule of Firm Fixed-Price Work is included in Section B. Refer to paragraph III.B.2 for additional information on fixed-price contract line items.

1. The Schedule of Deductions requires the Contractor to break down the firm fixed-price portion of the bid for each of the fixed-price contract requirements in the PWS. This information is used in conjunction with the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES" and "ESTIMATING THE PRICE OF NONPERFORMED OR UNSATISFACTORY WORK" clauses (Section E), and the PRS table (Attachment J-E2), in making payment deductions for unsatisfactory performance and nonperformance of firm fixed-price contract requirements. The completed schedule must be provided by the Contractor within 15 calendar days after award of the contract, and the Government retains the right to reject and/or unilaterally establish a schedule if the submitted schedule is materially unbalanced.

2. The user must consider the firm fixed-price services actually included in the technical specifications, the length of the initial contract term, and whether schedules for separately priced option periods will be included when tailoring the two sample schedules provided below, and make needed corresponding changes to the PRS table.

a. In example #1 the services are generally broken down so that, where practical, a unique unit price will be obtained for each service, whereas this is not the case in example #2. Although example #1 is longer and requires more detailed background data to develop, it should be used to the maximum extent possible since the detailed unit prices will make payment deductions more accurate and easier to calculate, and make it easier to ensure that the prices submitted are realistic and balanced. Example #2 should be considered only if the user does not have adequate data on the quantities of work which will be required. Of course portions of each example may also be combined together if desired.

b. For both examples, it is important to ensure the "Quantity" in the base and option periods reflects the number of services to be performed during those periods. For example, if the initial contract term is to begin on 1 April and end 30 September, the user will need to change the quantity from "12" months to "6" months in the base period Schedule of Deductions. If using example #1,

the drainage system inspections required during this six-month period must be determined and the quantity modified accordingly.

EXAMPLE #1  
**SCHEDULE OF DEDUCTIONS FOR BASE PERIOD**  
**(DO NOT SUBMIT SCHEDULE OF DEDUCTIONS WITH BID)**

ITEM NO.	<u>CONTRACT REQUIREMENTS</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL PRICE</u>
1.	Emergency Service Calls (Clause C.8)	12	MONTH	\$ _____	\$ _____
2.	Urgent Service Calls (Clause C.8)	12	MONTH	\$ _____	\$ _____
3.	Routine Service Calls (Clause C.8)	12	MONTH	\$ _____	\$ _____
4.	Scheduled Grading of Miscellaneous Surfaces (Clause C.12)				
	a. Grading Earth Surfaces	4,000	SQ YD	\$ _____	\$ _____
	b. Grading Soil Aggregate Surfaces	330,000	SQ YD	\$ _____	\$ _____
5.	Maintenance of Drainage Systems (Clause C.14)				
	a. Scheduled Inspections				
	(1) Paved Ditches	6.0	MILE	\$ _____	\$ _____
	(2) Drop Inlets	1,200	EACH	\$ _____	\$ _____
	(3) Road and Airfield Culverts (18" - 48" diameter)	100	EACH	\$ _____	\$ _____
	(4) Road and Airfield Culverts (60" - 84" diameter)	30	EACH	\$ _____	\$ _____
	(5) Concrete Box Culverts	6	EACH	\$ _____	\$ _____
	(6) Headwalls (masonry)	140	EACH	\$ _____	\$ _____
	(7) Metal End Sections	120	EACH	\$ _____	\$ _____
	(8) Bridges, Concrete (20' - 40' span)	10	EACH	\$ _____	\$ _____
	b. Unscheduled Inspections				

<u>ITEM NO.</u>	<u>CONTRACT REQUIREMENTS</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL PRICE</u>
	(1) Paved Ditches	12	MONTH	\$_____	\$_____
	(2) Drop Inlets	12	MONTH	\$_____	\$_____
	(3) Road and Airfield Culverts (18" - 48" diameter)	12	MONTH	\$_____	\$_____
	(4) Road and Airfield Culverts (60" - 84" diameter)	12	MONTH	\$_____	\$_____
	(5) Concrete Box Culverts	12	MONTH	\$_____	\$_____
	(6) Headwalls (masonry)	12	MONTH	\$_____	\$_____
	(7) Metal End Sections	12	MONTH	\$_____	\$_____
	(8) Bridges, Concrete (20' - 40' span)	12	MONTH	\$_____	\$_____
6.	Scheduled Airfield Pavement Sweeping (Paragraph C.15.a)	48,000	ACRE	\$_____	\$_____
7.	Scheduled Road, Parking Area, and Open Storage Area Sweeping (Paragraph C.16.b)				
	a. Roads	164	CURB-MILE	\$_____	\$_____
	b. Parking Areas	152,000	SQ YD	\$_____	\$_____
	c. Open Storage Areas	80,000	SQ YD	\$_____	\$_____
				TOTAL =	\$_____
				(Must equal amount bid for contract line item 0001)	

EXAMPLE #2  
**SCHEDULE OF DEDUCTIONS FOR BASE PERIOD**  
**(DO NOT SUBMIT SCHEDULE OF DEDUCTIONS WITH BID)**

<u>ITEM NO.</u>	<u>CONTRACT REQUIREMENTS</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL PRICE</u>
1.	Emergency Service Call Work (Clause C.8)	12	MONTH	\$_____	\$_____
2.	Urgent Service Call Work (Clause C.8)	12	MONTH	\$_____	\$_____

ITEM NO.	CONTRACT REQUIREMENTS	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
3.	Routine Service Call Work (Clause C.8)	12	MONTH	\$_____	\$_____
4.	Scheduled Grading of Miscellaneous Surfaces (Clause C.12)	12	MONTH	\$_____	\$_____
5.	Maintenance of Drainage Systems (Clause C.14)	12	MONTH	\$_____	\$_____
6.	Scheduled Airfield Pavement Sweeping (Paragraph C.15.a)	12	MONTH	\$_____	\$_____
7.	Scheduled Road, Parking Area, and Open Storage Area Sweeping (Paragraph C.16.b)	12	MONTH	\$_____	\$_____
				TOTAL = \$_____	
				(Must equal amount bid for contract line item 0001)	

E. Performance Requirements Summary. As the GPWS is being tailored a PRS Table should be prepared. This table will be included in Section J of the PWS and will be used primarily by the Contracting Officer, in conjunction with the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES", "ESTIMATING THE PRICE OF NONPERFORMED OR UNSATISFACTORY WORK", and "SCHEDULE OF DEDUCTIONS" clauses, in making payment deductions for unsatisfactory performance or nonperformance of contract requirements. Additionally, the table is also very useful in the preparation of QA plans (as discussed in the QA Guide to this GPWS) and the Schedule of Deductions, and to provide the FSCM, QAEs, and customers a convenient overview of services to be provided. A sample PRS Table, which reflects the contract requirements and work requirements of this GPWS, is provided in Attachment J-E2 of the GPWS. Suggested maximum allowable defect rates (MADR) and weights are also shown. The user should modify this table to reflect the tailored PWS's requirements and consideration of the various factors which influence the selection of MADRs and work requirement weights. The NAVFAC MO-327, the NAVFAC RSED (V3.2) implementation guide, and the QA Guide provide guidance on the development of PRS tables, and should be referred to by the user.

F. Reviewing the Tailored PWS. Conflicting contract requirements inevitably lead to last minute bid inquiries, protests, claims, and difficulties in contract administration. As a result, the Government may pay more for required services; does not obtain the services which were intended; and/or spends a great deal more in contract administration effort than would normally be warranted. To avoid such problems, the user should carefully review the tailored PWS to find and eliminate any inconsistencies which may have been created during the tailoring process.

1. One way to eliminate inconsistencies is through the use of a matrix type check, such as that shown below. Such a matrix can prove to be an effective check on the consistency of the contract requirements. By matching

the function with the applicable clause(s), the user can easily review those clauses which apply to a particular function without having to continually scrutinize the entire specification.

2. Another, and probably easier way for activities which have word processing software, is to perform a search on a key word(s). For example, the words "asphalt" or "bituminous" if we wanted to review all contract requirements for bituminous pavement repairs. The software can then search the entire document for those key words, and stop every time it encounters them. In this way the specification writer can check for inconsistencies which may have been overlooked during previous reviews.

EXAMPLE MATRIX CHECK FOR SURFACED AREAS MAINTENANCE SERVICES CONTRACT

SECTION/PARAGRAPH	CONTRACT REQUIREMENT		
	SERVICE CALLS	RECURRING MAINTENANCE	MINOR WORK
B			X
C.2	X	X	X
C.8	X		
C.9		X	
C.10			X
J-C7	X		X
J-E2	X	X	X

IV. COMMERCIAL ACTIVITIES (CA) PROGRAM CONSIDERATIONS. This section of the User's Guide discusses some of the special items which must be considered when using this GPWS to prepare a PWS as part of a CA program study. Included are a number of provisions and changes which must be considered by the user.

A. Scope of Work. The user must remember that the scope of work and standards of performance specified in the PWS must be equivalent to the projected capabilities of the MEO. This may require some additional tailoring of the GPWS to ensure that all of the services to be performed by the MEO are included and clearly described in the PWS.

B. Separately Priced Options to Extend. OMB Circular A-76 requires in-house and Contractor bids to be evaluated on at least a three year basis whenever funding can cross fiscal years, as in the case of surfaced areas maintenance services. This means that Section B must contain contract line items for a base period (item 0001, 0002, and 0003) and at least two, one year, separately priced option periods (items 0004 through 0006 and 0007 through 0009).

C. Continuity of Services. The PWS should address certain issues and requirements relative to the change-over from in-house to contracted performance of services. Therefore, add the following "CONTINUITY OF SERVICES" clause to Section C. This paragraph tells the Contractor to expect delivery orders for indefinite quantity work for which some or all required materials are already on hand. Such jobs will likely be left by the in-house workforce when the conversion to contract is approved.

"CONTINUITY OF SERVICES. At the time of the contract start date the Contractor shall be prepared to accept approximately !INSERT! delivery orders for backlogged indefinite quantity work for which materials are already on hand. These proposed delivery orders will be provided to the Contractor and a joint inventory by the Contractor and a Government Representative of all materials on hand shall be conducted within !INSERT! calendar days after the contract start date. The Contractor shall assume custody of these materials (which shall be used only for the delivery order for which specifically designated) upon completion of the inventory. The Government will provide the Contractor a detailed scope of work developed according to the procedures specified in the "GENERAL REQUIREMENTS AND PROCEDURES FOR INDEFINITE QUANTITY WORK" clause, Section C, for each proposed delivery order which includes unit priced labor. The Contractor shall review the Government's scope of work and provide proposed unit prices for the specified equipment and for those specified materials which are not already available in the completed inventory; indicate specific areas of disagreement with the proposed scope of work; and submit proposed scope changes in accordance with the aforementioned clause. Reviewed work scopes shall be returned to the Contracting Officer within !INSERT! calendar days after receipt for backlogged urgent delivery orders, and within !INSERT! calendar days after receipt of backlogged routine delivery orders. Completion dates for each backlogged delivery order shall be negotiated."

D. Multi-Function CA Contracts. In many instances CA program studies involve contracts containing more than one functional area or service. For example, the user may want to study grounds maintenance services in conjunction with surfaced areas maintenance services, and issue a single solicitation. Since most NAVFAC GPWSs are written in the same format, the technical requirements of Sections C and J of this guide may be easily combined with those of other GPWSs to produce a tailored multi-function PWS.

V. PRE-AWARD CONSIDERATIONS. Prior to award it is essential that the activity consider the following aspects of the operation and administration of a surfaced areas maintenance contract. Additionally, Chapters 5 and 6 of NAVFAC MO-327 discuss a number of items which must be considered by the activity prior to the award of a contract, including a pre-award survey of the apparent low, responsive, responsible bidder, and a review of the submitted quality control program.

A. Quality Assurance Evaluator Training. It is vitally important to have an adequate number of qualified QAEs on board prior to the contract start date. In fact, NAVFAC EFD contract offices will not allow contracts to be advertised until the activity provides assurance that such resources will be provided. NAVFAC P-68, *Contracting Manual*, details NAVFAC policy for minimum training requirements for personnel involved in NAVFAC contracts. The manual requires all individuals assigned to QAE duties to attend the QAE training course provided by each of the EFDs within six months of their assignment or have equivalent training as determined by the Contracting Officer. If this training has not been received, the activity should take steps to have the QAE(s) attend the next available course and in the meantime should develop a local training program. The EFD (Code 16) should be contacted for QAE training scheduling or assistance. The QAE should have a good working knowledge of maintenance and inspection procedures and requirements, and should preferably have attended technical training courses on pavement maintenance and repair, etc. Prior to

bid opening, it is essential that the QAE become familiar with the specification.

B. Site Visits. The QAE or other Government representative should be prepared to conduct site visits with potential bidders after inviting bids, when directed by the Contracting Officer or Contract Specialist. The purpose of these visits is to familiarize the Contractor with the location of contract requirements, not to provide additional information which should have been included in the PWS. QAEs must be briefed by the Contracting Officer or the Contract Specialist as to what can and cannot be said to potential bidders during site visits. Customers must also be briefed on precautions to be taken so as not to reveal sensitive information to potential bidders during these visits.

C. Government Furnished Property. Are Government furnished facilities, equipment, and materials, if any, ready for turnover? Has a property administrator been assigned as required by NAVFAC P-68, paragraph 45.303?

D. Quality Assurance Plans. Are adequate QA Plans prepared and ready for use?

END OF USER'S GUIDE SECTION

GUIDE PERFORMANCE WORK STATEMENT  
FOR  
SURFACED AREAS MAINTENANCE SERVICES

PART I - THE SCHEDULE

SECTION B: SUPPLIES OR SERVICES AND PRICES/COSTS

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NOTE TO SPECIFICATION WRITER: User's Guide paragraph III.B discusses a number of issues relative to Section B which the user may want to review prior to tailoring this section. Some NAVFAC Engineering Field Divisions (EFDs) require additional clauses to be added to Section B. The user must contact the appropriate geographical EFD to identify additional clauses, if any, which may be required.

The numbering system for contract line items and subline items shall follow the method prescribed in Subpart 204.71 of the DOD FAR Supplement. In the following example contract line item 0001 is prepared as a single line item supported by a Schedule of Deductions. Alternate methods would be to include a limited number of subline items, each of which would be broken down by Schedules of Deductions; or to eliminate the Schedule of Deductions from the contract and prepare a detailed Schedule of Firm Fixed-Price Work, with detailed contract line items similar to those in the Schedule of Deductions. See paragraph III.B.2 of the User's Guide.

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<u>Item</u>	<u>Supplies/Services</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Amount</u>
0001	<u>FIRM FIXED-PRICE WORK:</u> Price for the BASE PERIOD for all work specified in the contract except for work specifically identified as being included in the Indefinite Quantity portions of the contract.	12	MONTH	\$ _____	\$ _____
	<b>TOTAL PRICE FOR CONTRACT LINE ITEM 0001</b>				\$ _____
0002	<u>INDEFINITE QUANTITY WORK - UNIT PRICED TASKS:</u> Price for the BASE PERIOD to perform the Unit Priced Tasks listed in the Schedule of Indefinite Quantity Work below. The quantities listed are realistic estimates provided solely for the purpose of bid evaluation and for establishing penal sums of bonds (if required). The price for this bid item is the total of the subline items listed in the Schedule of Indefinite Quantity Work - Unit Priced Tasks.				

<u>Item</u>	<u>Supplies/Services</u>	<u>Estimated Quantity</u>	<u>* Unit</u>	<u>Unit Price</u>	<u>Amount</u>
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NOTE TO SPECIFICATION WRITER: The indefinite quantity contract line items listed below are provided for **illustration only**, and should not be considered a complete list. Add or delete items as required when tailoring the technical specifications. Ensure that the appropriate wage rate is identified for each item, if appropriate. See paragraph III.B.3 of the User's Guide for additional information.  
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**SCHEDULE OF INDEFINITE QUANTITY WORK - UNIT PRICED TASKS**

**A. Bituminous Pavements**

0002AA	Sealing Cracks, Service Contract Wage Rates [paragraph C.11.a(1)]	!NUMBER!	LF	\$_____	\$_____
	Temporary Patching, Service Contract Wage Rates [paragraph C.11.a(2)(a)]				
0002AB	Up to 4 SF	!NUMBER!	EACH	\$_____	\$_____
0002AC	4.1 SF to 10 SF	!NUMBER!	EACH	\$_____	\$_____
	Permanent Patching [paragraph C.11.a(2)(b)]				
0002AD	Up to 10 SY, Service Contract Wage Rates	!NUMBER!	EACH	\$_____	\$_____
0002AE	10.1 SY to 50 SY, Service Contract Wage Rates	!NUMBER!	EACH	\$_____	\$_____
0002AF	50.1 SY to 115 SY, Service Contract Wage Rates	!NUMBER!	EACH	\$_____	\$_____
0002AG	115.1 SY to 150 SY, Davis-Bacon Wage Rates	!NUMBER!	EACH	\$_____	\$_____

**B. Rigid Pavements**

0002BA	Sealing Joints and Cracks, Service Contract Wage Rates [paragraph C.11.b(1)]	!NUMBER!	LF	\$_____	\$_____
	Patching with Concrete [paragraph C.11.b(2)]				
0002BB	Shallow, Up to 4 SY, Service Contract Wage Rates	!NUMBER!	EACH	\$_____	\$_____

<u>Item</u>	<u>Supplies/Services</u>	<u>Estimated Quantity</u>	<u>* Unit</u>	<u>Unit Price</u>	<u>Amount</u>
0002BC	Shallow, 4.1 SY to 10 SY, Service Contract Wage Rates	!NUMBER!	EACH	\$_____	\$_____
0002BD	Shallow, 10.1 SY to 20 SY, Davis-Bacon Wage Rates	!NUMBER!	EACH	\$_____	\$_____
0002BE	Deep, Up to 4 SY, Davis-Bacon Wage Rates	!NUMBER!	EACH	\$_____	\$_____
0002BF	Deep, 4.1 SY to 10 SY, Davis-Bacon Wage Rates	!NUMBER!	EACH	\$_____	\$_____
0002BG	Deep, 10.1 SY to 20 SY, Davis-Bacon Wage Rates	!NUMBER!	EACH	\$_____	\$_____
	Temporary Patching Concrete with Bituminous Materials, Service Contract Wage Rates [paragraph C.11.b(3)]				
0002BH	Up to 4 SF	!NUMBER!	EACH	\$_____	\$_____
0002BJ	4.1 SF to 10 SF	!NUMBER!	EACH	\$_____	\$_____
0002BK	10.1 SF to 20 SF	!NUMBER!	EACH	\$_____	\$_____
<u>C. Miscellaneous Surfaces</u>					
	Unscheduled Grading, Service Contract Wage Rates (paragraph C.12.b)				
0002CA	Earth Surfaces	!NUMBER!	SY	\$_____	\$_____
0002CB	Soil Aggregate Surfaces	!NUMBER!	SY	\$_____	\$_____
<u>D. Drainage Systems</u>					
	Service Contract Wage Rates				
0002DA	Remove and Replace 12" Bituminous Coated, Corrugated Metal Pipe, 16 Gage (paragraph C.14.b)	!NUMBER!	LF	\$_____	\$_____
0002DB	Remove and Replace 18" Bituminous Coated, Corrugated Metal Pipe, 14 Gage (paragraph C.14.b)	!NUMBER!	LF	\$_____	\$_____
0002DC	Remove and Replace 12" Reinforced Concrete Pipe (paragraph C.14.b)	!NUMBER!	LF	\$_____	\$_____

<u>Item</u>	<u>Supplies/Services</u>	<u>Estimated Quantity</u>	<u>* Unit</u>	<u>Unit Price</u>	<u>Amount</u>
0002DD	Remove and Replace 18" Reinforced Concrete Pipe (paragraph C.14.b)	!NUMBER!	LF	\$_____	\$_____
E. <u>Unscheduled Sweeping</u>					
Service Contract Wage Rates					
0002EA	Unscheduled Airfield Sweeping (paragraph C.15.a)	!NUMBER!	ACRE	\$_____	\$_____
0002EB	Unscheduled Nonmagnetic Sweeping of Roads [paragraph C.15.b(3)]	!NUMBER!	CURB MILE	\$_____	\$_____
0002EC	Unscheduled Nonmagnetic Sweeping of Parking and Open Storage Areas [paragraph C.15.b(3)]	!NUMBER!	SY	\$_____	\$_____
0002ED	Unscheduled Magnetic Sweeping of Roads [paragraph C.15.b(3)]	!NUMBER!	CURB MILE	\$_____	\$_____
0002EE	Unscheduled Magnetic Sweeping of Parking and Open Storage Areas [paragraph C.15.b(3)]	!NUMBER!	SY	\$_____	\$_____
F. <u>Traffic Services</u>					
0002FA	Furnish and Apply Traffic Stripping, 4" Wide, White and Yellow, Reflectorized, Service Contract Wage Rates (paragraph C.16.b)	!NUMBER!	LF	\$_____	\$_____
0002FB	Furnish and Apply Traffic Stripping, 4" Wide, White and Yellow, Reflectorized, Davis-Bacon Wage Rates (paragraph C.16.b)	!NUMBER!	LF	\$_____	\$_____
0002FC	Furnish and Apply Traffic Stripping, 4" Wide, White, Nonreflectorized, Service Contract Wage Rates (paragraph C.16.b)	!NUMBER!	LF	\$_____	\$_____
0002FD	Furnish and Apply Traffic Stripping, 4" Wide, White, Nonreflectorized, Davis-Bacon Wage Rates (paragraph C.16.b)	!NUMBER!	LF	\$_____	\$_____

Item	Supplies/Services	Estimated Quantity	* Unit	Unit Price	Amount
0002FE	Furnish and Apply Traffic Numbers and Letters, 18" High, White, Nonreflectorized, Service Contract Wage Rates (paragraph C.16.b)	!NUMBER!	EACH	\$ _____	\$ _____
0002FF	Furnish and Apply Traffic Numbers and Letters, 18" High, White, Nonreflectorized, Davis-Bacon Wage Rates (paragraph C.16.b)	!NUMBER!	EACH	\$ _____	\$ _____
0002??	!ADD ADDITIONAL UNIT PRICED TASKS AS NEEDED!	!NUMBER!	!INSERT!	\$ _____	\$ _____
<b>TOTAL PRICE FOR CONTRACT LINE ITEM 0002 (0002AA - 0002??)</b>					\$ _____

0003 INDEFINITE QUANTITY WORK - UNIT PRICED LABOR: Price for labor, material, and equipment in the BASE PERIOD to perform maintenance, repair, and alteration work requirements that cannot be identified in sufficient detail to be included in Contract Line Items 0001 and 0002. This work is described in the GENERAL REQUIREMENTS AND PROCEDURES FOR INDEFINITE QUANTITY WORK clause of Section C. The quantities listed below are realistic estimates provided solely for the purpose of bid evaluation and for establishing penal sums of bonds (if required). The price for this bid item is the total of the subline items listed in the Schedule of Indefinite Quantity Work - Unit Priced Labor.

**SCHEDULE OF INDEFINITE QUANTITY WORK - UNIT PRICED LABOR**

**(Service Contract Wage Rates)**

0003AA	Asphalt Lay Down Man	!NUMBER!	HR	\$ _____	\$ _____
0003AB	Asphalt Raker	!NUMBER!	HR	_____	\$ _____
0003AC	Carpenter	!NUMBER!	HR	_____	\$ _____
0003AD	Concrete Finisher	!NUMBER!	HR	_____	\$ _____
0003AE	Flagger	!NUMBER!	HR	_____	\$ _____
0003AF	Laborer	!NUMBER!	HR	_____	\$ _____
0003AG	Equipment Operator	!NUMBER!	HR	_____	\$ _____





PART I - THE SCHEDULE

SECTION C: DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

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PART I - THE SCHEDULE

SECTION C: DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 GENERAL INTENTION. The intention of this solicitation is to obtain surfaced areas maintenance, repair, and alteration services at !INSERT NAME OF ACTIVITY! by means of a combination firm fixed-price and indefinite quantity contract.

!\*\*\*\*\*!  
NOTE TO SPECIFICATION WRITER: If some surfaced areas maintenance functions are already being performed by contract or by in-house forces, the user may want to clarify the scope of work by adding a "Work Excluded" paragraph to the following clause. Be careful to avoid giving bidders the impression that if work is not specifically excluded, it is automatically included.  
\*\*\*\*\*!

C.2 GENERAL REQUIREMENTS. The Contractor shall furnish all labor, supervision, tools, materials, equipment, incidental engineering, transportation, and management necessary to maintain and repair roads, parking areas, airfield, and other surfaced areas in accordance with the requirements specified herein. Attachment J-C1 describes the types of facilities to be maintained in this contract. Work includes the performance of service calls, recurring maintenance, and indefinite quantity work as described herein.

!\*\*\*\*\*!  
NOTE TO SPECIFICATION WRITER: Unique functional terms should be added to the following list of definitions. Definitions not required should be deleted.  
\*\*\*\*\*!

C.3 DEFINITIONS - TECHNICAL. As used throughout this contract, the following terms shall have the meaning set forth below. Additional definitions are in the "DEFINITIONS" clause in Section I.

a. Where "as shown", "as indicated", "as detailed", or words of similar import are used, it shall be understood that reference is made to this specification and the drawings accompanying this specification unless stated otherwise.

b. Where "as directed", "as required", "as permitted", "approval", "acceptance", or words of similar import are used, it shall be understood that direction, requirement, permission, approval, or acceptance of the Contracting Officer is intended unless stated otherwise.

c. Construction/Alteration. The installation or erection of something not previously existing, i.e., new work. Applies to both the firm fixed-price and indefinite quantity portions of the contract.

d. Contracting Officer. The Contracting Officer is a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

e. Contractor. The term Contractor as used herein refers to both the prime Contractor and any subcontractors. The prime Contractor shall ensure that subcontractors comply with the provisions of this contract.

f. Contractor Representative. A foreman or superintendent assigned in accordance with the "CONTRACTOR EMPLOYEES" clause, Section C.

g. Curb-Mile. A unit of measure for measuring sweeping services. For example, one mile of a two lane road or street equals two curb-miles; and one mile of a four lane divided highway equals four curb-miles.

h. Direct Material Costs. The actual vendor invoice charges for materials used for performance of work under this contract. Direct material costs shall include transportation charges when such charges are included on the invoice by the vendor, as well as any discounts allowed for prompt payment and discounts or rebates for core value or salvage value that accrue to the Contractor. When questions arise concerning the cost of materials, material costs will be based on the lowest of quotes provided by the Contractor from at least three different commercial vendors for the direct material cost. The Government retains the right to obtain additional quotes in questionable situations. The lowest price will be used.

i. Engineered Performance Standards (EPS). A job estimating system developed for the Department of Defense. EPS is the average time necessary for a qualified craftsman working at a normal pace, following acceptable trade methods, receiving capable supervision, and experiencing normal delays to perform defined amounts of work of a specified quality. EPS manuals are published under the following numbers by each military branch. See Attachment J-E1 for additional information.

Navy: NAVFAC P 700 Series  
Army: TB 420 Series  
Air Force: AFM 85 Series

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: Include the following definitions only if unit priced labor is included in the contract.  
\*\*\*\*\*!

The following definitions are applicable to the application of Engineered Performance Standards.

(1) Additional Material Handling. Time expended for loading materials from storage to truck, unloading materials to work area, moving materials to work area, moving materials from storage to job site, removing debris, and handling of materials during the job that is not included in the craft time standard. The above definition is a summary of the definition of "Additional Material Handling" as used in development of Engineered Performance Standards.

(2) Craft Phase. The numbered chronological sequence in which a specific craft performs a job phase. For example:

<u>JOB PHASE</u>	<u>CRAFT PHASE</u>	<u>CRAFT</u>	<u>DESCRIPTION</u>
1	1	Carpenter	Fabricate and install frame for new wall

2	1	Electrician	Rough in electrical
3	2	Carpenter	Install sheet rock
4	2	Electrician	Trim out electrical
5	1	Painter	Paint new wall

(3) Delay Allowances. Time expended for planning work in the shop and at the job site; personal needs; balancing delays waiting for other craftsmen; unavoidable delays; partial day influence; waiting for tools or material that should have been at the job site. The above definition is a summary of the definition of "Delay Allowances" as used in development of Engineered Performance Standards.

(4) Job Phase. The numbered chronological sequence in which work is accomplished regardless of the craft(s) involved. (See Craft Phase above).

(5) Job Preparation. All work and costs associated with receiving and considering a job assignment and instructions; planning equipment and material requirements; obtaining proper tools; laying out tools, material, and equipment; setting up ready to begin work; cleaning and storing tools and equipment; and cleanup of job site.

(6) Travel Time. Time expended between shop and the job site; waiting for vehicle; getting in and out of vehicle; loading and carrying a tool box; vehicle travel; unloading, walking from vehicle to job site; opening and closing door; walking up and down stairs; using elevators; and access to secure or controlled areas.

(7) Work Content Comparison. Work content comparison is a method of comparing a task that is not specifically defined in EPS Task Time Standards to a very similar task that is defined in the EPS Task Time Standards. This definition is a summary of a more detailed definition which appears on page 29 of the EPS Planner and Estimator's Deskguide (NAVFAC P-701.0).

j. Facility. An establishment, structure, or assembly of units of equipment designated for a specific function. For purposes of this contract the term facility includes surfaced areas, including all pavement and miscellaneous or stabilized (other than grass) areas and their related drainage systems used for vehicular, aircraft, or pedestrian traffic (such as roads, streets, service drives, walks, parking areas, open storage, and airfield paved areas), and includes base and subbase courses.

k. Fixed Burden Rate (FBR). The additional costs (expressed in percent of direct material cost) for ordering, handling, and stockpiling materials for work included in the indefinite quantity, unit priced labor portion of the contract.

l. Frequency of Service

(1) Annual (A). Services performed once during each 12-month period of the contract at intervals of 345 to 385 calendar days.

(2) Semiannual (SA). Services performed twice during each 12-month period of the contract at intervals of 160 to 200 calendar days.

(3) Quarterly (Q). Services performed four times during each 12-month period of the contract at intervals of 80 to 100 calendar days.

(4) Monthly (M). Services performed 12 times during each 12-month period of the contract at intervals of 28 to 31 calendar days.

(5) Semimonthly (SM). Services performed 24 times during each 12-month period of the contract at intervals of 14 to 16 calendar days.

(6) Weekly (W). Services performed 52 times during each 12-month period of the contract at intervals of six to eight calendar days.

(7) Daily (D5). Services performed once each day, Monday through Friday, including holidays unless otherwise noted.

(8) Daily (D7). Services performed once each day, seven days per week, including weekends and holidays.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: The following definition indicates that the Contractor's costs for travel associated with unit priced labor must be included in the unit prices bid for labor. This means that additional time for travel will **not** be included in work scopes for unit priced labor. If the user desires to include additional time for travel, delete the word "travel" in the third sentence.  
\*\*\*\*\*!

m. Labor Hour Unit Price. A labor hour unit price is the unit price bid by the Contractor to provide one performance standard hour of work-in-place. The unit price includes all direct and indirect costs associated with performing one standard hour of work. The unit price would typically include the Contractor's hourly craft wage, adjusted to allow for the bidder's work force productivity (i.e. the Contractor's estimate of how his/her work force will perform in relation to the applicable performance standard(s)); and all costs for travel, pre-expended bin materials and supplies, profit, tools, equipment, field and home office overhead, clerical support, supervision, overtime, inspection, fees, taxes, licenses, permits, insurance, etc. In short, all costs associated with providing a specific standard hour of effort.

n. Maintenance/Repair. The preservation or restoration of a piece of equipment, a system, or a facility to such condition that it may be effectively utilized for its designated purposes. Maintenance/repair may be adjustment, overhaul, reprocessing, or replacement of constituent parts or materials that are missing or have deteriorated by action of the elements or usage, or replacement of the entire unit or system if beyond economical repair.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: Insert an appropriate dollar amount in the following paragraph. If Davis-Bacon wage rates are not included repairs should be limited to 32 labor hours or less instead of a total dollar amount. Refer to User's Guide paragraphs I.B.3 and III.B.4.  
\*\*\*\*\*!

o. Major Maintenance/Repair. Any individual incident of repair with a total estimated cost (labor and direct material) exceeding \$!INSERT AMOUNT!.

Major repair is not included in this contract. This exclusion does not apply if the repair is required to correct damage caused by the Contractor.

p. Pre-expended Bin Materials and Supplies. The minor materials and supplies that are incidental to a job, and for which the total direct cost of any one material line item shown on the material estimate is \$10.00 or less. Examples of pre-expended bin materials and supplies include, but are not limited to, solder, lead, flux, electrical connectors, electrical tape, fuses, nails, screws, bolts, nuts, washers, spacers, masking tape, sand paper, solvent, cleaners, lubricants, grease, oil, rags, mops, glue, epoxy, spackling compound, joint tape, gases, refrigerants, refrigeration fittings, plumbers tape and compound, clips, welding rods, heat sinks, touch up paint, and plumbing fittings.

q. Quality Assurance (QA). A method used by the Government to provide some measure of control over the quality of purchased goods and services received.

r. Quality Assurance Evaluator (QAE). The Government employee designated by the Contracting Officer to be responsible for the monitoring of Contractor performance.

s. Quality Control (QC). A method used by the Contractor to control the quality of goods and services produced.

t. Regular Working Hours. The Government's regular (normal) working hours are from !STARTING HOUR! to !ENDING HOUR!, Mondays through Fridays except (a) Federal Holidays and (b) other days specifically designated by the Contracting Officer.

u. Response Time. Response time is defined as the time allowed the Contractor after initial notification of a work requirement to be physically on the premises at the work site with appropriate tools, equipment, and materials, ready to perform the work required. Response times are designated in the appropriate technical clauses in Section C.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: Government furnished property may include real property or personal property. The specification writer must clearly identify Government furnished facilities, Government furnished equipment, and Government furnished material, if any. The following clauses should be modified as needed to fit the activity's specific situation and needs. Remember that if a CA program study is being conducted, decisions on whether or not to provide Government furnished facilities and equipment must be based on an economic analysis. Refer to OPNAVINST 4860.7B.  
\*\*\*\*\*!

C.4 GOVERNMENT-FURNISHED PROPERTY AND SERVICES. In accordance with the "GOVERNMENT PROPERTY (FIXED-PRICED CONTRACTS)" clause in Section I, the Government will provide the Contractor the option of using certain Government owned !MODIFY AS REQUIRED! facilities, equipment, materials, and utilities for use only in connection with this contract. The use of Government furnished property and services for other purposes is prohibited. All such facilities, equipment, and materials will be provided in "as is" condition.

!SELECT EITHER a. OR a.(OPTIONAL)!

a. Government-Furnished Facilities. The Government will furnish or make available to the Contractor the facilities described in Attachment J-C2. The Contractor shall be responsible and accountable for such facilities accepted for use and shall take adequate precautions to prevent fire hazards, odors, and vermin. Janitorial services for Government furnished facilities shall be provided by the Contractor. The Contractor shall obtain written approval from the Contracting Officer prior to making any modifications or alterations to the facilities. Any such modifications or alterations approved by the Government will be made at the expense of the Contractor. At the completion of the contract all facilities shall be returned to the Government in the same condition as received, except for reasonable wear and tear. The Contractor shall be held responsible for the cost of any repairs caused by negligence or abuse on his/her part, or on the part of his/her employees.

a.(OPTIONAL) Government-Furnished Facilities. The Government will not provide office space and operational facilities to the Contractor. The Contractor shall secure and maintain the necessary office space and other facilities required for the performance of this contract at his/her own expense.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: The specification writer must determine what equipment and material will be provided to the Contractor and select from the following paragraphs as appropriate. Equipment and material should normally not be provided to the Contractor unless economically justified under a CA program study. Extensive equipment and material listings should be placed in Attachments J-C3 and J-C4 respectively, including identification number, age, location, quantity, size or capacity, etc. Specific maintenance requirements beyond the general requirements of this clause should also be detailed in these Attachments. If items are located at other than Government furnished facilities, specify location and responsibility for transportation. If no equipment or material will be provided to the Contractor, the OPTIONAL clauses should be used.  
\*\*\*\*\*!

!SELECT EITHER b. OR b.(OPTIONAL)!

b. Government-Furnished Equipment. The Government will provide the Contractor the use of existing and available Government owned tools and equipment in the performance of the contract. Such Government furnished tools and equipment are listed in Attachment J-C3.

(1) The Contractor shall provide periodic servicing, maintenance, and repair of the equipment accepted for use at no cost to the Government. The total or partial breakdown or failure of the Government furnished equipment shall not relieve the Contractor of responsibility to fully perform the work of the contract. Upon completion or termination of the contract, all Government owned equipment shall be returned to the Government in the same condition as received, except for normal wear and tear. Equipment which becomes worn out due to normal wear and tear shall be returned to the Government and its replacement shall be the responsibility of the Contractor at no cost to the Government. Equipment so acquired shall remain the property of the Contractor. The Contractor shall be responsible for the cost of any repairs or replacement caused by negligence or abuse by the Contractor or his/her employees.

(2) The Contractor and the Contracting Officer shall conduct a joint inventory before commencing work under this contract to determine the exact

number and serviceability of Government furnished equipment. The Contractor shall then certify the findings of this inventory, assume accounting responsibility, and subsequently report inventory discrepancies to the Contracting Officer. Government furnished equipment shall not be removed from the military base unless approved by the Contracting Officer in writing.

b.(OPTIONAL) Government-Furnished Equipment. The Contractor shall furnish all tools and equipment required for the performance of this contract. The Government will not provide tools or equipment to the Contractor.

!SELECT EITHER c. OR c.(OPTIONAL)!

c. Government-Furnished Material. The Government will furnish the material described in Attachment J-C4 to the Contractor on a one time basis. The Contractor and the Contracting Officer shall conduct a joint inventory before commencing work to determine the exact amount and serviceability of Government furnished materials. The Contractor shall then certify the findings of this inventory, assume accounting responsibility for all materials accepted for use, and provide documentation supporting issue/use of such material. Upon depletion of material provided to the Contractor by the Government, the Contractor shall furnish all material to perform the work of the contract, except as otherwise specified herein. Upon completion or termination of this contract a second joint inventory shall be conducted, if necessary, of all unused Government furnished materials. The Contractor shall be held liable for all materials which cannot be accounted for by issue/use documentation.

c.(OPTIONAL) Government-Furnished Material. The Government will not provide any materials to the Contractor.

d. Availability of Utilities. The Government will furnish the following utility services at existing outlets for use in those facilities provided by the Government, and as may be required for the work to be performed under the contract: electricity, steam, natural gas, fresh water, sewage service, and refuse collection (from existing collection points). Information concerning the location of existing outlets may be obtained from the Contracting Officer. The Contractor shall provide and maintain, at his/her expense, the necessary service lines from existing Government outlets to the site of work.

!SELECT EITHER (1) OR (1)(OPTIONAL)!

(1) Utilities specified above will be furnished at no cost to the Contractor.

(1)(OPTIONAL) The Contractor shall pay for utilities consumed and shall, at his/her expense, install meters as required by the Contracting Officer to measure consumption of utilities provided by the Government. Rates for reimbursement to the Government of metered utilities will be: !LIST THE RATES OF REIMBURSEMENT PER TYPE OF SERVICE PROVIDED!

(2) A restricted telephone line (USOC Class RS4) for on base calls will be provided by the Government at no cost to the Contractor. The Contractor shall install commercial telephone service, and all service and toll charges shall be paid for by the Contractor.

C.5 CONTRACTOR FURNISHED ITEMS. Except for the items listed in clause C.4 the Contractor shall provide all facilities, equipment, materials, and services to

perform the requirements of this contract. The Contractor shall provide new materials and supplies when providing maintenance, repair, and alteration services as described herein. All replacement materials and supplies to be used for maintenance and repair shall be compatible with the existing facilities on which used; shall be of equal or better quality than original; shall conform to the applicable specifications listed in Attachment J-H1 and the technical specifications, Section C; and used in accordance with original design and manufacturer intent. Items not listed in Attachment J-H1 or technical specifications shall be of acceptable industrial grade and quality. If a dispute should arise concerning material or supplies selected by the Contractor for work already accomplished, the Contractor must, upon direction of the Contracting Officer, remove, replace, or rework materials and supplies so that the work complies with contract requirements. The "CHANGES" clause states the procedure the Contractor needs to follow to submit the removal, replacement, or rework as a "change" to the contract.

C.6 WORK OUTSIDE REGULAR HOURS. Except as may otherwise be specified, all work shall be performed during regular working hours. If the Contractor desires to carry on work on Saturday, Sunday, holidays, or outside regular working hours, he/she must submit application to the Contracting Officer for approval.

C.7 MANAGEMENT. The Contractor shall manage the total work effort associated with the maintenance, repair, and all other services required herein to assure fully adequate and timely completion of these services. Included in this function are a full range of management duties including, but not limited to, planning, scheduling, report preparation, establishing and maintaining records and inventories, and quality control. The Contractor shall provide an adequate staff of personnel with the necessary management expertise to assure the performance of the work in accordance with sound and efficient management practices.

a. Work Control. The Contractor shall implement all necessary work control procedures to ensure timely accomplishment of work requirements, as well as to permit tracking of work in progress. The Contractor shall plan and schedule work to assure material, labor, and equipment are available to complete work requirements within the specified time limits and in conformance with the quality standards established herein. Verbal scheduling and status reports shall be provided when requested by the Contracting Officer. The status of any item of work must be provided within !INSERT NUMBER! hours of the inquiry during regular working hours, and within !INSERT NUMBER! hours after regular working hours.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: In the following paragraph specify those areas, if any, where work must be scheduled to be accomplished during specific time periods, such as other than during regular working hours.  
\*\*\*\*\*!

b. Work Schedule. The Contractor shall schedule and arrange work so as to cause the least interference with the normal occurrence of Government business and mission. In those cases where some interference is unavoidable, the Contractor shall make every effort to minimize the impact of the interference and its effects.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: Reports and information which the Government

periodically needs from the Contractor should be listed in Attachment J-C5. Report formats, required information, etc. should be discussed in detail in this attachment.

\*\*\*\*\*!

c. Records and Reports. The Contractor shall maintain records and prepare maintenance reports as set forth in Attachment J-C5, "LIST OF REQUIRED RECORDS AND REPORTS". All records and copies of reports shall be turned over to the Contracting Officer within five calendar days after contract completion.

d. Staffing. The Contractor shall continuously maintain an adequate staff with suitable management expertise to assure work is scheduled and completed in accordance with these specifications. The Contractor shall maintain a work force capable of completing work in accordance with the time and quality standards specified.

!\*\*\*\*\*

NOTE TO SPECIFICATION WRITER: When tailoring the following paragraph remember that Davis-Bacon wage provisions will apply to any service call which 1) requires 32 or more estimated labor hours for accomplishment, or 2) includes alterations. If Davis-Bacon wages are not to be included in the contract, delete the word "alteration" in the first sentence. See User's Guide paragraph III.B.4 for additional information.

\*\*\*\*\*!

C.8 GENERAL REQUIREMENTS AND PROCEDURES FOR SERVICE CALL WORK. Service calls are defined as maintenance, repair, alteration, or other miscellaneous work requirements which are called into the work reception center or generated by designated Government representatives; require not more than !INSERT NUMBER! estimated total labor hours for accomplishment; and require not more than \$!INSERT DOLLAR AMOUNT! in total direct material costs. All service call work is included in the firm fixed-price portion of the contract.

!\*\*\*\*\*

NOTE TO SPECIFICATION WRITER: Use paragraph a below if Davis-Bacon service calls will be included in the contract, and paragraph a.(OPTIONAL) if they will not.

\*\*\*\*\*!

a. Labor and Material Requirements

(1) Labor. Calls estimated to require less than 32 labor hours will be subject to Service Contract wage rates. Calls estimated to require 32 labor hours or more, or which include alteration requirements, will be subject to Davis-Bacon wage rates. The Contracting Officer will determine which wage rate is applicable in questionable situations. When questions arise concerning the labor hours required for a particular job, labor hour requirements will be based on Engineered Performance Standards (EPS) Manuals (NAVFAC P-700 series) or, if not applicable, other estimating sources.

(2) Materials. When questions arise concerning the cost of materials, material costs will be based on the lowest of quotes provided by the Contractor from at least three different commercial vendors for the actual direct cost of materials. The Government retains the right to obtain additional quotes in questionable situations, and the lowest price obtained will be used. The Contractor shall maintain sufficient off-the-shelf materials and equipment on

hand to support service call work requirements. Lack of availability of materials or equipment will not relieve the Contractor from the requirement to complete service call work within the time limits specified.

a. (OPTIONAL) Labor and Material Requirements

(1) Labor. All service call work is subject to Service Contract wages. When questions arise concerning the labor hours required for a particular job, labor hour requirements will be based on Engineered Performance Standards (EPS) Manuals (NAVFAC P-700 series) or, if not applicable, other estimating sources.

(2) Materials. When questions arise concerning the cost of materials, material costs will be based on the lowest of quotes provided by the Contractor from at least three different commercial vendors for the actual direct cost of materials. The Government retains the right to obtain additional quotes in questionable situations, and the lowest price obtained will be used. The Contractor shall maintain sufficient off-the-shelf materials and equipment on hand to support service call work requirements. Lack of availability of materials or equipment will not relieve the Contractor from the requirement to complete service call work within the time limits specified.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: Since more than likely there will be few service calls for surfaced areas maintenance at the typical activity, it will not be practical or cost effective to require the Contractor to maintain a service call reception desk or to routinely pick up work authorization forms at some predesignated location, such as the Government's work reception desk. Therefore it is recommended that the Government simply advise the Contractor by phone of each call received. Tailor the following as required if different procedures are desired, and delete the words "applicable wage rate" if Davis-Bacon service calls are not included.  
\*\*\*\*\*!

b. Service Call Reception. The Government's work reception center will advise the Contractor by phone of all service call requests received, both during and after regular working hours, as well as the classification of each call based on the definitions provided below. A description of the problem or requested work, date and time received, location, classification, applicable wage rate, and other appropriate information will be placed on a Service Call Work Authorization Form (see Attachment J-C6) and a copy made available for pickup by the Contractor at the Government's work reception center.

c. Service Call Classification

(1) Emergency Calls. Service calls will be classified as emergency at the discretion of the Contracting Officer. Generally, emergency calls will consist of correcting failures which constitute an immediate danger to personnel, threaten to damage property, or threaten to disrupt activity operations and/or training missions. Examples include pot holes in operational runway, road washed out, stop sign down, foreign object debris (FOD) on operational runway, etc.

(2) Urgent Calls. Service calls will be classified as urgent at the discretion of the Contracting Officer. Generally, urgent calls will consist of providing services or correcting failures which do not immediately threaten personnel, property, or activity missions; but which would soon inconvenience

and/or affect the health or well being of personnel, lead to property damage, or lead to disruptions in operational and/or training missions. Calls will also be classified as urgent when the service or failure has upper level or command/management attention.

(3) Routine Calls. Service calls will be classified by the Contracting Officer as routine when the work does not qualify as an emergency or urgent call. Examples of routine calls include pot holes in road, information sign down, debris against bridge abutment, etc.

d. Response to Service Calls. The Contractor shall have adequate procedures for receiving and responding to service calls 24 hours per day, including weekends and holidays. A single local or toll free telephone number shall be provided by the Contractor for receipt of all service calls. All telephone calls shall be answered within 30 seconds by an individual fully familiar with the Contractor's work control procedures and the terms and conditions of this contract. Calls shall be considered received by the Contractor at the time and date the telephone call is placed by the work reception center or other authorized Government representative.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: The user must insert response and completion times as required to suit the activity's needs. Delete the urgent classification if not needed.  
\*\*\*\*\*!

(1) Response by Classification

(a) Emergency Calls. The Contractor shall respond immediately and must be on the job site and working within !INSERT NUMBER! minutes after receipt of an emergency service call. The Contractor shall work continuously without interruption and shall correct, remedy, or take other actions as required to contain the emergency condition before departing the job site (e.g., patch the pot hole in the runway, etc.). If further labor and material (follow up work) are required to complete the repair, the call will be reclassified as either urgent or routine, as appropriate, and the corresponding completion time will then apply. Such follow up work shall be considered part of the original service call. If the follow up work is beyond the scope of a service call the procedures in paragraphs C.8.c(2) or C.8.c(3) below shall apply.

(b) Urgent Calls. The Contractor shall be on the job site and working within !INSERT TIME! after receipt of an urgent service call received during regular working hours, and within !INSERT TIME! for urgent calls received after regular working hours, on weekends, or holidays. Once begun, the work shall be prosecuted to completion and must be completed within !INSERT NUMBER! hours.

(c) Routine Calls. All routine service calls shall be completed within !INSERT NUMBER! working days of receipt. Routine calls shall normally be accomplished during regular working hours, Monday through Friday.

(2) Beyond the Scope of Urgent Call. If the Contractor responds to an urgent service call and believes that the work required is beyond the scope of a service call, as defined above, the Government's work reception center (during regular working hours) or !INSERT COMMAND DUTY OFFICER OR OTHER APPROPRIATE INDIVIDUAL! (after regular working hours) must be contacted within one hour. If

requested by the Contracting Officer, the Contractor shall provide a summary of the work needed and a detailed EPS estimate showing labor hour and material requirements within four hours of the request.

(a) If the Contracting Officer agrees that the work required is beyond the scope of a service call, the Contracting Officer will cancel the original work authorization. In that case, the work will be accomplished under the "GENERAL REQUIREMENTS AND PROCEDURES FOR INDEFINITE QUANTITY WORK" clause or by means other than this contract.

(b) If the Contracting Officer determines that the work falls within the scope of a service call, the original work authorization will be returned to the Contractor, who shall complete the work. Payment deductions and liquidated damages will be taken if the work is not completed by the original time limit established when the call was received.

(3) Beyond the Scope of Routine Call. If the Contractor responds to a routine service call and believes that the work required is beyond the scope of a service call, as defined above, the work authorization form shall be returned to the work reception center no later than !INSERT TIME! the following workday. The Contractor shall attach a summary of the work needed and a detailed EPS estimate showing labor hour and material requirements. The Contracting Officer may waive the requirement to submit estimates in cases where the scope of work is clearly beyond that of a service call.

(a) If the Contracting Officer agrees that the work required is beyond the scope of a service call, the scope of the work will be reduced and a new service call work authorization issued by the Government, or the original work authorization will be canceled. If the original work authorization is canceled, the work will be accomplished under the "GENERAL REQUIREMENTS AND PROCEDURES FOR INDEFINITE QUANTITY WORK" clause or by means other than this contract.

(b) If the Contracting Officer determines that the work falls within the scope of a service call, the original work authorization will be returned to the Contractor, who shall complete the work. Work on such calls shall still be completed within !INSERT NUMBER! working days from the original receipt date/time, plus the amount of time the work authorization was held by the Contracting Officer for determination. Payment deductions and liquidated damages will be taken if the work is not completed within this time frame.

e. Completed Calls. Within one working day after completion of each service call the Contractor shall add the following information to the work authorization form and return to the work reception center:

- (1) Description of work actually completed.
- (2) Brief description of material and parts used, including quantities.
- (3) Date and time work began.
- (4) Date and time work was completed.
- (5) Hours of labor (by craft) expended.

(6) Signature or initials of the Contractor's craftsman performing the work (or supervisor), indicating that the work has been completed.

f. Historical Data. Data on the number of service calls of each classification which have historically been performed, the expected percentage of calls which will be subject to Davis-Bacon wage rates, and other useful information is included in Attachment J-C7.

C.9 GENERAL REQUIREMENTS AND PROCEDURES FOR RECURRING WORK. Recurring work includes all work requirements for which schedules of accomplishment have been included in the contract, or for which the Contractor is required to submit schedules for Government approval. All recurring work is included in the firm fixed-price portion of the contract. The Contractor shall provide and store materials and supplies as necessary for the continued performance of all recurring work as specified herein. Lack of availability of materials and supplies will not relieve the Contractor from the requirement to complete work within the time requirements and quality standards specified herein. Recurring work in this contract includes:

- Scheduled grading of miscellaneous surfaces (paragraph C.12.a)
- Inspection of drainage systems (paragraph C.14.a)
- Scheduled sweeping of airfields, roads, parking areas, and open storage areas (clause C.15)

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: If the user decides not to include unit priced labor provisions in the contract, but still wants to include indefinite quantity unit priced tasks, delete the following clause in its entirety and replace with the C.10(OPTIONAL) clause.  
\*\*\*\*\*!

C.10 GENERAL REQUIREMENTS AND PROCEDURES FOR INDEFINITE QUANTITY WORK.

Unscheduled work requirements which cannot be defined in sufficient detail to be included in the firm fixed-price portion of the contract, or which are beyond the scope of a service call (as defined in clause C.8), will be included in the indefinite quantity portion of the contract.

a. Categories of Indefinite Quantity Work. There are two categories of indefinite quantity work included in the contract, unit priced tasks and unit priced labor.

(1) Unit Priced Tasks. Unit priced work items are included in the Schedule of Indefinite Quantity Work - Unit Priced Tasks, Section B. The unit prices bid include all labor, material, and equipment necessary to perform the specified task. Unit priced tasks may be ordered to be accomplished as stand alone services, or in combination with unit priced labor.

(2) Unit Priced Labor. Unit priced labor rates are set forth in the Schedule of Indefinite Quantity Work - Unit Priced Labor, Section B. Material and equipment requirements associated with unit priced labor will be reimbursed in accordance with the procedures specified in this clause.

b. Ordering Unit Priced Tasks. When unit price tasks are ordered as stand alone items or in conjunction with other unit priced tasks, delivery orders

shall indicate the item(s), number of units, location of the work, and other pertinent information in accordance with the "PROCEDURES FOR ISSUING ORDERS" clause in Section G. Attachment J-C8 indicates the minimum and maximum number of units that may be included on a single delivery order, as well as the number of working days in which delivery orders must be completed.

c. Ordering Unit Priced Labor. The Contractor shall be paid a negotiated fixed-price for each delivery order which includes unit priced labor, as specified in the following procedures.

(1) General Procedures. The Government will provide the Contractor a detailed scope of work developed according to the procedures specified in the "Preparation of Work Scopes" paragraph below for each proposed delivery order for unit priced labor. The Contractor shall review the Government's scope of work and indicate specific areas of disagreement in accordance with the procedures specified in the "Contractor's Review of Proposed Work Scopes" paragraph below. After the Contracting Officer reviews the Contractor's proposed material/equipment unit prices and proposed scope changes, he/she will revise the Government's scope of work and/or negotiate any remaining areas of disagreement over work scope or material/equipment unit prices with the Contractor. The approved scope of work then becomes a fixed-price delivery order for the work described.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: If scopes of work will be developed on the Public Works Management Automation (PWMA), Facilities Engineering Job Estimating (FEJE) module, the following procedures may need to be altered slightly.  
\*\*\*\*\*!

(2) Preparation of Work Scopes. The Government's detailed scope of work will be provided on DD Form 2167, Job Phase Calculation Sheet, and will include: (1) the scope of work to be performed, (2) the number of hours set forth in the work performance standard to perform the given scope of work, (3) the number of unit priced tasks required to perform the required scope of work, (4) an identification of specific work tasks for which there are no applicable performance standards, and (5) the projected quantity of materials and equipment required to perform the required scope of work. Any portion of the work required which has been bid as unit priced tasks will be priced using the unit prices set forth in the bid schedule.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: EPS is used as the primary basis for determining the number of unit priced labor hours required to accomplish any given job requiring unit priced labor. The user may choose to specify another primary source for labor hour standards, such as those published by R. S. Means Company, and modify the following clause accordingly.

Travel time is not included in the procedure for determining labor requirements described in the following paragraph, since it is assumed that no Government furnished facilities (which are located in EPS travel zone zero) are to be provided for the Contractor's use. If such facilities are to be provided, the user should consider deleting the words "travel (travel zone 0 (shop) will be used when applying total craft time to the EPS nomograph)" from the last sentence, and make other changes as appropriate to allow travel time to be included in the EPS determination of labor hour requirements. Ensure that

corresponding changes are made to the "Labor Hour Unit Price", "Pre-expended Bin Materials and Supplies", and other related definitions in clause C.3.

\*\*\*\*\*!

(a) Labor Requirements. Engineered Performance Standards (EPS) shall be the primary source for determining the number of performance standard hours required to complete the scope of work. EPS does not cover every task that might be accomplished by specific crafts. For tasks which are not exactly identified in EPS manuals, work content comparison will be performed prior to making a determination that EPS does not apply. When a work task cannot be found either directly in EPS or by using EPS work content comparison procedures, the number of performance standard hours required shall be determined based on the following commercial work performance standards in the sequence indicated: *Means Repair & Remodeling Cost Data*, !INSERT OTHER APPLICABLE STANDARDS AS REQUIRED!. Labor hours shall not be included in the scope of work as mark-ups or add-ons for travel (travel zone 0 ("shop") shall be used when applying the EPS nomograph), work time associated with union agreements, overhead, profit, material markups, supervision, or clerical support. These items shall be included in the labor hour unit prices and fixed burden rates bid by the Contractor.

(b) Material Requirements. Projected material requirements will include a list of materials establishing the size, quality, and number of units. Pre-expended bin supplies and materials will not be included in the list of materials since the cost for these items were included in the labor hour unit prices bid.

(c) Construction and Weight Handling Equipment Requirements. Requirements for construction and weight handling equipment will include identification of the type, size, capacities, and number of units; and whether or not Government furnished equipment and/or operators will be made available.

(3) Contractor's Review of Proposed Work Scopes. The Contractor shall review proposed work scopes and provide: (1) proposed unit prices for the materials and equipment specified in the scope of work, (2) proposed number of standard hours required to complete the specified scope of work which are not covered by EPS or other specified work performance standards, (3) a description of any additional materials, equipment, or task descriptions that are necessary to satisfactorily accomplish the overall work scope for the particular craft phases, and (4) a list of any discrepancies in the material, equipment, and task descriptions listed in the Government's proposed scope of work. Descriptions of proposed additional materials, equipment, or task descriptions shall be prepared in accordance with the "Preparation of Work Scopes" paragraph, including appropriate performance standard task references and the total estimated number of performance standard hours. Reviewed work scopes shall be returned to the Contracting Officer within !INSERT! calendar days after receipt for proposed urgent delivery orders, and within !INSERT! calendar days after receipt of proposed routine delivery orders.

(4) Establishing Final Delivery Order Cost. Once a bilateral agreement is reached, the final cost will be a firm fixed-price delivery order for the work described.

(a) Establishing Total Labor Costs. The total labor cost will be determined by totaling the number of performance standard labor hours for each craft (trade) and then multiplying by the appropriate labor hour unit price from

the Schedule of Indefinite Quantity Work - Unit Priced Labor. This procedure will be followed for each craft required to perform the job. The total for all crafts is the total labor cost.

(b) Establishing Total Material Costs. Material prices provided by the Contractor shall be the lowest price available considering the availability of materials and the time constraints of the job. The direct material price shall be reduced by all discounts and rebates for core value or salvage value that accrue to the Contractor. The total direct material cost for the job will be multiplied by the Contractor's fixed burden rate from the "MATERIAL TO SUPPORT UNIT PRICED LABOR" contract line item, Section B, to determine the total burdened material cost for the job.

(c) Establishing Total Equipment Costs

1 Rental equipment shall be based on the lowest price available considering availability and time constraints of the job.

2 When the equipment to be used is owned by the Contractor, the price proposed shall be based on the U. S. Army Corps of Engineers Construction Equipment Ownership and Operating Expense Schedule EP 1110-1-8.

3 Cost for equipment operators, when separate operators are required, shall be based on an EPS standard labor hour basis, unless operator cost is included in equipment rental price or operator has been provided by the Government. Any overhead expense associated with equipment usage shall be included in the Contractor's bid for the applicable labor hour unit price.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: The urgent and routine classifications allow for different completion times for unit priced labor. The user should modify these requirements as needed.  
\*\*\*\*\*!

(5) Completion Requirements. The Contracting Officer will order unit priced labor by issuing to the Contractor a copy of the approved scope of work and a delivery order for the work described, in accordance with the "PROCEDURES FOR ISSUING ORDERS" clause in Section G.

(a) Urgent Work. Historically the Government has classified up to !INSERT!% of the delivery orders for unit priced labor as urgent. The Contractor shall complete all urgent delivery orders within !INSERT! calendar days of receipt. Urgent work shall normally be performed only during regular working hours, except that after hours and/or weekend work may be authorized by the Contracting Officer if required to complete work within the time requirement specified above.

(b) Routine Work. All nonurgent work will be classified as routine work. Routine work will be further classified by the Government as one of two different "Types". Delivery orders for routine work shall be completed within the number of calendar days after receipt specified in the table below. No more than !INSERT!% of the delivery orders for routine work will be classified as Type I.

CLASSIFICATION COMPLETION TIME

Type I !INSERT! calendar days  
Type II !INSERT! calendar days

(6) Engineered Performance Standards

(a) EPS Handbooks. EPS handbooks will be made available for examination at !INSERT LOCATION AT THE ACTIVITY WHERE THE WORK WILL BE PERFORMED AND THE CONTRACTS OFFICE AT WHICH THE BIDS WILL BE RECEIVED! and at Naval Facilities Engineering Command Engineering Field Divisions during the bidding period of this contract. !INSERT! copies of the EPS handbooks will be provided to the Contractor after award.

(b) Travel Zone Maps. The Travel Zone map for !ACTIVITY! is provided as Attachment J-C!INSERT! and is to be used in conjunction with the historical data in Attachment J-C7 to evaluate travel time impact.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: Include this optional clause only if unit priced labor is not to be included in the contract.  
\*\*\*\*\*!

C.10(OPTIONAL) GENERAL REQUIREMENTS AND PROCEDURES FOR INDEFINITE QUANTITY WORK. The indefinite quantity items listed in the Schedule of Indefinite Quantity Work, Section B, will be ordered by the Contracting Officer on a delivery order, DD Form 1155, in accordance with the "PROCEDURES FOR ISSUING ORDERS" clause, Section G. The unit prices bid include all labor, material, and equipment necessary to perform the specified task. Attachment J-C8 indicates the minimum and maximum number of units that may be included on a single delivery order, as well as the number of working days in which delivery orders must be completed.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER. There are many materials and procedures used in pavement maintenance and repair. The materials and procedures in the following clauses illustrate one method to perform the work. The user must tailor these to meet the specific needs of the activity. List all applicable directives/publications/specifications in the specific clauses below and in Attachment J-H1.  
\*\*\*\*\*!

C.11 GENERAL REQUIREMENTS FOR PAVEMENTS. The Contractor shall provide pavement maintenance, repair, and alteration services for the pavements listed in Attachment J-C1 in accordance with the directives/publications/specifications listed in Attachment J-H1, and as specified below. All work specified in this clause is included in the indefinite quantity portion of the contract.

a. Bituminous Pavements

(1) Sealing Cracks. Seal cracks 1/4 inch or wider in accordance with NAVFAC manual MO-102.6, *Asphalt Crack Repair*, sections entitled "Specifications", "Crack Preparation and Sealing Equipment" and "Crack Preparation and Sealing Procedures". The sealing material shall conform to Federal Specification SS-S-1401 for roads and parking areas and Federal Specification SS-S-1614 for airfield pavements.

(2) Patching

(a) Temporary Patch. Install a temporary patch or repair on the pavement with either bituminous cold mix or hot mix. During inclement weather the area to be patched shall be cleaned out and dried using a pavement heater and/or blow torch. The area shall be filled with the bituminous material and compacted by hand tamp, mechanical tamper, roller, and/or loaded truck wheels.

(b) Permanent Patch. The permanent patching of an area requires proper preparation and backfill. Replacement materials shall be of equal or better quality than the existing, and shall equal the existing material in thickness, including all existing overlays. The Contractor shall perform the following steps in patching an area or pothole.

(1) Step 1. Square up and deepen the area and/or hole. The sides of the hole shall be cut vertical and square with one pair of faces being at right angles to the direction of traffic.

(2) Step 2. Remove all loose material down to firm support, a maximum of 6 inches.

(3) Step 3. Apply a tack coat to bond the bituminous material to the bottom and sides using a liquid asphalt (emulsified: SS-1, SS-1h, CSS-1, or CSS-1h; or cutback: RC-250 or RC-70) at a rate of 0.30 gallon per square yard.

(4) Step 4. Backfill the prepared area with bituminous hot mix conforming to specifications. This material shall be carefully placed to prevent separation of the mixture. The material shall be placed in layers not to exceed 4 inches and compacted to 95% of the maximum laboratory density of the material used. The completed patched area shall match the grade and elevation of the surrounding pavement.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: Military Handbook MIL-HDBK-1102/7; NAVFAC manuals MO-102.2, 102.4, and 102.6; and NFGSS 02562, 02563, 02564 provide guidance on the preparation of specifications for maintenance and repair of rigid pavements. The user should refer to these guides when specifying maintenance and repair materials and procedures, since the materials and repair procedures shown below are provided for illustration only. Standards for silicone sealer, which were not available at time of GPWS publication, should be inserted in paragraph b(1).  
\*\*\*\*\*!

b. Rigid Pavements

(1) Sealing Joints and Cracks. Seal joints and cracks in accordance with Military Handbook MIL-HDBK-1102/7, *Concrete Pavement Repair Manual*, section entitled "Joint and Crack Sealing", including the removal of all existing sealant; refacing, rebuilding, and cleaning joints; crack preparation and cleaning; and application and curing of sealant. Sealant material shall be a single component, cold applied, self leveling silicone conforming to !INSERT STANDARD!.

(2) Patching with Concrete. Patch existing concrete pavement in accordance with Military Handbook MIL-HDBK-1102/7, section entitled "Partial Depth Repair of Pavements". The patching material shall be !INSERT TYPE AND STRENGTH, E.G., TYPE I, 3000 PSI COMPRESSIVE STRENGTH IN 28 DAYS!.

(3) Temporary Patching Concrete With Bituminous Materials. Patch existing concrete paving using bituminous materials in accordance with permanent patch of bituminous pavement procedures, paragraph C.11.a(2)(b).

C.12 GENERAL REQUIREMENTS FOR MISCELLANEOUS SURFACES. The Contractor shall provide maintenance, repair, and alteration services for the miscellaneous surfaces listed in Attachment J-C1 in accordance with the directives/publications/specifications listed in Attachment J-H1, and as specified below. Potholes, ruts, washouts, and other irregularities shall be removed and adequate crowns and drainage shall be maintained on all miscellaneous surfaces.

a. Scheduled Grading Services. The Contractor shall grade earth and soil aggregate surfaces at the locations and frequencies specified below. Within !INSERT NUMBER! calendar days after award of the contract, the Contractor shall provide a schedule for the Contracting Officer's approval which indicates proposed dates for the accomplishment of all scheduled grading services for the entire term of the contract. The Contracting Officer may require the Contractor to change approved schedule dates based on roadway and weather conditions, at no additional cost to the Government. All scheduled services are included in the firm fixed-price portion of the contract, and is subject to Service Contract wage rates.

(1) Earth Surfaces. All of the earth surfaces listed in Attachment J-C1 shall be graded quarterly to correct crown and drainage problems and to eliminate potholes, ruts and irregularities. Areas shall be graded lightly to prevent corrugations or "washboarding". Fill dirt shall be provided and compacted as required. Historically !INSERT NUMBER (CUBIC YARDS OR TONS)! of fill dirt have been required per year to provide these services.

(2) Soil Aggregate Surfaces. All of the soil aggregate surfaced areas listed in Attachment J-C1 shall be graded once during the period January - March, and once per month thereafter for the remainder of the year. These surfaces, including both gravel and crushed stone surfaced areas, shall be graded to correct crown and drainage problems and to eliminate potholes, ruts, and irregularities. Gravel and crushed stone shall be provided as required. Historically !INSERT NUMBER (CUBIC YARDS OR TONS)! of gravel and/or crushed stone have been required per year to provide these services.

b. Unscheduled Grading Services. Unscheduled earth and soil aggregate grading services, which are included in the indefinite quantity portion of the contract, will be ordered by the Contracting Officer when grading is required between scheduled services, and when grading is required on those surfaces not covered by scheduled services. For bidding purposes the Contractor shall assume that !INSERT NUMBER (CUBIC YARDS OR TONS)! of fill dirt and !INSERT NUMBER (CUBIC YARDS OR TONS)! of gravel and/or crushed stone will be required if the maximum quantity of unscheduled services are ordered during the contract term. The work shall be provided to the same quality standards as specified for scheduled grading services.

C.13 GENERAL REQUIREMENTS FOR SHOULDERS. The Contractor shall provide maintenance, repair, and alteration services for the shoulders listed in Attachment J-C1 in accordance with the directives/publications/specifications listed in Attachment J-H1, and as specified below. All work specified in this clause will be ordered on a service call or indefinite quantity unit priced

labor basis, depending on the size of the order, except that all work on bituminous shoulders is included in the indefinite quantity portion of the contract.

a. Earth Shoulders. Maintain and repair earth shoulders by filling of ruts and washes and shaping in order to maintain the designed shape of the shoulders.

b. Sod Shoulders. Maintain and repair sod shoulders by repairing damaged and rutted areas. Damaged and rutted areas shall be filled with dirt to 3 inches below the designed surface and new sod to match existing shall be placed and tamped thoroughly. Fertilizer !INSERT TYPE, E.G., 10-10-10! shall be spread over the repaired area at the rate of !INSERT NUMBER! pounds per 1000 square feet and the re-sodded areas watered either by natural rainfall or the artificial application of at least !INSERT AMOUNT! of water per week for at least !INSERT NUMBER! weeks. Shoulders that have become high enough to interfere with drainage shall be trimmed to the designed shape.

c. Soil-Aggregate Shoulders. Maintain and repair soil-aggregate shoulders by repairing damaged and rutted areas by grading and filling with soil aggregate material of equal or better quality to that replaced. Shoulders that have become high enough to interfere with drainage shall be trimmed to the designed shape. The trimmed off material may be used to fill ruts and low spots.

d. Bituminous Shoulders. Maintain and repair bituminous shoulders by repairing damaged and rutted areas. The areas shall be repaired by sealing cracks and patching with bituminous materials and procedures as described in paragraph C.11.a of this section.

C.14 GENERAL REQUIREMENTS FOR DRAINAGE SYSTEMS. The Contractor shall inspect, maintain, and repair the drainage systems described in Attachment J-C1 so that they will function efficiently and as originally designed. Alteration services shall also be provided when ordered. Drainage systems include paved ditches and open channels, drop inlets, culverts, head walls, concrete box culverts, and bridges; and are limited to surface drainage.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: The user may consider allowing the Contractor to use herbicides to control vegetation in and around drainage systems. However, many states have stringent licensing requirements for herbicide application. Refer to the Grounds Maintenance and Pest Control GPWSs for guidance in herbicide use.  
\*\*\*\*\*!

a. Inspections. The Contractor shall inspect all drainage systems and components semiannually, once in the spring and once in the fall; and after each rainfall of !INSERT NUMBER! inches or more within a 24 hour period. Historically, there have been !INSERT NUMBER! rainfalls per year with this intensity. Inspections shall include the removal and disposal of grass, weeds, brush, sediment, debris, and other accumulations that obstruct the flow of water; and the identification and extent of any drainage system deficiencies, such as defective supports, deteriorated and/or damaged culverts, head walls, grates, drop inlets, etc. All work associated with drainage system inspections is included in firm fixed-price portion of the contract as recurring work, and is subject to Service Contract wage rates.

(1) Schedule and Completion Requirements. A schedule indicating proposed dates for semiannual inspections for each type of drainage system shall be submitted for the Contracting Officer's approval within !INSERT NUMBER! calendar days after award of the contract. Other inspections shall be completed within !INSERT NUMBER! working days after the stipulated rainfall intensity.

(2) Clearing. Debris and sediment shall be cleared and removed from the inside of and up to 15 feet on each end of culverts, and brush shall be removed within 5 feet of headwalls and end sections. Debris shall be removed from the abutments and bents of bridges and box culverts for up to 15 feet upstream and downstream, and up to 10 feet on each end. All materials removed during inspections shall be disposed of off Government property the same day removed.

(3) Inspection Report. A written report of all drainage system deficiencies discovered shall be submitted to the Contracting Officer within !INSERT NUMBER! working days after the required inspection completion date specified above. The report shall provide a complete description of each deficiency identified by structure and location. The Contracting Officer may issue service call work authorizations or delivery orders for indefinite quantity unit priced labor, as appropriate, for correction of the deficiencies noted; the work may be performed by means other than this contract; or the work may be deferred due to lack of funds, etc.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER. NFGS 02720, Storm Drainage System provides guidance on different types of pipe culvert materials and installation procedures. The user should refer to the NFGS when determining specific culvert requirements for the activity. The material and installation procedures shown below are provided for illustration only.  
\*\*\*\*\*!

b. Removal and Replacement of Pipe Culverts. Existing pipe culverts shall be removed and replaced when ordered under the indefinite quantity - unit priced tasks portion of the contract. Work shall be completed within !INSERT NUMBER! working days after receipt of each individual order.

(1) Materials

(a) Backfill and Fill. Furnish backfill and fill materials that are free of debris, roots, wood, scrap materials, and other vegetable matter and refuse; and are compactable to the specified densities. Maximum particle size shall be 2 inches.

(b) Reinforced Concrete Pipe. Pipe shall conform to ASTM Specification C76, Class 1, and shall be of sizes shown in the Schedule of Indefinite Quantity Work - Unit Priced Tasks, Section B.

(c) Corrugated Steel Pipe. Pipe and coupling bands shall conform to Federal Specification WW-P-405, Class I or II, Shape 1 or 3, Coating A, and shall be of the sizes and gages as shown in the Schedule of Indefinite Quantity Work - Unit Priced Tasks, Section B.

(2) Installation

(a) Removal of Existing Pipe and Excavation. Remove existing pipe and fittings and dispose of off Government property. Excavate the areas designated for new culverts. The excavation shall be kept free of water while installing the backfill and new pipe. All unsuitable material shall be removed to a depth of 8 inches below the bottom of the pipe and replaced with suitable backfill material. The backfill material under the pipe shall be compacted to 95% of the maximum laboratory density, determined in accordance with ASTM D 1557, Method B or D, to a depth of 8 inches below the bottom of the pipe.

(b) Placing Pipe. Each section of pipe shall be carefully examined before being laid and defective or damaged pipe shall not be used. Proper facilities shall be provided for lowering sections of pipe into trenches. Lifting lugs in vertically elongated metal pipe shall be placed in the same vertical plane as the major axis of the pipe. Under no circumstances shall pipe be laid in water, and no pipe shall be laid when trench conditions and/or weather are unsuitable. Pipe shall be laid true to the grades indicated and shall rest upon the pipe bed for the full length of each section. Runs of pipe shall be laid with outside laps or grooved ends upgrade beginning at the lower end of the pipe line. Pipe having its grade and/or joint disturbed after laying shall be taken up, cleaned, and relaid. When pipes are protected by head walls or connect with drainage structures, the exposed ends of the pipe shall be placed or cut flush with the face of the structure. After the pipe is cut, the rough edges shall be smoothed up in an approved manner. All pipe shall be laid so that markings are on top and the inner surfaces abut neatly, tightly, and smoothly. All pipe in place shall be inspected and approved before being covered and concealed.

1 Corrugated Metal Pipe. Pipe shall be butted to form a smooth joint; the space between the pipe and coupling bands shall be kept free from dirt and grit so that the corrugations fit snugly. The coupling band while being tightened shall be tapped with a soft-head mallet of wood, rubber, or plastic to take up slack and insure a tight joint. The annular space between abutting sections of paved invert pipe in sizes 30 inches and larger shall be filled with bituminous material after jointing. Coupling band bolts and damaged areas of the coupling bands and pipe shall be given a coating of asphalt cement. Pipe on which the asphalt coating has been damaged to such extent that satisfactory field repairs cannot be made will be rejected.

2 Concrete Pipe. Joint installation shall be in accordance with the recommendations of the manufacturer of the joint material. Surfaces to receive lubricants, cements, or adhesives shall be clean and dry. Gaskets and jointing materials shall be affixed to the pipe not more than 24 hours prior to the installation of the pipe, and shall be protected from the sun, blowing dust, and other deleterious agents at all times. Gaskets and jointing materials shall be inspected before installation of the pipe, and any loose or improperly affixed gaskets and jointing materials shall be removed and replaced. The pipe shall be aligned with the previously installed pipe, and the joint pulled together. If, while making the joint, the gasket or jointing material becomes loose and can be seen through the exterior recess when the joint is pulled up to within 1 inch of closure, the pipe shall be removed and the joint remade.

(c) Backfilling. Backfill shall be placed and compacted in not more than 6 inch thick lifts, being careful to place backfill material completely under and around the pipe. The backfill shall be compacted at or near the optimum water content in order to obtain at least 95% of the maximum

laboratory density of the backfill material as determined by ASTM-D1557, Method B or D.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: Review the user considerations in paragraph III.C.2.c of the User's Guide. Specific data on sweeping quantities, frequencies, etc. must be included in either an Attachment in Section J or in the following clause. Carefully tailor the following requirements to meet specific user needs.  
\*\*\*\*\*!

C.15 GENERAL REQUIREMENTS FOR PAVEMENT SWEEPING SERVICES. The Contractor shall sweep runway, taxiway, apron, road, street, parking, open storage, and other surfaced areas on both a scheduled and unscheduled basis. Scheduled sweeping services are included in the firm fixed-price portion of the contract, and unscheduled services are included in the indefinite quantity - unit priced tasks portion of the contract. All work is subject to Service Contract wage rates.

a. Airfield Pavement. Scheduled airfield sweeping services shall be provided in accordance with the schedule provided in Attachment J-C10. Unscheduled services shall be performed when ordered by the Contracting Officer in accordance with the response times provided in Attachment J-C10. Sweeping services shall be provided as scheduled and when ordered regardless of weather conditions, except during periods in which the severity of weather precludes aircraft operations. Magnetic and nonmagnetic sweeping shall be performed simultaneously each time services are provided. The sweeping operation shall be patterned so as to sweep all portions of the designated areas at speeds which shall not exceed those specified in Attachment J-C10. All sand, soil, aggregates, grass, metals, and other foreign matter shall be removed by the sweeping operation, including materials from aircraft tie-down points (pad-eyes). No dust spread shall result from sweeping operations. The Contractor shall advise the Contracting Officer of any unusual deterioration of pavement surfaces or of the development of "fish-pond" depressions in surfaces which cause difficulties in wet weather sweeping.

(1) Special Requirements

(a) Sweeper operators shall attend a !INSERT NUMBER HOURS! training course provided by the Government on radio communications and airfield operation procedures prior to their assignment to sweeping duties. Sweeper operators shall maintain radio contact with the !INSERT OFFICE NAME! continuously during sweeping operations. Radios shall be used for official business only.

(b) The Contractor shall notify the !INSERT OFFICE NAME! at least !INSERT! hours prior to sweeping in the vicinity of arresting gear equipment, and within !INSERT! hours after completion of sweeping in these areas to allow for derigging and rerigging of arresting gear cables by the Government.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: If sweeping debris is to be disposed of off base, tailor the following paragraph accordingly.  
\*\*\*\*\*!

(c) Sweepers shall be emptied as needed for proper operation. Nonmagnetic debris shall be disposed of at an on base area designated by the Contracting Officer, which is located within !INSERT DISTANCE! of the airfield.

Magnetic debris shall be containerized and delivered by the Contractor to the Defense Reutilization and Marketing Office (DRMO) on the base.

!\*\*\*\*\*  
 NOTE TO SPECIFICATION WRITER: If the user intends to provide Government furnished sweepers, refer to paragraph C.4.b and change the following paragraph accordingly. Ensure that equipment maintenance responsibilities are clearly defined.  
 \*\*\*\*\*!

(2) Equipment Requirements

(a) Sweepers. The Contractor shall provide sweepers specifically designed for sweeping airfield pavements, including magnetic sweeping. Sweepers shall be capable of sweeping without creating dust spread and of operating during and after periods of precipitation. Sweepers shall be equipped with safety markings and lighting in accordance with local requirements. The number and size of sweepers shall be sufficient to meet both the scheduled and unscheduled sweeping requirements specified in Attachment J-C10.

(b) Radios. The Government will make available and install two-way radios on each of the Contractor's sweepers. In the event sweepers must be removed from Government property, the Contractor shall notify the Contracting Officer at least !INSERT TIME! in advance so that radios may be removed. Radio maintenance and repair will be furnished by the Government. Radio malfunctions shall be reported to the Contracting Officer.

(3) Property Damage. The Contractor shall be liable for and reimburse the Government for the actual cost of repair to Government property damaged during sweeping operations, including, but not limited to aircraft, airfield lighting, signs, arresting gear equipment, and vehicles.

b. Roads, Streets, Parking Areas, and Open Storage Areas. Scheduled sweeping services for roads, streets, parking areas, and open storage areas shall be provided at the locations and in accordance with the frequencies specified below. Within !INSERT NUMBER! calendar days after award of the contract, the Contractor shall provide a schedule for the Contracting Officer's approval which indicates the proposed dates for the accomplishment of all scheduled sweeping services for the term of the contract. Once approved by the Contracting Officer, the sweeping schedule shall be strictly adhered to in order to facilitate the Government's inspection of the work. All sand, soil, aggregates, grass, metals, and other foreign matter shall be removed utilizing equipment especially designed for this purpose. Sweeping shall be completed on each parking and open storage area on the same day commenced.

(1) Nonmagnetic Sweeping. Sweepers shall be emptied as needed for proper operation at the on base location indicated by the Contracting Officer.

<u>AREA</u>	<u>FREQUENCY</u>	<u>APPROXIMATE NUMBER OF UNITS PER OCCURRENCE</u>	<u>UNIT OF MEASURE</u>
<u>Roads/Streets</u>			
Main Street (VIP Route) (30' Wide x 5.0 Miles)	1 per Month	10	CURB-MILE

<u>AREA</u>	<u>FREQUENCY</u>	<u>APPROXIMATE NUMBER OF UNITS PER OCCURRENCE</u>	<u>UNIT OF MEASURE</u>
<u>Roads/Streets</u>			
First Street (30' Wide x 2.0 Miles)	1 per Quarter	4	CURB-MILE
Second Street (24' Wide x 1.5 Miles)	1 per Quarter	3	CURB-MILE
"A" Street (24' Wide x 2.0 Miles)	1 per Quarter	4	CURB-MILE
!ETC!			

Parking Areas

Building 100 (HQ)	1 per Month	5,000	SY
Building 101 (NAS)	1 per Quarter	8,000	SY
Building 102 (CPO)	1 per Quarter	6,000	SY
Building 103 (Chapel)	1 per Month	3,000	SY
!ETC!			

Open Storage Areas

Building 104 (Warehouse)	1 per Quarter	20,000	SY
!ETC!			

(2) Magnetic Sweeping. All metal scrap collected during magnetic sweeping operations shall be containerized and delivered by the Contractor to the DRMO on the base.

<u>AREA</u>	<u>FREQUENCY</u>	<u>APPROXIMATE NUMBER OF UNITS PER OCCURRENCE</u>	<u>UNIT OF MEASURE</u>
<u>Roads/Streets</u>			
First Street (from DRMO to Railroad)	1 per Quarter	1	CURB-MILE
!ETC!			
<u>Open Storage Areas</u>			
DRMO Scrap Yard Area	1 per Quarter	5,000	SY
!ETC!			

(3) Unscheduled Sweeping Services. Unscheduled sweeping services, which are included in the indefinite quantity portion of the contract, will be ordered by the Contracting Officer when sweeping is required between scheduled services, and when sweeping is required on those surfaces not covered by scheduled services. The work shall be provided to the same quality standards as specified for scheduled sweeping services.

C.16 GENERAL REQUIREMENTS FOR TRAFFIC SERVICES. The Contractor shall maintain and repair traffic signs and pavement markings. Work shall be performed on roads and streets in strict conformance with *the Manual of Uniform Traffic Control Devices for Streets and Highways* and on airfields in strict conformance with NAVAIR 51-50AAA-2, *General Requirements for Shorebased Airfield Marking and Lighting*. All work specified in this clause is included in the indefinite quantity portion of the contract.

a. Signs. The Contractor shall install all types of traffic signs as ordered by the Contracting Officer. Signs, including posts, shall be of the same size and of equal or better quality as the signs replaced.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: NFGS 02577, *Pavement Markings (Airfield and Roads)*, provides guidance on the different types of pavement marking materials and application procedures. The user should refer to this NFGS to determine what specific materials and procedures are needed for the activity. The materials and application procedures shown below are provided for illustration only.  
\*\*\*\*\*!

b. Pavement Markings

(1) Material and Equipment. Paints for airfields and roads and streets shall conform to Federal Specification TT-P-85, color as ordered. Reflective media shall conform to Federal Specifications TT-B-1325, Type III, Gradation A for airfields and Type I, Gradation A for roads and streets. The Contractor shall provide written certification from the paint and reflective media manufacturer that the materials meet these specifications. Paint applicators shall be of the size and type suitable for the particular work.

(2) Application

(a) Surface Preparation. Thoroughly clean surfaces to be marked before application of the paint. Remove dust, dirt, and other granular surface deposits by sweeping, blowing with compressed air, rinsing with water, or a combination of these methods as required. Remove !ADD OR DELETE AS REQUIRED! rubber deposits, existing paint markings, residual curing compounds and other coatings adhering to the pavement by waterblasting. Scrub affected areas where oil or grease is present with several applications of trisodium phosphate solution or other approved detergent or degreaser and rinse thoroughly after each application. After cleaning oil-soaked areas, seal with shellac or primer recommended by the manufacturer to prevent bleeding through the new paint. Do not commence painting in any area until pavement surfaces are dry and clean and have been inspected and approved by the Contracting Officer.

(b) Reflective Marking Rates. Apply paint evenly to the pavement area to be coated at a rate of 105 (± 5) square feet per gallon. Apply glass

spheres uniformly to the wet paint on airfield pavement at a rate of 10, and on road and street pavement at a rate of 6 (± 0.5) pounds of glass spheres per gallon.

(c) Nonreflective Marking Rates. Apply paint evenly to the pavement surface to be coated at a rate of 105 (± 5) square feet per gallon.

(d) Painting. Apply paint pneumatically with approved equipment at a rate of coverage specified herein. Provide guidelines and templates as necessary to control paint application. Manually paint numbers and letters. Sharply outline all edges of markings. The maximum drying time requirements of the paint specifications shall be strictly enforced to prevent undue softening of bitumen and pickup, displacement, or discoloration by tires of traffic. Discontinue painting operations if there is a deficiency in drying of the markings until cause of the slow drying is determined and corrected.

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: The NAVFAC Uniform Contract Format Guide (UCFG) specifies a number of additional clauses which may be included in Section C, including the following:

- |  |                                       |
|--|---------------------------------------|
| PERFORMANCE EVALUATION MEETINGS        | INSURANCE                             |
| DIRECTIVES                             | STATION REGULATIONS                   |
| ENVIRONMENTAL PROTECTION               | PERMITS                               |
| DISPOSAL                               | SAFETY REQUIREMENTS AND REPORTS       |
| SECURITY REQUIREMENTS                  | PASSES AND BADGES                     |
| IDENTIFICATION OF CONTRACTOR EMPLOYEES | IDENTIFICATION OF CONTRACTOR VEHICLES |
| CONTRACTOR EMPLOYEES                   |                                       |

Since these clauses are subject to change and are readily available in the UCFG, they have not been included in this GPWS.

\*\*\*\*\*!

END OF SECTION C

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J: LIST OF ATTACHMENTS

!\*\*\*\*\*

NOTE TO SPECIFICATION WRITER: The numbering system used below is designed so that the number of the Attachment refers back to the Section that it supports. Attachment J-C1 supports Section C and is the first Attachment referenced in that Section. The user should include those Attachments marked "\*", as required.

\*\*\*\*\*!

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ATTACHMENT J-1

DEPARTMENT OF LABOR WAGE DETERMINATIONS

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: Choose one of the following.  
\*\*\*\*\*!

Attached is Davis-Bacon Act Wage Determination !INSERT NUMBER! and Service Contract Act Wage Determination !INSERT NUMBER!. These determinations specify the minimum wages and fringe benefits to be paid under this contract.

OR

Attached is Davis-Bacon Act Wage Determination !INSERT NUMBER!. A Service Contract Act Wage Determination has been requested from the Department of Labor and will be incorporated by amendment upon receipt. These determinations specify the minimum wages and fringe benefits to be paid under this contract.

OR

Attached is Service Contract Act Wage Determination !INSERT NUMBER!. This determination specifies the minimum wages and fringe benefits to be paid under this contract.

ATTACHMENT J-C1

LIST OF FACILITIES TO BE MAINTAINED

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: List all facilities that will be maintained under this contract. Include applicable drawings, such as station site plans showing the general location of pavements and drainage systems included in the contract. The facilities shown below are for illustration only.  
\*\*\*\*\*!

The following facilities shall be maintained under this contract:

1. Pavements

A. Bituminous Pavements

- (1) Airfield
  - (a) Runways 650000 SY
  - (b) Taxiways 290000 SY
  - (c) Aprons 35000 SY
- (2) Roads and Streets 275000 SY
- (3) Parking Areas 100000 SY
- (4) Open Storage Areas 41000 SY
- (5) Sidewalks 9000 SY

B. Rigid Pavements

- (1) Airfield
  - (a) Runways 0 SY
  - (b) Taxiways 0 SY
  - (c) Aprons 300000 SY
- (2) Roads and Streets 100000 SY
- (3) Parking Areas 50000 SY
- (4) Open Storage Areas 10000 SY
- (5) Sidewalks 20000 SY

2. Miscellaneous Surfaces

- A. Earth Surfaces (Roads) 1000 SY
- B. Soil Aggregate Surfaces
  - (1) Roads and Streets 3000 SY
  - (2) Parking Areas 20000 SY

(3) Open Storage Areas 10000 SY

3. Shoulders

A. Earth 10000 SY  
B. Sod 13000 SY  
C. Soil Aggregate 13000 SY  
D. Bituminous (Airfield) 220000 SY

4. Drainage Systems

A. Paved Ditches and Channels  
(4' to 20' Wide) 3 MILES  
B. Drop Inlets 600 EACH  
C. Road and Airfield Culverts  
(18" - 48" Diameter) 50 EACH  
D. Road and Airfield Culverts  
(60" - 84" Diameter) 15 EACH  
E. Concrete Box Culverts 3 EACH  
F. Headwalls (Masonry) 70 EACH  
G. Metal End Sections 60 EACH  
H. Bridges, Concrete 5 EACH  
(20' - 40' Span)

5. Related Drawings. The following related drawings are available for review by prospective bidders at !NAME OF ACTIVITY!. Three sets of these drawings will be furnished to the Contractor within 15 calendar days after award.

<u>NAVFAC</u> <u>DRAWING NUMBER</u>	<u>SHEET NUMBER</u>	<u>PWD DRAWING</u> <u>NUMBER</u>	<u>DRAWING TITLE</u>
5119202	1 of 4	F-2625	Site Plan, Sheet 1 of 2
5119203	2 of 4	F-2626	Site Plan, Sheet 2 of 2
5119204	3 of 4	F-2627	Airfield Sweeping Plan
5119205	4 of 4	F-2628	Site Plan, Drainage Structures

!ETC!

ATTACHMENT J-C2

GOVERNMENT-FURNISHED FACILITIES

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: List all facilities that are to be provided to the Contractor. Provide descriptive characteristics and provide simple drawings of each facility showing Contractor areas, areas retained for use by the Government, etc.  
\*\*\*\*\*!

The following facilities will be made available for use by the Contractor, as specified in the "GOVERNMENT FURNISHED PROPERTY AND SERVICES" clause, Section C.

<u>LOCATION</u>	<u>SQUARE FEET</u>	<u>DESCRIPTION</u>	
Bldg 5/Naval Station	1100	Office Space(1)	400 SF
		Rest Room (1)	100 SF
		Vehicle/Equipment	600 SF
		Maintenance Area	_____
		TOTAL =	1100 SF
North of Bldg 5/ Naval Station	20000	Equipment and Material Storage Area	

!ETC!

ATTACHMENT J-C3

GOVERNMENT-FURNISHED EQUIPMENT

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: List all equipment that will be provided to the Contractor. Provide descriptive characteristics including manufacturer, model type, age, location, etc.  
\*\*\*\*\*!

The following items of equipment will be made available for use by the Contractor, as specified in the "GOVERNMENT FURNISHED PROPERTY AND SERVICES" clause, Section C.

<u>ITEM</u>	<u>MODEL NUMBER</u>	<u>BRAND NAME</u>	<u>AGE</u>	<u>LOCATION</u>
Asphalt Kettle (500 gallons) with Pump, Hose, and Nozzles	Unknown	Unknown	20 years	Bldg 5
Vibratory Plate Compactor (2 each)	Unknown	Unknown	10 years	Bldg 5

!ETC!

ATTACHMENT J-C4

GOVERNMENT-FURNISHED MATERIAL

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: List all materials that are to be provided to the Contractor. Provide descriptive characteristics including generic name, federal or commercial specifications (if applicable), and quantities of issue.  
\*\*\*\*\*!

The following material will be made available for use by the Contractor, as specified in the "GOVERNMENT FURNISHED PROPERTY AND SERVICES" clause, Section C.

<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>LOCATION</u>
Crushed Stone (for Base Bourse)	100 CY	Adjacent to Building 5
Patching Material (Cold Mix)	200 TONS	Adjacent to Building 5
Barricades (16' Long)	4 SETS	Building 5
Construction Signs	20 EACH	Building 5
Traffic Control Signs	50 EACH	Building 5

!ETC!

ATTACHMENT J-C5

LIST OF REQUIRED RECORDS AND REPORTS

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: The format, frequency, and specific data to be recorded and reported by the Contractor should be tailored by the user in order to obtain the information considered pertinent, and to enable the activity to periodically monitor the Contractor's operations. Keeping in mind that numerous reports cost money, keep requirements at a minimum.  
\*\*\*\*\*!

**RECORDS**

<u>SPECIFICATION REFERENCE</u>	<u>RECORD TITLE</u>	<u>WHEN SUBMITTED</u>	<u>EXAMPLE ATTACHED</u>
a. C.15.a(2)	Property Record for Radios	As radios are installed	No

!ETC!

**REPORTS**

<u>SPECIFICATION REFERENCE</u>	<u>RECORD TITLE</u>	<u>WHEN SUBMITTED</u>	<u>EXAMPLE ATTACHED</u>
a. C.14.a	Condition of Drainage System	Within !INSERT NUMBER! working days after required inspection completion date	No
b. C.15.a	Condition of Airfield Pavements	As Needed	No

!ETC!

ATTACHMENT J-C6

EMERGENCY/SERVICE WORK AUTHORIZATION FORM

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: Include an Emergency/Service Work Authorization  
Form, NAVFAC 11014/21 (Rev. 6-75) or other appropriate work authorization form.  
\*\*\*\*\*!

ATTACHMENT J-C7

HISTORICAL DATA

!\*\*\*\*\*

NOTE TO SPECIFICATION WRITER: This attachment includes sample formats for displaying historical or projected workload data. **Accurate** and complete historical data is essential in the development of realistic Contractor bids. If complete information is not available, projections should be made based on the data that is available, and some system established to capture required historical information for future contracts. When determining the number of calls of each classification be sure to consider the tailored service call and classification definitions in Section C clause C.8, especially if definitions have been changed from previous contracts.

\*\*\*\*\*!

The data in this attachment is taken from the activity's records for the surfaced areas to be maintained under this contract. It is not considered sufficiently accurate for bidding purposes by itself, but is included to indicate the types, approximate order of magnitude, and seasonal trends in the workload.

1. SERVICE CALL WORK

**NUMBER OF SERVICE CALLS PER MONTH**

	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
<b>Emergency</b>													
1990	3	5	7	8	6	5	6	5	4	7	7	4	67
1991	3	4	6	9	5	3	4	6	4	5	6	4	59
<b>Urgent</b>													
1990	7	9	14	15	11	9	10	12	7	14	14	9	131
1991	6	10	12	18	10	7	8	10	9	11	12	9	122
<b>Routine</b>													
1990	18	21	23	27	26	20	18	15	13	20	22	16	239
1991	17	19	24	28	26	19	17	16	11	18	25	17	237
<b>TOTALS:</b>													
1997	28	35	44	50	43	34	34	32	24	41	43	29	437
1998	26	33	42	55	41	29	29	32	24	34	43	30	418

**TRADE/CRAFT**

The various trades listed below were used in performing the service calls shown in the chart above. Some calls involved more than one trade.

- |           |                          |              |
|-----------|--------------------------|--------------|
| Carpenter | Flagger                  | Laborer      |
| Painter   | Power Equipment Operator | Truck Driver |

**DAVIS-BACON SERVICE CALLS**

Approximate percentage of service calls subject to Davis-Bacon wage rates.

<u>1990</u>	<u>1991</u>
12%	15%

**PERCENTAGE OF CALLS RECEIVED AFTER REGULAR HOURS**

Approximate percentage of service calls received after regular working hours and on weekends/holidays.

	<u>1990</u>	<u>1991</u>
Emergency	8%	9%
Urgent	4%	5%
Routine	0%	0%

**ACTUAL HOURS REQUIRED FOR COMPLETION**

Actual hours required for completion of service calls. This must not be confused with the EPS **estimated** hours required for completion, as discussed in the GENERAL REQUIREMENTS AND PROCEDURES FOR SERVICE CALL WORK clause, Section C.

	<u>1990</u>	<u>1991</u>
0 - 4 Hours	63%	64%
4 - 8 Hours	25%	24%
8 - 16 Hours	11%	11%
Over 16 Hours	1%	1%

2. INDEFINITE QUANTITY WORK - UNIT PRICED LABOR

<u>CRAFT</u>	<u>NUMBER OF JOBS</u> <sup>1</sup>
Asphalt Lay Down Man	! INSERT!
Asphalt Raker	! INSERT!
Carpenter	! INSERT!
Concrete Finisher	! INSERT!
Flagger	! INSERT!
Laborer	! INSERT!
Equipment Operator	! INSERT!
Truck Driver	! INSERT!

<sup>1</sup> Craft involvement only; not total jobs.

<u>TRAVEL ZONE</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>TOTAL</u>
No. of jobs performed								
Total unit priced labor hours/zone								

<u>JOB SIZE</u> <u>(UNIT PRICED LABOR HOURS)</u>	<u>(0-16)</u>	<u>(17-31)</u>	<u>(32-80)</u>	<u>(81-120)</u>	<u>(121-160)</u>	<u>TOTAL</u>
1990 (Number of Jobs)						
1991 (Number of Jobs)						

ATTACHMENT J-C8

DELIVERY ORDER QUANTITIES AND COMPLETION TIMES

!\*\*\*\*\*  
 NOTE TO SPECIFICATION WRITER: List the minimum and maximum number of units and required completion time per delivery order for each indefinite quantity work item. When determining these quantities remember that the applicable wage rate (either Service Contract or Davis-Bacon) may limit the minimum or maximum quantity that may be ordered. See User's Guide paragraph III.B.4 for additional information. The quantities and times shown in the following example are provided for illustration only.  
 \*\*\*\*\*!

This Attachment specifies the minimum and maximum quantities of work that the Government may order per delivery order for indefinite quantity work. The "ALLOWED COMPLETION TIME" column indicates the number of working days that will be allowed to complete all the work ordered, from date of Contractor's receipt of the delivery order to final work completion. If multiple items are ordered on a single delivery order, completion times shall run concurrently. Quantities and response times for unscheduled airfield sweeping, CLIN 0002EA, is shown in Attachment J-C10.

<u>CONTRACT</u> <u>LINE ITEM</u>	<u>CONTRACT</u> <u>REQUIREMENT</u>	<u>MINIMUM</u> <u>QUANTITY</u>	<u>MAXIMUM</u> <u>QUANTITY</u>	<u>ALLOWED</u> <u>COMPLETION TIME</u> <u>(Working Days)</u>
<u>A. Bituminous Pavements</u>				
0002AA	Sealing Cracks	500 LF	10000 LF	15
0002AB	Temporary Patching (Up to 4 SF)	3 EA	50 EA	15
!ETC!				
<u>B. Rigid Pavements</u>				
0002BA	Sealing Joints and Cracks	100 LF	10000 LF	15
0002BB	Patching with Concrete (Shallow, up to 4 SY)	3 EA	20 EA	10
!ETC!				
<u>C. Miscellaneous Surfaces</u>				
0002CA	Unscheduled Grading of Earth Surfaces	500 SY	4000 SY	10
0002CB	Unscheduled Grading of Soil Aggregate Surfaces	500 SY	4000 SY	10

<u>CONTRACT</u> <u>LINE ITEM</u>	<u>CONTRACT</u> <u>REQUIREMENT</u>	<u>MINIMUM</u> <u>QUANTITY</u>	<u>MAXIMUM</u> <u>QUANTITY</u>	<u>ALLOWED</u> <u>COMPLETION TIME</u> <u>(Working Days)</u>
D. <u>Drainage Systems</u>				
0002DA	Remove and Replace 12" Bituminous Coated, Corrugated Metal Pipe, 16 Gage	15 LF	100 LF	20
0002DB	Remove and Replace 18" Bituminous Coated, Corrugated Metal Pipe, 14 Gage	15 LF	65 LF	20
!ETC!				
E. <u>Unscheduled Sweeping</u>				
0002EB	Unscheduled Nonmagnetic Sweeping of Roads	5 CURB MILE	100 CURB MILE	5
0002EC	Unscheduled Nonmagnetic Sweeping of Parking and Open Storage Areas	1000 SY	20000 SY	5
!ETC!				
F. <u>Traffic Services</u>				
0002FA	Furnish and Apply Traffic Stripping, 4" Wide, White and Yellow, Reflectorized	1000 LF	13000 LF	10
0002FC	Furnish and Apply Traffic Stripping, 4" Wide, White, Nonreflectorized	1000 LF	13000 LF	10
!ETC!				

NOTE: EA - Each  
 LF - Linear Foot  
 SF - Square Foot  
 SY - Square Yard

ATTACHMENT J-C9

ACTIVITY TRAVEL ZONE MAP

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: Attach a legible copy of the activity's EPS  
travel zone map.  
\*\*\*\*\*!

ATTACHMENT J-C10

AIRFIELD PAVEMENT SWEEPING

**FREQUENCY/SPEED (FIRM FIXED-PRICE WORK)**

<u>AREA/FREQUENCY/SPEED</u>	<u>SUNDAY</u>	<u>MONDAY</u>	<u>TUESDAY</u>	<u>WEDNESDAY</u>	<u>THURSDAY</u>	<u>FRIDAY</u>	<u>SATURDAY</u>
Area A* (100 Acres) Once weekly. Maximum speed not to exceed 15 MPH.							6:00 AM to 6:00 PM
Area B* (60 Acres) Two (2) times weekly (Sunday and Wednesday). Maximum speed not to exceed 15 MPH.	6:00 AM to 2:00 PM			12:00 PM to 6:00 AM			
Area C* (50 Acres) Once daily, six (6) says per week, during hours specified. Maximum speed not to exceed 15 MPH.	6:00 AM to 2:00 PM	12:00 PM to 6:00 AM					
Area D* (70 Acres) Once daily, six (6) days per week, during hours specified. Maximum speed not to exceed 5 MPH.	6:00 AM to 2:00 PM	6:00 AM to 3:00 PM	6:00 AM to 3:00 PM	6:00 AM to 3:00 PM	6:00 AM to 3:00 PM	6:00 AM to 3:00 PM	

\* Refer to airfield sweeping drawing number 5119204

**QUANTITIES AND RESPONSE TIME PER DELIVERY ORDER**

<u>Work Item</u>	<u>Minimum Quantity</u>	<u>Maximum Quantity</u>	<u>Response Time</u>
CLIN 0002EA	10 Acres	100 Acres	8 Hours

ATTACHMENT J-E1

LIST OF ENGINEERED PERFORMANCE STANDARDS HANDBOOKS

<u>PUBLICATION NUMBER</u>	<u>HANDBOOK NAME</u>
P-701.0	Planner-Estimator's Deskguide
P-702.0	Carpentry
P-703.0	Electrical, Electronic
P-704.0	Heating, Cooling & Ventilating
P-705.0	Service
P-706.0	Janitorial and Custodial Services
P-707.0	Machine Shop, Machine Repairs
P-708.0	Masonry
P-709.0	Moving and Rigging
P-710.0	Paint
P-711.0	Pipefitting and Plumbing
P-712.0	Roads, Grounds, Pest Control, and Refuse Collection
P-713.0	Sheet Metal, Structural Iron and Welding
P-714.0	Trackage
P-715.0	Wharf Building
P-716.0	Unit Price Standards (UPS)
P-717.0	Preventive/Recurring Maintenance

Publications are available from:

Navy            Standardization Document Order Desk  
                  Bldg 4, Section D  
                  700 Robbins Ave.  
                  Philadelphia, PA 19111-5094

Air Force      Air Force Publication Distribution Center  
                  2800 Eastern Blvd.  
                  Baltimore, MD 21220

Army            U.S. Army AG Publication Center  
                  1655 Woodson Road  
                  St. Louis, MO 63114

General        Superintendent of Documents  
                  U.S. Government Printing Office  
                  Washington, DC 20402

ATTACHMENT J-E2

PERFORMANCE REQUIREMENTS SUMMARY TABLE

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: A PRS table is included in this attachment as required by the NAVFAC P-68, *Contracting Manual*. See paragraph III.E of the User's Guide for additional information.  
\*\*\*\*\*!

The purpose of this attachment is to:

- a. List the contract requirements and work requirements considered most critical to satisfactory contract performance (See PRS Column 1).
- b. Summarize the standards of performance in the specification for each specified work requirement (See PRS Column 2).
- c. Provide maximum allowable defect rates (MADR) for each work requirement (See PRS Column 3). The MADR is the defect rate in a population of services which, when exceeded, indicates that the Contractor's quality control is unsatisfactory. The MADR does not represent a threshold for payment deductions. Deductions are taken for all defects (with appropriate credit for rework) regardless of whether the MADR was exceeded.
- d. Specify the percentage (weight) of contract requirement attributable to each listed work requirement (See PRS Column 4).

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: The percentages in the WEIGHT column are used in conjunction with the Schedule of Deductions to calculate payment deductions for partially performed work. Sample payment deduction calculations are shown in each of the sample quality assurance plans in the Quality Assurance Guide of this GPWS. The user should verify that the percentages shown are representative of the activity's requirements, and modify as required. The MADRs shown are suggested rates only.  
\*\*\*\*\*!

PERFORMANCE REQUIREMENTS SUMMARY TABLE

WORK REQUIREMENTS (Column 1)	STANDARDS OF PERFORMANCE (Column 2)	MAX ALLOW DEFECT RATE (Column 3)	WEIGHT (Column 4)
1. CONTRACT REQUIREMENT: EMERGENCY SERVICE CALLS			
A. Respond to calls within required time period	At job site within !INSERT TIME! with proper tools and equipment [Paragraph C.8.c(1)(a)]	2%	35% Item 1, Schedule of Deductions
B. Complete work within required time period	Completed within requirements for urgent or routine call, if appropriate [Paragraph C.8.c(1)]	2%	10% Item 1, Schedule of Deductions
C. Perform quality service call work*	Emergency condition arrested, work completed in conformance with quality standards, Section C	2%	45% Item 1, Schedule of Deductions
D. Proper procedures followed	Complete work authorization form and return within one working day (Paragraph C.8.d)	2%	10% Item 1, Schedule of Deductions
2. CONTRACT REQUIREMENT: URGENT SERVICE CALLS			
A. Respond to calls within required time period	At job site within !INSERT TIME! (regular hours) or !INSERT TIME! (after hours) with proper tools/equipment [Paragraph C.8.c(1)(b)]	3%	20% Item 2, Schedule of Deductions
B. Complete work within required time period	Prosecuted to completion and completed within !INSERT TIME! [Paragraph C.8.c(1)]	3%	10% Item 2, Schedule of Deductions
C. Perform quality service call work*	Work completed in conformance with quality standards, Section C	3%	60% Item 2, Schedule of Deductions
D. Proper procedures followed	Complete work authorization form and return within one working day (Paragraph C.8.d)	3%	10% Item 2, Schedule of Deductions
3. CONTRACT REQUIREMENT: ROUTINE SERVICE CALLS			
A. Complete work within required time period	Work completed within !INSERT NUMBER! working days [Paragraph C.8.c(1)(c)]	5%	15% Item 3, Schedule of Deductions
B. Perform quality service call work*	Work completed in conformance with quality standards, Section C	5%	75% Item 3, Schedule of Deductions

WORK REQUIREMENTS (Column 1)	STANDARDS OF PERFORMANCE (Column 2)	MAX ALLOW DEFECT RATE (Column 3)	WEIGHT (Column 4)
C. Proper procedures followed	Complete work authorization form and return within one working day (Paragraph C.8.d)	5%	10% Item 3, Schedule of Deductions
4. CONTRACT REQUIREMENT: GRADING OF MISCELLANEOUS SURFACES			
A. Complete work within required time period	Scheduled services completed per Contractor's approved schedule; unscheduled services completed within !INSERT NUMBER! days after receipt of order (Clause C.12)	10%	10% Item 4, Schedule of Deductions; Contract Line Items 0002CA and 0002CB
B. Perform quality work*	All areas graded in accordance with standards specified (Clause C.12)	10%	90% Item 4, Schedule of Deductions; Contract Line Items 0002CA and 0002CB
5. CONTRACT REQUIREMENT: MAINTENANCE OF DRAINAGE SYSTEMS			
A. Complete work within required time period	Work completed by date specified in Contractor's approved schedule and within !INSERT NUMBER! working days after qualifying rainfall (Paragraph C.14.a)	5%	20% Item 5, Schedule of Deductions
B. Perform quality work*	Drainage systems cleared and working properly, debris disposed of (Paragraph C.14.a)	5%	70% Item 5, Schedule of Deductions
C. Provide inspection reports	Report of drainage deficiencies completed and submitted within !INSERT NUMBER! working days after inspection completion date [Paragraph C.14.a(3)]	5%	10% Item 5, Schedule of Deductions
6. CONTRACT REQUIREMENT: SWEEPING OF AIRFIELD PAVEMENTS			
A. Complete work within required time period	Scheduled services completed per Attachment J-C10, unscheduled services responded to within !INSERT NUMBER! hours after receipt of order (Paragraph C.15.a)	2%	15% Item 6, Schedule of Deductions; Contract Line Item 0002EA

WORK REQUIREMENTS (Column 1)	STANDARDS OF PERFORMANCE (Column 2)	MAX ALLOW DEFECT RATE (Column 3)	WEIGHT (Column 4)
B. Perform quality work*	All areas swept clean, debris properly disposed of (Paragraph C.15.a)	2%	85% Item 6, Schedule of Deductions; Contract Line Item 0002EA
7. CONTRACT REQUIREMENT: SWEEPING ROADS, PARKING AREAS, AND OPEN STORAGE AREAS			
A. Complete work within required time period	Scheduled services completed per Contractor's approved schedule; unscheduled services completed within !INSERT NUMBER! days after receipt of order (Paragraph C.15.b)	5%	10% Item 7, Schedule of Deductions; Contract Line Items 0002EB, 0002EC, 0002ED, and 0002EE
B. Perform quality work*	All areas swept clean, properly disposed of (Paragraph C.15.b)	5%	90% Item 7, Schedule of Deductions; Contract Line Items 0002EB, 0002EC, 0002ED, and 0002EE
8. INDEFINITE QUANTITY WORK			
A. Complete work within required time period	Work completed by specified date (Clause C.10)	5%	20% of Unit Prices, Contract Line Items 0002 and 0003
B. Perform quality work*	Quality standards, Section C	5%	80% of Unit Prices, Contract Line Items 0002 and 0003

\* Unsatisfactory performance of this work requirement will result in an unsatisfactory rating for the entire contract requirement.

ATTACHMENT J-G2

INVOICING INSTRUCTIONS

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: A sample invoice format should be included in  
this Attachment, in a format similar to the contract line items in Section B. A  
well thought out invoice format simplifies verification of the amount billed and  
the calculation of payment deductions.  
\*\*\*\*\*!

ATTACHMENT J-H1

DIRECTIVES, PUBLICATIONS, AND SPECIFICATIONS

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: List all directives, regulations, manuals, instructions, and specifications referred to in the specifications and indicate which are advisory and which are mandatory. The following list is not all inclusive and must be tailored to fit the user's needs. The latest issue of the documents should be used, but only after reviewing the latest issue to ensure that it will satisfy minimum essential requirements.  
\*\*\*\*\*!

Directives/Publications/Specifications listed here are classified as advisory (A) or mandatory (M). Those classified as advisory provide guidance as to the standards of performance the Government will use in evaluation of the Contractor's overall work performance. Those classified as mandatory must be complied with by the Contractor in the performance of this contract.

1. DEPARTMENT OF DEFENSE PUBLICATIONS

- NAVFAC MO-102, Maintenance and Repair of Surfaced Areas (M)
- NAVFAC MO-102.1, Asphalt Surfaced Roads and Parking Lots (M)
- NAVFAC MO-102.2, Jointed Concrete Roads and Parking Lots (M)
- NAVFAC MO-102.3, Asphalt Surfaced Air Fields (M)
- NAVFAC MO-102.4, Jointed Concrete Air Fields (M)
- NAVFAC MO-102.6, Asphalt Crack Repair (M)
- NAVFAC Design Manuals:
  - 5.04 Pavements (A)
  - 21 Airfield Pavement (A)
  - 21.03 Flexible Pavement Design for Airfields (A)
- Military Handbooks:
  - MIL-HDBK-1102/7 Concrete Pavement Repair Manual (M)

!ETC!

!\*\*\*\*\*  
NOTE TO SPECIFICATION WRITER: The specification should specify quality standards for the more significant materials that the Contractor will be required to furnish. Since material quantities will be relatively small for this type of contract, it is recommended that the user do this by specifying applicable State Department of Transportation requirements, as illustrated below. Otherwise, the user may specify applicable ASTM specifications.  
\*\*\*\*\*!

2. BITUMINOUS PAVEMENT SPECIFICATIONS

State of !INSERT STATE!, Department of Transportation, Standard Specifications for Road and Bridge Construction, dated !INSERT DATE!:

!LIST APPLICABLE SECTIONS! (M)

Federal Specifications:

SS-S-1401 Sealant, Joint, Non-Jet-Fuel-Resistant (M)  
Hot-Applied, for Portland Cement and Asphalt  
Concrete Pavements

SS-S-1614 Sealants, Joint, Jet-Fuel-Resistant, Hot-Applied, (M)  
for Portland Cement and Tar Concrete Pavements

!ETC!

3. RIGID PAVEMENTS

State of !INSERT STATE!, Department of Transportation, Standard Specifications for Road and Bridge Construction, dated !INSERT DATE!:

!LIST APPLICABLE SECTIONS! (M)

Federal Specifications:

!INSERT! Sealant; Silicone, Single Component, Cold-Applied (M)

!ETC!

4. BASE COURSE AND MISCELLANEOUS SURFACES. State of !INSERT STATE!, Department of Transportation, Standard Specifications for Road and Bridge Construction, dated !INSERT DATE!:

!LIST APPLICABLE SECTIONS! (M)

5. SHOULDERS

State of !INSERT STATE!, Department of Transportation, Standard Specifications for Road and Bridge Construction, dated !INSERT DATE!:

!LIST APPLICABLE SECTIONS! (M)

Federal Specifications:

O-F-241 Fertilizer, Mixed, Commercial (M)

!ETC!

6. DRAINAGE SYSTEMS

American Society for Testing and Materials (ASTM):

Publication C76 Reinforced Concrete Culvert, Storm Drain (M)  
and Sewer Pipe

!ETC!

Federal Specifications:

WW-P-405 Pipe, Corrugated (Iron or Steel, Zinc Coated) (M)

!ETC!

7. TRAFFIC SERVICES

American National Standards Institute (ANSI) Standards:

D6.1d-1986 Manual of Uniform Traffic Control Devices for Streets and Highways (M)

!ETC!

Naval Air System Command Publications:

NAVAIR 51-50AAA-2 General Requirements for Shorebased Airfield Marking and Lighting (M)

!ETC!

Federal Specifications:

TT-P-85 Painting, Traffic and Airfield Marking, Solvent Base (M)

TT-B-1325 Beads (Glass Spheres) Retro-Reflective (M)

!ETC!

END OF SECTION J

QUALITY ASSURANCE GUIDE  
GUIDE PERFORMANCE WORK STATEMENT FOR  
SURFACED AREAS MAINTENANCE SERVICES

QUALITY ASSURANCE GUIDE  
GUIDE PERFORMANCE WORK STATEMENT FOR  
SURFACED AREAS MAINTENANCE SERVICES

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QUALITY ASSURANCE GUIDE  
GUIDE PERFORMANCE WORK STATEMENT FOR  
SURFACED AREAS MAINTENANCE SERVICES

I. INTRODUCTION. Quality assurance (QA) is a program undertaken by the Government to provide some measure of the quality of goods and services purchased from a Contractor. To accomplish this the Government, in this case the naval shore activity contracting for surfaced areas maintenance services, must develop and implement a system that will ensure that the quantity and quality of the goods and services received comply with the requirements of the contract. This QA Guide is designed to assist the Facilities Support Contract Manager (FSCM) or other user in setting up the activity's QA program. The user is advised to refer to the NAVFAC Manual MO-327, *Facility Support Contract Quality Management Manual*, and the NAVFAC *Random Sampling for Extrapolated Deductions (RSED V3.2)* implementation guide for more detailed information on the development and implementation of a QA Program.

A. Overview. This Guide suggests specific methods for monitoring surfaced areas maintenance services and provides sample QA Plans. These sample plans must be tailored concurrently with the tailoring of the GPWS to develop a unique QA program that fits the needs of the activity. The Guide is divided into five parts:

1. The *INTRODUCTION* presents an overview and gives information on Quality Assurance Evaluator (QAE) staffing and training.

2. *QA PLAN DEVELOPMENT* discusses special considerations that affect the way in which surfaced areas maintenance may be monitored and suggests specific evaluation methods for each service included in this GPWS.

3. The *SAMPLE QA PLANS* include numerical examples, suggested evaluation work sheets, and sample Monthly Payment Deduction Forms for each service included in this GPWS. The Monthly Payment Deduction Forms illustrate how to use the Performance Requirements Summary (PRS) Table and inspection results to calculate deductions from the Contractor's invoice. The sample plans provided must be tailored by the user to conform with the tailored PWS.

4. *CONTRACTOR'S OVERALL PERFORMANCE* discusses how to use the QAE's inspection results to make an overall evaluation of Contractor performance, and provides a sample monthly summary report format.

5. *CONTRACTOR SUBMISSIONS* is a checklist of required submittals that the Contractor must provide at specific times during the contract.

B. QAE Training. Personnel tasked with monitoring the surfaced areas maintenance Contractor's performance must be experienced in surfaced areas maintenance and adequately trained in QA methods and procedures in order to effectively implement the activity's QA program.

1. NAVFAC P-68, *Contracting Manual*, requires all individuals assigned QAE duties to attend the QAE training course provided by each of the NAVFAC geographical Engineering Field Divisions (EFDs) within six months of their assignment, or have equivalent training as determined by the Contracting Officer. If this training has not been received, the activity should take steps to have the QAE(s) attend the next available course and in the meantime should develop a local training program. The EFD (Code 16) should be contacted for QAE

training scheduling or assistance. Additional training may also be required to ensure that appropriate technical expertise is available to inspect surfaced areas maintenance services.

2. In addition to being intimately familiar with the requirements of the specification, QAEs must also contact the Facilities Management Engineering Division and familiarize themselves with the procedures which will be used to order work, how the QAE will be notified when work has been completed and is ready for inspection, etc.

### C. QAE Organization and Staffing

1. The NAVFAC P-318, *Organization and Functions for Public Works Departments*, and NAVFAC P-68 discuss the responsibilities of the organizations and individuals responsible for the day-to-day administration of facilities support contracts. Ideally, QAEs should organizationally report to the FSCM or other individual in the activity's contract administration organization. However, in the case of airfield sweeping, it may be more practical for the QAE(s) to be appointed on a collateral duty basis from within the activity's Air Operations Department, especially if a number of sweepings will be accomplished after regular working hours and on weekends.

2. Regardless of where QAE's are located organizationally, the most well developed QA program will not be effective if QAE staffing is inadequate. Ideally QAE staffing should be based on a pre-determined number of contract inspections (QA plans) and related work requirements rather than on the availability of QAEs. Once adequate QA plans have been developed, the user should perform a staffing analysis to determine the required QAE staffing, then if appropriate, compare the results with the current effort. This analysis involves determining the average time needed to complete each of the inspections required (sample size or quantity of work) by each plan including travel time requirements, time required to prepare monthly reports and perform other administrative duties, time to perform any nonsurveillance duties, (e.g. training, safety meetings, preparing contract modifications, making award fee determinations, etc.), etc. The NAVFAC EFDs have experience in conducting these staffing analyses and should be contacted if assistance is needed.

II. QUALITY ASSURANCE PLAN DEVELOPMENT. Ideally, QA plan development should be accomplished concurrently with development of the PWS, and viewed as a single process. The two are closely interrelated since one (the PWS) defines required work outputs and quality standards while the other defines how work outputs will be observed and measured. Many of the inspection problems which tend to turn up after contract award can be avoided by careful up-front coordination between the specification and QA plan writers. Chapters 4 and 6 of NAVFAC MO-327 discuss methods of surveillance, inspection documentation, development of QAE schedules, and other issues related to the development of QA plans. The following discussion provides information relating specifically to surveillance of surfaced areas maintenance services.

A. Functional Considerations. Surfaced areas maintenance monitoring poses some unique requirements for the QAE. The following considerations are offered for the user's information.

1. Observing Work in Progress. Since it is difficult or impossible in many instances to determine if some services have been properly performed when inspecting after the fact, the QAE may find it necessary to actually observe the

work as it is being accomplished. Patching pavements and removing and replacing pipe culverts fall into this category.

## 2. Customer Complaint Program

a. Due to the nature of the services, a customer complaint program is likely to be of limited benefit in monitoring surfaced areas maintenance services. Most complaints and requests for services will likely come from personnel within the Public Works Department during the course of performing routine duties or conducting facilities condition surveys. However, one surfaced areas service for which customer complaints would likely be effective is airfield sweeping. In this case the customer, e.g. Air Operations, would call the QAE directly to report non-performed or unsatisfactory work. If properly established and administered, such a program could be of great benefit to the QAE by reducing the number of scheduled airfield sweeping inspections required.

b. Internal procedures for screening of service calls by the work reception center should be established to ensure that repeat calls for services previously completed by the Contractor are identified as such, and passed to the QAE for validation and rework, if appropriate. A customer complaint form, similar to that contained in Appendix H of NAVFAC MO-327, should be used to record actions taken on each complaint received. Of course, payment deductions may be made only on those complaints which are validated by the QAE.

3. Rework. As specified in the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES" clause in Section E, the Government may require the Contractor to reperform work that has been identified as being poorly performed or not performed, provided a reasonable amount of time is allowed for the rework to be completed. The following should be considered.

a. The QAE will be too busy performing surveillance during most of the day to stop and call the Contractor every time a deficiency is found or a complaint is received. Therefore, the Contractor should be notified of customer complaints and discrepancies found by the QAE only at the end of the working day, unless the deficiency could affect the health or safety of personnel, affect the activity's mission, and cannot wait until the next scheduled work day for correction. The easiest way to make the Contractor aware of all noted deficiencies in writing, as required by the "CONSEQUENCES" clause, is to provide copies of completed EVALUATION WORK SHEETS daily. As documentation that work sheets were received, the Contractor may be asked to sign and return each form. However, the QAE should not spend time "chasing down" the Contractor's representative to get these work sheets signed.

b. Rework should normally be allowed for defects in quality of work; however, defects in some work requirements, such as timely response and timely completion, obviously cannot be reworked.

c. Invoice payment deductions should always be made when a documented deficiency is not satisfactorily reworked. Liquidated damages should be deducted for all documented deficiencies, whether or not rework is accomplished.

B. Selection of Methods of Surveillance. Chapter 4 of NAVFAC MO-327 provides a general discussion of the five methods of surveillance available and the factors that influence which method(s) should be selected for use. The

factors influencing the selection of a method of surveillance for a given service include the number (population) of items to be inspected; the importance, characteristics, and location of the service; and the availability of QAE resources. Specific factors which influence the selection of evaluation methods for surfaced areas maintenance services are discussed below for each method of surveillance.

1. One Hundred Percent Inspection. One hundred percent inspection is generally used for those services which are considered very important, those which have relatively small monthly populations, and those included in the indefinite quantity portion of the contract. 100% inspection is recommended for the inspection of the following services included in this GPWS.

a. Emergency Service Calls. Since proper performance of emergency calls can affect the health and safety of personnel, as well as threaten activity operations/training, 100% inspection is recommended as the method of surveillance. If calls are properly classified, the small number of emergency calls at the typical activity should make 100% inspection easy to implement.

b. Grading of Miscellaneous Surfaces. Since the quantity of these services is small at the typical activity and relatively easy to inspect, it is recommended that 100% inspection be used.

c. Indefinite Quantity Work. Before the QAE can legitimately certify satisfactory completion of work on an indefinite quantity delivery order, the job obviously must be inspected at least once. Therefore, 100% inspection is recommended for surveillance of all indefinite quantity delivery orders, including those for unit priced labor, unscheduled grading of miscellaneous surfaces, and unscheduled sweeping services.

2. Random Sampling

a. Surveillance based on random sampling evaluates a portion of the work, accurately estimating Contractor performance through the use of statistical theory. Random sampling is most useful on large homogeneous populations where 100% inspection is not required or feasible. Also, if appropriate provisions are included in the specification and the random sampling is properly conducted, the percentage of defective work items found in the sample (less a small adjustment for inaccuracies) may be extrapolated and deducted from the Contractor's payment invoice. Details on the use of random sampling for extrapolated deductions (RSED) may be found in the NAVFAC RSED (V3.2) implementation guide.

b. It is unlikely that the population of any surfaced areas maintenance service would be large enough to apply random sampling techniques, unless these services were combined with similar services in a multi-function contract. Therefore, random sampling is not recommended as a method of surveillance in this GPWS.

3. Planned Sampling. Planned sampling is similar to random sampling in that it is based on evaluating a portion of the work as the basis for estimating the Contractor's performance. Samples are selected based on a subjective rationale and the sample size is arbitrarily determined. Planned sampling is useful when population sizes are not large enough or homogeneous enough to make random sampling practical. Planned sampling is recommended for the inspection of urgent and routine service calls, maintenance of drainage systems, and

sweeping of airfields, roads, and parking areas. 100% inspection should also be considered for these services since their population will be small at most activities.

4. Unscheduled Inspections. An unscheduled inspection is what the name implies. Since it does not provide any measure of the Contractor's performance it should be used only to support other methods and never as a primary method of surveillance. The QAE could perform unscheduled inspections while performing other QA duties.

5. Validated Customer Complaints. This method has limited value as a method of surveillance for surfaced areas maintenance services. See paragraph II.A.2 of this QA Guide.

C. Performance Requirements Summary. As noted previously in the User's Guide (paragraph III.E), the PRS table will be used primarily by the Contracting Officer in conjunction with the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES", "ESTIMATING THE PRICE OF NONPERFORMED OR UNSATISFACTORY WORK", and "SCHEDULE OF DEDUCTIONS" clauses, in making payment deductions for unsatisfactory performance or nonperformance of contract requirements. The table is also very useful in the preparation of QA plans since it summarizes the work requirements, standards of performance, and maximum allowable defect rates (MADRs) for each contract requirement. An sample PRS table, which reflects the contract requirements and work requirements of this GPWS, is provided in Attachment J-E2. Of course this table must be modified to reflect the requirements of the tailored PWS. NAVFAC MO-327 and the NAVFAC RSED (V3.2) implementation guide provide guidance on the development of PRS tables and calculation of payment deductions, and should be referred to by the user.

1. MADRs are defect rates above which the Contractor's quality control is considered unsatisfactory for any particular work requirement. The MADR selected for any particular work requirement should reflect both the expected population of services and the requirement's importance. For example, the MADR for timely emergency service call response should be smaller than that for urgent service call response. Note that MADRs do not affect sample sizes or the method of calculating payment deductions in any way. Suggested values are included in Attachment J-E2; however, these must be tailored by the user.

2. In the "WEIGHT" column the price of each work requirement is specified as a percentage of the price of the contract requirement with which it is associated. Careful consideration must be given to objectively assigning these percentages since they will be used in making payment deductions. One method which may be used is to calculate the cost of each work requirement using Engineered Performance Standards (EPS) and then use these costs to determine the percentage to be assigned to each work requirement. Values for timeliness work requirements will be the most difficult to determine since they are by nature subjective. The percentages suggested in Attachment J-E2 of this GPWS should be carefully reviewed and tailored by the user.

III. SAMPLE QUALITY ASSURANCE PLANS. There are eight sample QA plans provided in this GPWS. They are:

- QA Plan #1 - Emergency Service Calls
- QA Plan #2 - Urgent Service Calls
- QA Plan #3 - Routine Service Calls
- QA Plan #4 - Grading of Miscellaneous Surfaces

- QA Plan #5 - Maintenance of Drainage Systems
- QA Plan #6 - Sweeping of Airfield Pavements
- QA Plan #7 - Sweeping Roads, Parking Areas and Open Storage Areas
- QA Plan #8 - Indefinite Quantity Work

A. Of course, each sample QA plan must be tailored to reflect changes made by the user to Section C of the GPWS and the PRS table, and changes in methods of surveillance, evaluation work sheets, etc.

B. Tailored QA plans should be self contained documents written in sufficient detail to preclude extensive reference to other documents or manuals. Tailored plans should contain examples of all evaluation work sheets, summary reports, and other forms which will be used for documenting Contractor performance. Sample selection, evaluation, analysis of results, and other procedures should be as detailed as possible.

C. Sample size determinations, sampling procedures, and payment deduction calculations in the sample QA plans are based on manual methods. The user should be aware that computerized methods of performing these functions have been developed which greatly reduce the time and number of manual calculations required, especially when random sampling is selected as the method of surveillance. Typically these computer programs will determine the sample size required for a given population of services to be random sampled, select the appropriate number of random numbers within a given range, summarize inspection results and perform associated payment calculations, perform random sampling confidence calculations, etc. Interested users should contact their geographical EFD for copies of this and other programs which may be available.

QUALITY ASSURANCE PLAN #1  
EMERGENCY SERVICE CALLS

1. Contract Requirement. Emergency Service Calls

Work Requirements

Standards of Performance

- |                      |   |
|----------------------|---|
| a. Timely Response   | At job site within !INSERT TIME! with proper tools/equipment [C.8.c(1)(a)]                    |
| b. Timely Completion | Completed within requirements for urgent or routine call, if appropriate [C.8.c(1)]           |
| c. Quality Work      | Emergency condition arrested, work completed in conformance with quality standards, Section C |
| d. Proper Procedures | Complete work authorization form and return within one working day (C.8.d)                    |

2. Primary Method of Surveillance. One hundred percent inspection

3. Maximum Allowable Defect Rate (MADR)

- |                      |    |
|----------------------|----|
| a. Timely Response   | 2% |
| b. Timely Completion | 2% |
| c. Quality Work      | 2% |
| d. Proper Procedures | 2% |

4. Quantity of Work. Average by month:

JAN	3	APR	9	JUL	5	OCT	6
FEB	5	MAY	6	AUG	5	NOV	7
MAR	7	JUN	4	SEP	4	DEC	4

5. Level of Surveillance. N/A

6. Sample Size. N/A

7. Sampling Procedures. N/A

8. Evaluation Procedures. As soon as possible after completion of each emergency service call and turn in of completed work authorization forms, the QAE will make an on-site visit and evaluate each of the work requirements listed in paragraph 1 as either satisfactory (S) or unsatisfactory (U) on the attached EVALUATION WORK SHEET. A brief description of any noted defects will be provided and rework information will be recorded, if appropriate. In most instances where the quality of work is considered unsatisfactory, timely completion will also be considered unsatisfactory. Evaluate response, completion, and proper procedures based on completed work authorization and service call log information. Provide copies of all negative EVALUATION WORK SHEETS to the Contractor. Rework will normally be allowed when practical, and must be completed by the Contractor within 24 hours of notification. Therefore, each call marked for rework must be reinspected by the QAE to see if the work

was satisfactorily completed, and appropriate notations completed on the EVALUATION WORK SHEET.

9. Analysis of Results. At the end of the month the QAE will summarize the results of the month's inspections and calculate observed defect rates (ODRs) and recommended payment deductions for **each** work requirement on a MONTHLY PAYMENT DEDUCTION FORM. A sample MONTHLY PAYMENT DEDUCTION FORM is attached.

a. If the ODR for a work requirement (Item F of the MONTHLY PAYMENT DEDUCTION FORM) is equal to or less than its MADR, overall performance of that requirement is satisfactory. Payment deductions will be made for all documented defects, as calculated on the MONTHLY PAYMENT DEDUCTION FORM. If the ODR is less than  $\frac{1}{2}$  of the MADR the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work.

b. If the ODR for a work requirement is greater than its MADR, performance of that requirement is unsatisfactory and the QAE should recommend to the FSCM that a CDR be issued to the Contractor, or that stronger action be taken. Payment deductions will be made as calculated on the MONTHLY PAYMENT DEDUCTION FORM.



SAMPLE

**MONTHLY PAYMENT DEDUCTION FORM  
EMERGENCY SERVICE CALLS**

CONTRACT NUMBER \_\_\_\_\_

SUMMARY FOR THE PERIOD <u>1 MAR 91 - 31 MAR 91</u>	<u>TIMELY RESPONSE</u>	<u>TIMELY COMPLETION</u>	<u>QUALITY WORK</u>	<u>PROPER PROCEDURES</u>
A. Relative Value of Services (from PRS)	<u>35%</u>	<u>10%</u>	<u>45%</u>	<u>10%</u>
B. Cost of Services (Schedule of Deductions Item 1 x A ÷ 100)	<u>\$ 350.00</u>	<u>\$ 100.00</u>	<u>\$ 450.00</u>	<u>\$ 100.00</u>
C. Actual Number of Calls Completed	<u>9</u>	<u>9</u>	<u>9</u>	<u>9</u>
D. Cost per Call (B ÷ C)	<u>\$ 38.89</u>	<u>\$ 11.11</u>	<u>\$ 50.00</u>	<u>\$ 11.11</u>
E. Number of Observed Unsat Calls	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
F. Observed Defect Rate (ODR) (E ÷ C x 100)	<u>11.1%</u>	<u>11.1%</u>	<u>11.1%</u>	<u>11.1%</u>
G. Value of Unsat Performed Work (D x E)	<u>\$ 38.89</u>	<u>\$ 11.11</u>	<u>\$ 50.00</u>	<u>\$ 11.11</u>
H. Deduct for Liquidated Damages (G x .1)	<u>\$ 3.89</u>	<u>\$ 1.11</u>	<u>\$ 5.00</u>	<u>\$ 11.11</u>
I. Number of Calls Reworked	<u>N/A</u>	<u>N/A</u>	<u>1</u>	<u>1</u>
J. Payment for Rework (D x I)	<u>N/A</u>	<u>N/A</u>	<u>\$ 50.00</u>	<u>\$ 11.11</u>
K. Other Adjustments ("-" indicates a deduction)	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>
L. Total Deductions (G + H - J + K)	<u>\$ 42.78</u>	<u>\$ 12.22</u>	<u>\$ 5.00</u>	<u>\$ 1.11</u>
TOTAL PAYMENT DEDUCTIONS			=	<u>\$ 61.11</u>

\_\_\_\_\_  
AUTHORIZED SIGNATURE/DATE

QUALITY ASSURANCE PLAN #2  
URGENT SERVICE CALLS

1. Contract Requirement. Urgent Service Calls

<u>Work Requirements</u>	<u>Standards of Performance</u>
a. Timely Response	At job site within !INSERT TIME! (regular hours) or !INSERT TIME! (after hours) with proper tools/equipment [Paragraph C.8.c(1)(b)]
b. Timely Completion	Prosecuted to completion and completed within !INSERT TIME! [Paragraph C.8.c(1)]
c. Quality Work	Work completed in conformance with quality standards, Section C
d. Proper Procedures	Complete work authorization form and return within one working day (Paragraph C.8.d)

2. Primary Method of Surveillance. Planned sampling supported by unscheduled inspections

3. Maximum Allowable Defect Rate (MADR)

a. Timely Response	3%
b. Timely Completion	3%
c. Quality Work	3%
d. Proper Procedures	3%

4. Quantity of Work. Average by month:

JAN	7	APR	17	JUL	9	OCT	13
FEB	9	MAY	11	AUG	11	NOV	13
MAR	13	JUN	8	SEP	8	DEC	9

5. Level of Surveillance. The normal level of surveillance will be used initially for the contract. Go to increased surveillance if the observed defect rate (ODR) for response or quality of work exceeds the MADR during any given month. If only the ODR for completion or procedures exceeds the MADR, consider increasing the level of surveillance for those work requirements only. Go to reduced surveillance if the ODRs for both response and quality of work are less than the MADR for two consecutive months. If at reduced surveillance the ODR for response or quality of work exceeds the MADR during the month, return to normal surveillance the next month.

6. Sample Size. The following sample sizes are established for each level of surveillance.

Reduced	- 10% of the calls completed
Normal	- 25% of the calls completed
Increased	- 50% of the calls completed

7. Sampling Procedures. As completed urgent service call work authorization forms are turned in by the Contractor, the QAE will arbitrarily select every fourth work authorization form (if at normal surveillance) for inspection. Choose every tenth call if at reduced surveillance, every other call if at increased surveillance.

8. Evaluation Procedures. As soon as possible after the call has been selected, the QAE will make an on-site visit and evaluate each of the work requirements listed in paragraph 1 as either satisfactory (S) or unsatisfactory (U) on the attached EVALUATION WORK SHEET. A brief description of any noted defects will be provided and rework information will be recorded, if appropriate. In most all instances when the quality of work is considered unsatisfactory, timely completion will also be considered unsatisfactory. Visiting the site as soon as possible after completion of the work is very important so that the work is "fresh" and relatively easy to inspect. Evaluate response, completion, and proper procedures based on completed work authorization and service call log information. Provide copies of all negative EVALUATION WORK SHEETS to the Contractor.

a. Unscheduled Inspections. Unscheduled inspections may be conducted on any urgent service call, but should be limited to those of particular importance, where performance problems have been noted in the past, etc. Unscheduled inspections should be documented on a separate EVALUATION WORK SHEET from that used for planned sampling.

b. Rework. Rework will normally be allowed when practical, and must be completed by the Contractor within 24 hours of notification. Therefore, each call marked for rework must be reinspected by the QAE to see if the work was satisfactorily completed, and appropriate notations completed on the EVALUATION WORK SHEET.

9. Analysis of Results. At the end of the month the QAE will summarize the results of the month's inspections, calculate ODRs and recommended payment deductions for **each** work requirement on a MONTHLY PAYMENT DEDUCTION FORM, and determine if any change in the level of surveillance is needed for the coming evaluation period (see paragraph 5 above). A sample MONTHLY PAYMENT DEDUCTION FORM is attached.

a. If the ODR for a work requirement (Item G of the MONTHLY PAYMENT DEDUCTION FORM) is equal to or less than its MADR, overall performance of that requirement is satisfactory. If the ODR is less than  $\frac{1}{2}$  of the MADR the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work. Consider whether or not reduced surveillance should be used for the coming evaluation period (see paragraph 5 above). Payment deductions will be made for all documented defects, as calculated on the MONTHLY PAYMENT DEDUCTION FORM.

b. If the ODR for a work requirement is greater than the MADR, performance of that requirement is unsatisfactory and the QAE should recommend to the FSCM that a CDR be issued to the Contractor, or that stronger action be taken. Consider whether or not increased surveillance should be used for the coming evaluation period. Payment deductions will be made as calculated on the MONTHLY PAYMENT DEDUCTION FORM.



SAMPLE

**MONTHLY PAYMENT DEDUCTION FORM  
URGENT SERVICE CALLS**

CONTRACT NUMBER \_\_\_\_\_

SUMMARY FOR THE PERIOD <u>1 MAR 91 - 31 MAR 91</u>	<u>TIMELY RESPONSE</u>	<u>TIMELY COMPLETION</u>	<u>QUALITY WORK</u>	<u>PROPER PROCEDURES</u>
A. Relative Value of Services (from PRS)	<u>20%</u>	<u>10%</u>	<u>60%</u>	<u>10%</u>
B. Cost of Services (Schedule of Deductions Item 2 x A ÷ 100)	<u>\$ 300.00</u>	<u>\$ 150.00</u>	<u>\$ 900.00</u>	<u>\$ 150.00</u>
C. Actual Number of Calls Completed	<u>17</u>	<u>17</u>	<u>17</u>	<u>17</u>
D. Cost per Call (B ÷ C)	<u>\$ 17.65</u>	<u>\$ 8.82</u>	<u>\$ 52.94</u>	<u>\$ 8.82</u>
E. Sample Size (SS)	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>
F. Number of Observed Sampled Unsat Calls	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
G. Observed Defect Rate (ODR) (F ÷ E x 100)	<u>20.0%</u>	<u>20.0%</u>	<u>20.0%</u>	<u>20.0%</u>
H. Unscheduled Inspections (# Unsat)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
I. Value of Unsat Performed Work [(F + H) x D]	<u>\$ 17.65</u>	<u>\$ 8.82</u>	<u>\$ 52.94</u>	<u>\$ 8.82</u>
J. Deduct for Liquidated Damages (I x .1)	<u>\$ 1.77</u>	<u>\$ .88</u>	<u>\$ 5.29</u>	<u>\$ .88</u>
K. Number of Calls Reworked				
(1) Sampled Calls	<u>N/A</u>	<u>N/A</u>	<u>0</u>	<u>0</u>
(2) Unscheduled Inspections	<u>N/A</u>	<u>N/A</u>	<u>0</u>	<u>0</u>
L. Payment for Rework [K(1) + K(2)] x D	<u>N/A</u>	<u>N/A</u>	<u>\$ 0</u>	<u>\$ 0</u>
M. Other Adjustments ("-" indicates a deduction)	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>
N. Total Deductions (I + J - L + M)	<u>\$ 19.42</u>	<u>\$ 9.70</u>	<u>\$ 58.23</u>	<u>\$ 9.70</u>

TOTAL PAYMENT DEDUCTIONS = \$ 97.05

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AUTHORIZED SIGNATURE/DATE

QUALITY ASSURANCE PLAN #3  
ROUTINE SERVICE CALLS

1. Contract Requirement. Routine Service Calls

Work Requirements

Standards of Performance

- a. Timely Completion      Work completed within !INSERT NUMBER! working days [C.8.c(1)(c)]
- b. Quality Work            Work completed in conformance with quality standards, Section C
- c. Proper Procedures      Complete work authorization form and return within one working day (Paragraph C.8.d)

2. Primary Method of Surveillance. Planned sampling supported by unscheduled inspections

3. Maximum Allowable Defect Rate (MADR)

- b. Timely Completion      5%
- c. Quality Work            5%
- d. Proper Procedures      5%

4. Quantity of Work. Average by month:

JAN	18	APR	28	JUL	18	OCT	19
FEB	20	MAY	26	AUG	16	NOV	24
MAR	24	JUN	20	SEP	12	DEC	17

5. Level of Surveillance. The normal level of surveillance will be used initially for the contract. Go to increased surveillance if the observed defect rate (ODR) for timely completion or quality of work exceeds the MADR during any given month. If only the ODR for proper procedures exceeds the MADR, consider increasing the level of surveillance for that work requirement only. Go to reduced surveillance if the ODRs for both timely completion and quality of work are less than the MADR for two consecutive months. If at reduced surveillance the ODR for timely completion or quality of work exceeds the MADR during the month, return to normal surveillance the next month.

6. Sample Size. The following sample sizes are established for each level of surveillance.

- Reduced    - 10% of the calls completed
- Normal     - 25% of the calls completed
- Increased - 50% of the calls completed

7. Sampling Procedures. As completed routine service call work authorization forms are turned in by the Contractor, the QAE will arbitrarily select every fourth work authorization form (if at normal surveillance) for inspection. Choose every tenth call if at reduced surveillance, every other call if at increased surveillance.

8. Evaluation Procedures. As soon as possible after the call has been selected, the QAE will make an on-site visit and evaluate each of the work requirements listed in paragraph 1 as either satisfactory (S) or unsatisfactory (U) on the attached EVALUATION WORK SHEET. A brief description of any noted defects will be provided and rework information will be recorded, if appropriate. In most all instances when the quality of work is considered unsatisfactory, timely completion will also be considered unsatisfactory. Visiting the site as soon as possible after completion of the work is very important so that the work is "fresh" and relatively easy to inspect. Evaluate timeliness and proper procedures based on completed work authorization and service call log information. Provide copies of all negative EVALUATION WORK SHEETS to the Contractor.

a. Unscheduled Inspections. Unscheduled inspections may be conducted on any routine service call, but should be limited to those of particular importance, where performance problems have been noted in the past, etc. Unscheduled inspections should be documented on a separate EVALUATION WORK SHEET from that used for planned sampling.

b. Rework. Rework will normally be allowed when practical, and must be completed by the Contractor within 24 hours of notification. Therefore, each call marked for rework must be reinspected by the QAE to see if the work was satisfactorily completed, and appropriate notations completed on the EVALUATION WORK SHEET.

9. Analysis of Results. At the end of the month the QAE will summarize the results of the month's inspections, calculate ODRs and recommended payment deductions for **each** work requirement on a MONTHLY PAYMENT DEDUCTION FORM, and determine if any change in the level of surveillance is needed for the coming evaluation period (see paragraph 5 above). A sample MONTHLY PAYMENT DEDUCTION FORM is attached.

a. If the ODR for a work requirement (Item G of the MONTHLY PAYMENT DEDUCTION FORM) is equal to or less than the MADR, performance of that requirement is satisfactory. If the ODR is less than  $\frac{1}{2}$  of the MADR the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work. Consider whether or not reduced surveillance should be used for the coming evaluation period (see paragraph 5 above). Payment deductions will be made for all documented defects, as calculated on the MONTHLY PAYMENT DEDUCTION FORM.

b. If the ODR for a work requirement is greater than the MADR, performance of that requirement is unsatisfactory and the QAE should recommend to the FSCM that a CDR be issued to the Contractor, or that stronger action be taken. Consider whether or not increased surveillance should be used during the coming evaluation period (see paragraph 5 above). Payment deductions will be made as calculated on the MONTHLY PAYMENT DEDUCTION FORM.



SAMPLE

**MONTHLY PAYMENT DEDUCTION FORM  
ROUTINE SERVICE CALLS**

CONTRACT NUMBER \_\_\_\_\_

SUMMARY FOR THE PERIOD <u>1 MAR 91 - 31 MAR 91</u>	<u>TIMELY COMPLETION</u>	<u>QUALITY WORK</u>	<u>PROPER PROCEDURES</u>
A. Relative Value of Services (from PRS)	<u>15%</u>	<u>75%</u>	<u>10%</u>
B. Cost of Services(Schedule of Deductions Item 3 x A ÷ 100)	<u>\$ 1680.00</u>	<u>\$ 8400.00</u>	<u>\$ 1120.00</u>
C. Actual Number of Calls Completed	<u>28</u>	<u>28</u>	<u>28</u>
D. Cost per Call (B ÷ C)	<u>\$ 60.00</u>	<u>\$ 300.00</u>	<u>\$ 40.00</u>
E. Sample Size	<u>7</u>	<u>7</u>	<u>7</u>
F. Number of Sampled Observed Unsat Calls	<u>2</u>	<u>2</u>	<u>2</u>
G. Observed Defect Rate (ODR) (F ÷ E x 100)	<u>28.6%</u>	<u>28.6%</u>	<u>28.6%</u>
H. Unscheduled Inspections (# Unsat)	<u>0</u>	<u>0</u>	<u>0</u>
I. Value of Unsatisfactorily Performed Work [(F + H) x D]	<u>\$ 120.00</u>	<u>\$ 600.00</u>	<u>\$ 80.00</u>
J. Deduct for Liquidated Damages (I x .1)	<u>\$ 12.00</u>	<u>\$ 60.00</u>	<u>\$ 8.00</u>
K. Number of Calls Reworked			
(1) Sampled Calls	<u>N/A</u>	<u>2</u>	<u>2</u>
(2) Unscheduled Inspections	<u>N/A</u>	<u>0</u>	<u>0</u>
L. Payment for Rework [K(1) + K(2)] x D	<u>N/A</u>	<u>\$ 600.00</u>	<u>\$ 80.00</u>
M. Other Adjustments ("-" indicates a deduction)	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>
N. Total Payment Deductions (I + J - L + M)	<u>\$ 132.00</u>	<u>\$ 60.00</u>	<u>\$ 8.00</u>

TOTAL PAYMENT DEDUCTIONS = \$ 200.00

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AUTHORIZED SIGNATURE/DATE

QUALITY ASSURANCE PLAN #4  
GRADING OF MISCELLANEOUS SURFACES

1. Contract Requirement. Grading of Miscellaneous Surfaces (Scheduled and Unscheduled)

Work Requirements

Standards of Performance

- |                      |  |
|----------------------|--|
| a. Timely Completion | Scheduled services completed in accordance with Contractor's approved schedule; unscheduled services completed within !INSERT NUMBER! days after receipt of order (C.12) |
| b. Quality Work      | All areas graded in accordance with standards specified (C.12)   |

2. Primary Method of Surveillance. One hundred percent inspection

3. Maximum Allowable Defect Rate (MADR)

- |                      |     |
|----------------------|-----|
| a. Timely Completion | 10% |
| b. Quality Work      | 10% |

4. Quantity of Work. The quantity of work per month will equal the number of grading services scheduled by the Contractor and/or ordered by the Contracting Officer.

5. Level of Surveillance. N/A

6. Sample Size. N/A

7. Sampling Procedures. N/A

8. Evaluation Procedures. As soon as possible after each grading service is scheduled to be completed the QAE will make an on-site visit of all areas.

a. Both of the work requirements listed in paragraph 1 will be assigned an overall grade of either satisfactory (S) or unsatisfactory (U) on the attached EVALUATION WORK SHEET. Quality work should be considered satisfactory overall if 90% or more of the work was satisfactorily performed without rework being required. Timely completion should be considered satisfactory overall if 90% or more of the work was satisfactorily completed as scheduled or within the time limits specified for the delivery order.

b. A brief description of any noted defects, the quantity of work considered unsatisfactory, and rework information will also be recorded, if appropriate. Rework will normally be allowed when practical, and must be completed by the Contractor within 24 hours of notification. Therefore, each area marked for rework must be reinspected by the QAE to see if the work was satisfactorily completed, and appropriate notations completed on the EVALUATION WORK SHEET. Provide copies of all negative EVALUATION WORK SHEETS to the Contractor.

9. Analysis of Results. At the end of the month the QAE will summarize the results of the month's inspections, and calculate Observed Defect Rates (ODRs) and recommended payment deductions.

a. Payment deductions and ODRs for scheduled services will be calculated on a MONTHLY PAYMENT DEDUCTION FORM, as in the attached example for scheduled grading of soil aggregate surfaces. Note that separate forms will be required for earth and soil aggregate surfaces since there are separate prices for these items in the Schedule of Deductions. Payment deductions for unscheduled services will be calculated based on the quantity of unsatisfactory work and the weights set out in the PRS table, and deducted from the corresponding indefinite quantity delivery order(s) invoiced by the Contractor.

b. ODRs for each work requirement will be calculated on the MONTHLY PAYMENT DEDUCTION FORM for scheduled services only.

(1) If the ODR for a work requirement (Item E of the MONTHLY PAYMENT DEDUCTION FORM) is equal to or less than its MADR, overall performance of that requirement is satisfactory. If the ODR is less than  $\frac{1}{2}$  of the MADR the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work.

(2) If the ODR for a work requirement is greater than its MADR, overall performance is unsatisfactory and the QAE should recommend to the FSCM that a CDR be issued to the Contractor, or that stronger action be taken.



SAMPLE

**MONTHLY PAYMENT DEDUCTION FORM  
GRADING OF MISCELLANEOUS SURFACES**

CONTRACT NUMBER \_\_\_\_\_

TYPE SERVICE Scheduled Grading, Soil Aggregate Surfaces

SUMMARY FOR THE PERIOD <u>1 MAR 91 - 31 MAR 91</u>	TIMELY <u>COMPLETION</u>	QUALITY <u>WORK</u>
A. Relative Value of Services (from PRS)	<u>10%</u>	<u>90%</u>
B. Price per Unit (Schedule of Deductions Item 4b x A ÷ 100)	\$ <u>.05</u>	\$ <u>.45</u>
C. Quantity Scheduled for Completion	<u>33000</u>	<u>33000</u>
D. Number of Observed Unsat Services	<u>600</u>	<u>600</u>
E. Observed Defect Rate (ODR) (D ÷ C x 100)	<u>1.8%</u>	<u>1.8%</u>
F. Value of Unsat Performed Work (B x D)	\$ <u>30.00</u>	\$ <u>270.00</u>
G. Deduct for Liquidated Damages (F x .1)	\$ <u>3.00</u>	\$ <u>27.00</u>
H. Quantity Reworked	<u>N/A</u>	<u>500</u>
I. Payment for Rework (B x H)	<u>N/A</u>	\$ <u>225.00</u>
J. Other Adjustments (" - " indicates a deduction)	\$ <u>0</u>	\$ <u>0</u>
K. Total Deductions (F + G - I + J)	\$ <u>33.00</u>	\$ <u>72.00</u>

TOTAL PAYMENT DEDUCTIONS = \$ 105.00

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AUTHORIZED SIGNATURE/DATE

QUALITY ASSURANCE PLAN #5  
MAINTENANCE OF DRAINAGE SYSTEMS

1. Contract Requirement. Maintenance of Drainage Systems (Scheduled and Unscheduled)

<u>Work Requirements</u>	<u>Standards of Performance</u>
a. Timely Completion	Work completed by date specified in Contractor's approved schedule, and within !INSERT NUMBER! working days after qualifying rainfall (C.14.a)
b. Quality Work	Drainage systems cleared and working properly, debris disposed of (C.14.a)
c. Provide Inspection Reports	Report of drainage deficiencies completed and submitted within !INSERT NUMBER! working days after inspection completion date [C.14.a(3)]

2. Primary Method of Surveillance. Planned sampling supported by unscheduled inspections for both scheduled and unscheduled services

3. Maximum Allowable Defect Rate (MADR)

a. Timely Completion	5%
b. Quality Work	5%
c. Provide Inspection Reports	5%

4. Quantity of Work. The quantity of work for each drainage system inspection to be provided by the Contractor will equal the number of drainage structures listed in Attachment J-C1, i.e., the number of drop inlets, pipe culverts, bridges, etc. There will be two scheduled inspections of all drainage systems each year. Historically there have been !INSERT NUMBER! of unscheduled inspections caused by heavy rainfalls.

5. Level of Surveillance. The normal level of surveillance will be used initially for the contract. Go to increased surveillance if the observed defect rate (ODR) for any work requirement exceeds the MADR during any given month. Go to reduced surveillance if the ODR for all work requirements are less than the MADR for two consecutive months. If at reduced surveillance the ODR for any work requirement exceeds the MADR during the month, return to normal surveillance the next month.

6. Sample Size. The following sample sizes are established for each level of surveillance.

Reduced	- 5% of the drainage systems
Normal	- 10% of the drainage systems
Increased	- 20% of the drainage systems

7. Sampling Procedures. The QAE will choose the appropriate number of samples based on the Contractor's approved inspection schedule, the number of unscheduled inspections caused by heavy rainfall, and the level of surveillance which will be used for the evaluation period. As the Contractor completes the work, the QAE will select and inspect one tenth of the drainage systems if at normal level, one twentieth if at reduced, and one fifth if at increased level.

Samples will be chosen on a rotating basis so that as many of the drainage systems as possible will be covered within a year.

8. Evaluation Procedures. As soon as possible after each drainage system inspection is scheduled to be completed, the QAE will make an on-site visit and evaluate each of the work requirements listed in paragraph 1 as either satisfactory (S) or unsatisfactory (U) on the attached EVALUATION WORK SHEET. A brief description of any noted defects will be provided and rework information, if appropriate, will be recorded. When inspecting each drainage system compare any facility deficiencies noted with the drainage system deficiency report submitted by the Contractor. When appropriate, record the quantity of unsatisfactorily performed work on the EVALUATION WORK SHEET, such as the number of feet of drainage ditches not cleaned of debris. Provide copies of all negative EVALUATION WORK SHEETS to the Contractor.

a. Unscheduled Inspections. Unscheduled inspections may be conducted on any drainage system, but should be limited to those of particular importance, such as where problems have been noted previously. Unscheduled inspections should be documented on a separate EVALUATION WORK SHEET from that used for planned sampling.

b. Rework. Rework will normally be required, and must be completed by the Contractor within 24 hours of notification. Therefore, each inspection marked for rework must be reinspected by the QAE to see if the work was satisfactorily completed, and appropriate notations completed on the EVALUATION WORK SHEET.

9. Analysis of Results. At the end of the month the QAE will summarize the results of the month's inspections and calculate ODRs and recommended payment deductions.

a. An ODR will be calculated for **each** work requirement for the overall performance of drainage system inspection services by combining inspection results from all EVALUATION WORK SHEETS (scheduled and unscheduled) and using the following formula:

$$\text{ODR} = \frac{\text{Number of Defects Observed}}{\text{Total Number of Systems Inspected}}$$

(1) If the ODR for a work requirement is equal to or less than the MADR, the Contractor's overall performance of that requirement is satisfactory for the month. If the ODR is less than ½ of the MADR, the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work, and should consider whether or not reduced surveillance should be used for the next evaluation period (see paragraph 5 above).

(2) If the ODR for a work requirement is greater than the MADR, the Contractor's overall performance of that requirement is unsatisfactory, and the QAE should recommend to the FSCM that a CDR be issued to the Contractor or that stronger action be taken. Consider whether or not increased surveillance should be used for the next evaluation period.

b. Recommended payment deductions will be calculated on MONTHLY PAYMENT DEDUCTION FORMS. Note that **separate** forms will be required for each type of drainage system since there are separate prices for each in the Schedule of Deductions. A sample MONTHLY PAYMENT DEDUCTION FORM for scheduled inspection of drop inlets is attached.



SAMPLE

**MONTHLY PAYMENT DEDUCTION FORM  
MAINTENANCE OF DRAINAGE SYSTEMS (SCHEDULED)**

CONTRACT NUMBER \_\_\_\_\_

TYPE OF SYSTEM Drop Inlets

SUMMARY FOR THE PERIOD <u>1 MAR 91 - 31 MAR 91</u>	TIMELY <u>COMPLETION</u>	QUALITY <u>WORK</u>	PROVIDE INSPECTION <u>REPORTS</u>
A. Relative Value of Services (from PRS)	<u>20%</u>	<u>70%</u>	<u>10%</u>
B. Cost per Service [Schedule of Deductions Item 5a(2) x A ÷ 100]	\$ <u>1.00</u>	\$ <u>3.50</u>	\$ <u>.50</u>
C. Quantity Scheduled for Completion	<u>600</u>	<u>600</u>	<u>600</u>
D. Sample Size (SS)	<u>60</u>	<u>60</u>	<u>60</u>
E. Number of Observed Sampled Unsatisfactory Services	<u>7</u>	<u>7</u>	<u>7</u>
F. Unscheduled Inspections (# Unsat)	<u>2</u>	<u>2</u>	<u>2</u>
G. Value of Unsatisfactorily Performed Work [(E + F) x B]	\$ <u>9.00</u>	\$ <u>31.50</u>	\$ <u>4.50</u>
H. Deduct for Liquidated Damages (G x .1)	\$ <u>.90</u>	\$ <u>3.15</u>	\$ <u>.45</u>
I. Number of Services Reworked			
(1) Sampled	<u>N/A</u>	<u>4</u>	<u>4</u>
(2) Unscheduled Inspections	<u>N/A</u>	<u>2</u>	<u>2</u>
J. Payment for Rework [I(1) + I(2)] x B	<u>N/A</u>	\$ <u>21.00</u>	\$ <u>3.00</u>
K. Other Adjustments (" - " indicates a deduction)	\$ <u>0</u>	\$ <u>0</u>	\$ <u>0</u>
L. Total Deductions (G + H - J + K)	\$ <u>9.90</u>	\$ <u>34.65</u>	\$ <u>4.95</u>

TOTAL PAYMENT DEDUCTIONS = \$ 49.50

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AUTHORIZED SIGNATURE/DATE

QUALITY ASSURANCE PLAN #6  
SWEEPING OF AIRFIELD PAVEMENTS

1. Contract Requirement. Sweeping of Airfield Pavements (Scheduled and Unscheduled)

Work Requirements

Standards of Performance

- a. Timely Completion      Scheduled services completed in accordance with Attachment J-C10, unscheduled services responded to within !INSERT NUMBER! hours after receipt of order (C.15.a)
- b. Quality Work              All areas swept clean, debris properly disposed of (C.15.a)

2. Primary Method of Surveillance. Planned sampling supported by unscheduled inspections and validated customer complaints for scheduled services, 100% inspection for unscheduled services

3. Maximum Allowable Defect Rate (MADR)

- a. Timely Completion              2%
- b. Quality Work                      2%

4. Quantity of Work. The quantity of work for scheduled services will vary from month to month, and will equal the number of sweepings scheduled to be completed during the month. The following example illustrates how the quantity of work (number of sweepings) would have been calculated for March 1991. Total acres swept is also shown, which will be used at the end of the month to calculate payment deductions.

<u>AREA</u>	<u>NUMBER OF SWEEPINGS</u>	<u>TOTAL ACRES SWEPT</u>
A (100 acres)	5	500
B ( 60 acres)	9	540
C ( 40 acres)	26	1040
D ( 70 acres)	<u>26</u>	<u>1820</u>
Monthly Totals	66	3900

The quantity of work for unscheduled services will equal the number of unscheduled sweepings ordered by the Contracting Officer.

5. Level of Surveillance. For scheduled services, the normal level of surveillance will be used initially for the contract. Go to increased surveillance if the observed defect rate (ODR) for either timely completion or quality of work exceeds the MADR during any given month. Go to reduced surveillance if the ODRs for both timely completion and quality of work are less than the MADR for two consecutive months. If at reduced surveillance the ODR for either work requirement exceeds the MADR during the month, return to normal surveillance the next month.

6. Sample Size. The following sample sizes are established for each level of surveillance.

Reduced - 10% of the scheduled sweepings  
Normal - 25% of the scheduled sweepings  
Increased - 50% of the scheduled sweepings

7. Sampling Procedures. As scheduled sweepings are completed the QAE will arbitrarily select every fourth sweeping operation (if at normal surveillance) for inspection. Choose every tenth sweeping operation if at reduced surveillance, and every other sweeping operation if at increased surveillance.

8. Evaluation Procedures. As soon as possible after each sweeping operation is scheduled to be completed the QAE will make an on-site visit of the areas selected.

a. Both of the work requirements listed in paragraph 1 will be assigned an overall grade of either satisfactory (S) or unsatisfactory (U) on the attached EVALUATION WORK SHEET. Separate work sheets will be used for scheduled and unscheduled services. Quality work should be considered satisfactory overall if 90% or more of the work was satisfactorily completed without rework being required. Timely completion should be considered satisfactory overall if 90% or more of the work was satisfactorily completed as scheduled or within the time limits specified for the delivery order.

b. A brief description of any noted defects, the quantity of work considered unsatisfactory, and rework information will also be recorded, if appropriate. Rework will normally be allowed when practical, and must be completed by the Contractor within 6 hours of notification in the case of daily services, or within 24 hours in the case of all other services. Therefore, each area marked for rework must be reinspected by the QAE to see if the work was satisfactorily completed, and appropriate notations completed on the EVALUATION WORK SHEET. Provide copies of all negative EVALUATION WORK SHEETS to the Contractor.

c. The QAE will validate each customer complaint received on the standard customer complaint form. Normally, site visits will be required to validate complaints.

d. Unscheduled inspections may be conducted on any scheduled sweeping, but should be limited to those where performance problems have been noted in the past. Unscheduled inspections should be documented on a separate EVALUATION WORK SHEET from that used for planned sampling.

9. Analysis of Results. At the end of the month the QAE will summarize the results of the month's inspections, and calculate ODRs and recommended payment deductions.

a. Payment deductions and ODRs for scheduled services will be calculated on a MONTHLY PAYMENT DEDUCTION FORM, as in the attached example for scheduled sweepings. Payment deductions for unscheduled services will be calculated based on the quantity of unsatisfactory work and the weights set out in the PRS table, and deducted from the corresponding indefinite quantity delivery order(s) invoiced by the Contractor.

b. ODRs for each work requirement will be calculated on the MONTHLY PAYMENT DEDUCTION FORM for scheduled services only.

(1) If the ODR for a work requirement (Item F of the MONTHLY PAYMENT DEDUCTION FORM) is equal to or less than its MADR, overall performance of that requirement is satisfactory. If the ODR is less than  $\frac{1}{2}$  of the MADR the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work, and should consider whether or not reduced surveillance should be used for the next evaluation period (see paragraph 5 above).

(2) If the ODR for a work requirement is greater than its MADR, overall performance of that requirement is unsatisfactory and the QAE should recommend to the FSCM that a CDR be issued to the Contractor, or that stronger action be taken. Consider whether or not increased surveillance should be used for the next evaluation period.



SAMPLE

**MONTHLY PAYMENT DEDUCTION FORM  
SCHEDULED SWEEPING OF AIRFIELD PAVEMENTS**

CONTRACT NUMBER \_\_\_\_\_

SUMMARY FOR THE PERIOD <u>1 MAR 91 - 31 MAR 91</u>	<u>TIMELY COMPLETION</u>	<u>QUALITY WORK</u>
A. Relative Value of Services (from PRS)	<u>15%</u>	<u>85%</u>
B. Cost per Service (Schedule of Deductions Item 6 x A ÷ 100)	\$ <u>.60</u>	\$ <u>3.40</u>
C. Number of Acres Scheduled for Completion	<u>3900</u>	<u>3900</u>
D. Number of Acres in Sample	<u>975</u>	<u>975</u>
E. Number of Observed Sampled Unsatisfactory Acres	<u>120</u>	<u>120</u>
F. Observed Defect Rate (ODR) (D ÷ E x 100)	<u>12.3%</u>	<u>12.3%</u>
G. Validated Customer Complaints (# Acres Unsatisfactory)	<u>0</u>	<u>0</u>
H. Unscheduled Inspections (# Acres Unsatisfactory)	<u>0</u>	<u>0</u>
I. Value of Unsat Performed Work [(E + G + H) x B]	\$ <u>72.00</u>	\$ <u>408.00</u>
J. Deduct for Liquidated Damages (I x .1)	\$ <u>7.20</u>	\$ <u>40.80</u>
K. Number of Acres Reworked		
(1) Sampled Services	<u>N/A</u>	<u>120</u>
(2) Customer Complaints	<u>N/A</u>	<u>0</u>
(3) Unscheduled Inspections	<u>N/A</u>	<u>0</u>
L. Payment for Rework [K(1) + K(2) + K(3)] x B	<u>N/A</u>	\$ <u>408.00</u>
M. Other Adjustments (" - " indicates a deduction)	\$ <u>0</u>	\$ <u>0</u>
N. Total Deductions (I + J - L + M)	\$ <u>79.20</u>	\$ <u>40.80</u>

TOTAL PAYMENT DEDUCTIONS = \$ 120.00

\_\_\_\_\_  
AUTHORIZED SIGNATURE/DATE

QUALITY ASSURANCE PLAN #7  
SWEEPING ROADS, PARKING AREAS, AND OPEN STORAGE AREAS

1. Contract Requirement. Sweeping Roads, Parking Areas, and Open Storage Areas (Scheduled and Unscheduled)

Work Requirements

Standards of Performance

- a. Timely Completion      Scheduled services completed in accordance with Contractor's approved schedule; unscheduled services completed within !INSERT NUMBER! days after receipt of order (C.15.b)
- b. Quality Work            All areas swept clean, debris properly disposed of (C.15.b)

2. Primary Method of Surveillance. Planned sampling supported by unscheduled inspections for scheduled services, 100% inspection for unscheduled services

3. Maximum Allowable Defect Rate (MADR)

- a. Timely Completion      5%
- b. Quality Work            5%

4. Quantity of Work. The quantity of work for scheduled services will vary from month to month, and will equal the number of sweepings scheduled to be completed during the month. The following example illustrates how the quantity of work (number of sweepings) could be calculated. Also shown is total quantity of sweeping (curb miles, square yards) to be completed, which will be used at the end of the month to calculate payment deductions.

<u>ROADS</u>	<u>NUMBER OF SWEEPINGS</u>	<u>CURB MILES</u>
Main Street (5.0 miles)	1	10
First Street* (2.0 miles)	1	4
Second Street* (1.5 miles)	1	3

!ETC!

<u>PARKING AREAS</u>	<u>NUMBER OF SWEEPINGS</u>	<u>SQUARE YARDS</u>
at Building 100 (5000 SY)	1	5000
at Building 101* (8000 SY)	1	8000
at Building 102* (6000 SY)	1	6000
at Building 103 (3000 SY)	1	3000

!ETC!

<u>OPEN STORAGE AREAS</u>	<u>NUMBER OF SWEEPINGS</u>	<u>SQUARE YARDS</u>
at Building 104 (20000 SY)	1	20000

!ETC!

\* Quarterly sweepings scheduled during this evaluation period.

5. Level of Surveillance. For scheduled services the normal level of surveillance will be used initially for the contract. Go to increased surveillance if the observed defect rate (ODR) for timely completion or quality of work exceeds the MADR during any given month. Go to reduced surveillance if the ODRs for both timely completion and quality of work are less than the MADR for two consecutive months. If at reduced surveillance the ODR for either work requirement exceeds the MADR during the month, return to normal surveillance the next month.

6. Sample Size. The following sample sizes are established for each level of surveillance.

Reduced - 10% of the scheduled sweepings  
Normal - 25% of the scheduled sweepings  
Increased - 50% of the scheduled sweepings

7. Sampling Procedures. As scheduled sweepings are completed the QAE will arbitrarily select every fourth sweeping operation (if at normal surveillance) for inspection. Choose every tenth sweeping operation if at reduced surveillance, and every other sweeping operation if at increased surveillance.

8. Evaluation Procedures. As soon as possible after each sweeping operation is scheduled to be completed the QAE will make an on-site visit of the areas selected.

a. Both of the work requirements listed in paragraph 1 will be assigned an overall grade of either satisfactory (S) or unsatisfactory (U) on the attached EVALUATION WORK SHEET. Separate work sheets will be used for scheduled and unscheduled services. Quality work should be considered satisfactory overall if 90% or more of the work was satisfactorily performed without rework being required. Timely completion should be considered satisfactory overall if 90% or more of the work was satisfactorily completed as scheduled or within the time limits specified for the delivery order.

b. A brief description of any noted defects, the quantity of work considered unsatisfactory, and rework information will also be recorded, if appropriate. Rework will normally be allowed when practical, and must be completed by the Contractor within 24 hours of notification. Therefore, each area marked for rework must be reinspected by the QAE to see if the work was satisfactorily completed, and appropriate notations completed on the EVALUATION WORK SHEET. Provide copies of all negative EVALUATION WORK SHEETS to the Contractor.

c. Unscheduled inspections may be conducted on any scheduled sweeping, but should be limited to those where performance problems have been noted in the past. Unscheduled inspections should be documented on a separate EVALUATION WORK SHEET from that used for planned sampling.

9. Analysis of Results. At the end of the month the QAE will summarize the results of the month's inspections, and calculate ODRs and recommended payment deductions.

a. Payment deductions and ODRs for scheduled services will be calculated on a MONTHLY PAYMENT DEDUCTION FORM, as in the attached example for scheduled road sweeping. Payment deductions for unscheduled services will be calculated based on the quantity of unsatisfactory work and the weights set out in the PRS table, and deducted from the corresponding indefinite quantity delivery order(s) invoiced by the Contractor.

b. ODRs for each work requirement will be calculated on the MONTHLY PAYMENT DEDUCTION FORM for scheduled services only.

(1) If the ODR for a work requirement (Item F of the MONTHLY PAYMENT DEDUCTION FORM) is equal to or less than its MADR, overall performance of that requirement is satisfactory. If the ODR is less than  $\frac{1}{2}$  of the MADR the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work, and should consider whether or not reduced surveillance should be used for the next evaluation period (see paragraph 5 above).

(2) If the ODR for a work requirement is greater than the MADR, overall performance is unsatisfactory and the QAE should recommend to the FSCM that a CDR be issued to the Contractor, or that stronger action be taken. Consider whether or not increased surveillance should be used for the next evaluation period.



SAMPLE

**MONTHLY PAYMENT DEDUCTION FORM  
SWEEPING ROADS, PARKING AREAS, AND OPEN STORAGE AREAS**

CONTRACT NUMBER \_\_\_\_\_

SUMMARY FOR THE PERIOD <u>1 MAR 91 - 31 MAR 91</u>	<u>TIMELY COMPLETION</u>	<u>QUALITY WORK</u>
A. Relative Value of Services (from PRS)	<u>10%</u>	<u>90%</u>
B. Cost per Service (Schedule of Deductions Item 7a x A ÷ 100)	<u>\$ 2.00</u>	<u>\$ 18.00</u>
C. Number of Units Scheduled for Completion	<u>17</u>	<u>17</u>
D. Number of Units in Sample	<u>5</u>	<u>5</u>
E. Number of Observed Sampled Unsatisfactory Units	<u>2</u>	<u>2</u>
F. Observed Defect Rate (ODR) (E ÷ D x 100)	<u>40%</u>	<u>40%</u>
G. Unscheduled Inspections (# Units Unsatisfactory)	<u>0</u>	<u>0</u>
H. Value of Unsat Performed Work [(E + G) x B]	<u>\$ 4.00</u>	<u>\$ 36.00</u>
I. Deduct for Liquidated Damages (H x .1)	<u>\$ .40</u>	<u>\$ 3.60</u>
J. Number of Services Reworked		
(1) Sampled Services	<u>N/A</u>	<u>1</u>
(2) Unscheduled Inspections	<u>N/A</u>	<u>0</u>
K. Payment for Rework [J(1) + J(2)] x B	<u>N/A</u>	<u>\$ 18.00</u>
L. Other Adjustments (" - " indicates a deduction)	<u>\$ 0</u>	<u>\$ 0</u>
N. Total Deductions (H + I - K + L)	<u>\$ 4.40</u>	<u>\$ 21.60</u>

TOTAL PAYMENT DEDUCTIONS = \$ 26.00

\_\_\_\_\_  
AUTHORIZED SIGNATURE/DATE

QUALITY ASSURANCE PLAN #8  
INDEFINITE QUANTITY WORK

1. Contract Requirement. Indefinite Quantity Work

Work Requirements

Standards of Performance

- a. Timely Completion                      Work completed by specified date (C.10)
- b. Quality Work                              Quality standards, Section C

2. Primary Method of Surveillance. One hundred percent inspection

3. Maximum Allowable Defect Rate (MADR)

- a. Timely Completion                      5%
- b. Quality Work                              5%

4. Quantity of Work. Estimate of 40 delivery orders issued for indefinite quantity work per year. Historical average by month:

JAN	0	APR	6	JUL	4	OCT	5
FEB	2	MAY	5	AUG	4	NOV	2
MAR	4	JUN	4	SEP	3	DEC	1

5. Level of Surveillance. N/A

6. Sample Size. N/A

7. Sampling Procedures. N/A

8. Evaluation Procedures. The QAE will evaluate the Contractor's performance at least once for each delivery order issued. A number of inspections may be required to adequately evaluate some delivery orders, especially those with multiple work items and key work phases. A final inspection will be made as soon as possible after notification by the Contractor that work on a delivery order is complete, and not later than the workday following scheduled work completion. The quality of work will be evaluated at each inspection, and a brief but complete description of any noted defects will be recorded on the attached EVALUATION WORK SHEET. A separate EVALUATION WORK SHEET will be filled out for each delivery order. At the final inspection, final grades will be assigned for both work requirements for the Contractor's overall performance of the work in the delivery order.

a. Rework will normally be required. Record all appropriate rework information on the EVALUATION WORK SHEET.

b. When determining the overall quality of work grade to be assigned for each delivery order, the QAE must carefully consider the total scope of work required and subjectively judge whether it has been substantially completed by the Contractor without an inordinate amount of rework being required. Generally, the QAE should grade a delivery order satisfactory overall if there has been no willful departure from the contract, there is no omission of essential work, and essentially 95% or more of the total work has been completed

without rework being required. If overall work quality for a delivery order is considered unsatisfactory, timeliness must also be considered unsatisfactory. The QAE should discuss questionable grades with the FSCM prior to providing the Contractor with a copy of the EVALUATION WORK SHEET.

9. Analysis of Results. At the end of the month the QAE will summarize the number of unsatisfactory overall grades for timeliness and quality of work, and calculate Observed Defect Rates (ODRs) for **each** using the following formula.

$$\text{ODR} = \frac{\text{Number of Overall Unsatisfactory Grades}}{\text{Total Number of Delivery Orders Inspected}} \times 100$$

For example:

Number of overall unsatisfactory quality grades = 1  
Number of delivery orders inspected = 6

ODR for quality work =  $1 \div 6 \times 100 = 16.7\%$

a. If the ODR for a work requirement is equal to or less than its MADR, overall performance of that requirement is satisfactory for the month. If the ODR is less than  $\frac{1}{2}$  of the MADR the QAE should recommend to the FSCM to notify the Contractor that performance is excellent and to keep up the good work.

b. If the ODR is greater than the MADR, overall performance is unsatisfactory and the QAE should recommend to the FSCM that a CDR be issued to the Contractor, or that stronger action be taken.

c. Payment deductions, if any, will be subtracted from each indefinite quantity delivery order invoiced by the Contractor.



IV. CONTRACTOR'S OVERALL PERFORMANCE EVALUATION. NAVFAC MO-327 and the NAVFAC RSED (V3.2) implementation guide provide guidance in determining the Contractor's overall monthly performance for each service; how to use the PRS table and the QAE's inspection results to calculate the total payment due for each service; and how to go about correcting problem areas of performance. This paragraph provides additional information on the completion of the MONTHLY PAYMENT DEDUCTION FORMS included in each sample QA plan, and includes a sample MONTHLY PERFORMANCE EVALUATION REPORT.

A. Monthly Payment Deduction Form. These forms are very useful for summarizing the results of each month's inspections and illustrate how the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES" and "ESTIMATING THE PRICE OF NONPERFORMED OR UNSATISFACTORY WORK" clauses, the Schedule of Deductions, the PRS table, and the QAE's completed EVALUATION WORK SHEETS are all used in calculating the total payment due for each contract requirement. The format for these forms should be tailored by the user. Other sample formats may be found in NAVFAC MO-327, the NAVFAC RSED implementation guide, and as mentioned previously, computer programs are available which will perform and document basically the same calculations.

B. Analysis of Results. The end result of the monthly inspection process is the overall evaluation of the Contractor's performance for the services inspected. Such an evaluation provides a summary of the Contractor's performance to the Contracting Officer, FSCM, QAE, Facilities Management Engineering Director, and the Contractor. Overall performance is important in determining whether to increase, decrease, or maintain surveillance at the same level; whether to issue one or more CDRs to the Contractor or take stronger administrative actions; and points out service areas which require greater QAE and Contractor QC emphasis during the coming evaluation period. Therefore, at the end of each month the QAE should complete and forward for the FSCM's approval a MONTHLY PERFORMANCE EVALUATION REPORT, in a format similar to that shown in Table 1.

C. Contract Discrepancy Report (CDR). When the Contractor's overall performance for any given work requirement is unsatisfactory, the QAE will recommend to the FSCM that a CDR be issued. Instructions on the use of CDRs, along with a typical format, are included in Chapter 6 of NAVFAC MO-327.

D. Recommended Deductions. The QAE will recommend to the FSCM those payment deductions that should be made. All work documented as not in compliance with the contract requirements (nonperformed or unsatisfactorily performed) is subject to payment deductions plus a 10% or 20% administrative cost (liquidated damages) in accordance with the provisions of the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES" clause, Section E. Since Government forces are normally not available, the Government will usually require the Contractor to reperform the work, and the 10% factor would be used. Some nonperformed/unsatisfactory work may be accomplished by separate contract, in which case the 20% factor would be used.

V. CONTRACTOR SUBMISSIONS. The QAE should prepare a list of Contractor submissions from the completed solicitation package. Required submissions should be listed chronologically by due date. The QAE should use this list to ensure that each submittal is turned in on schedule and is acceptable. A sample Contractor Submissions Work Sheet is included in Table 2.

TABLE 1

**SAMPLE MONTHLY PERFORMANCE EVALUATION REPORT**

REPORT PERIOD	CONTRACT					
	QUANTITY COMPLETED	MADR	ODR	CDR Y/N	RATING S/U	PAYMENT DEDUCTIONS
QA Plan #1						
EMERGENCY SERVICE CALLS						
Timely Response (35%)		2%				
Timely Completion (10%)		2%				
Quality Work (45%)		2%				
Proper Procedures (10%)		2%				
QA Plan #2						
URGENT SERVICE CALLS						
Timely Response (20%)		3%				
Timely Completion (10%)		3%				
Quality Work (60%)		3%				
Proper Procedures (10%)		3%				
QA Plan #3						
ROUTINE SERVICE CALLS						
Timely Completion (15%)		5%				
Quality Work (75%)		5%				
Proper Procedures (10%)		5%				
QA Plan #4						
GRADING OF MISC SURFACES						
Timely Completion (10%)		10%				
Quality of Work (90%)		10%				
QA Plan #5						
MAINTENANCE OF DRAINAGE SYSTEMS						
Timely Completion (20%)		5%				
Quality Work (70%)		5%				
Inspection Reports (10%)		5%				
QA Plan #6						
SWEEPING OF AIRFIELD PAVEMENTS						
Timely Completion (15%)		2%				
Quality Work (85%)		2%				
QA Plan #7						
SWEEPING ROADS, PARKING AREAS, AND STORAGE AREAS						
Timely Completion (10%)p		5%				
Quality Work (90%)		5%				
QA Plan #8						
INDEFINITE QUANTITY WORK						
Timely Completion (20%)		5%				
Quality Work (80%)		5%				

TOTAL PAYMENT DEDUCTIONS = \$ \_\_\_\_\_

CONTRACTOR'S OVERALL PERFORMANCE FOR THE MONTH: SAT  UNSAT

QAE'S SIGNATURE/DATE \_\_\_\_\_

TABLE 2

**SAMPLE CONTRACTOR SUBMISSIONS WORK SHEET**

<u>RECEIVED</u>	<u>WHEN</u>	<u>WHAT</u>	<u>REFERENCE SECTION/PARAGRAPH</u>
_____	With Bid/Offer	Bid Guarantee (if required)	I _____ L _____
_____	Prior to Award	Pre-Award Survey Data	M _____
_____	10 days after receiving forms	Performance and Payments Bonds (if required)	H _____ L _____
_____	15 days after award	Certificate of Insurance	H _____
_____	15 days after award	Contractor QC Plan	E _____
_____	15 days after award	Schedule of Deductions	E _____
_____	15 days after award	Initial Work Schedule	F _____
_____	!INSERT NUMBER! calendar days after award	Proposed Schedule for Scheduled Grading Services	C.12.a
_____	!INSERT NUMBER! calendar days after award	Proposed Schedule for Scheduled Drainage System Inspections	C.14.a(1)
_____	!INSERT NUMBER! calendar days after award	Proposed Schedule for Scheduled Sweeping of Roads, Parking, and Open Storage Areas	C.15.b
_____	Prior to start	Preperformance Conference	F _____
_____	Prior to start	Employee/Vehicle Pass/Badge applications	H _____
_____	Prior to start	Contractor's Representative	H _____
_____	Prior to start	Licenses and Permits	H _____
_____	Monthly	Payment Invoice	G _____
_____	5 days prior to the schedule period	Monthly Work Schedule	F _____
_____	24 hours after completion	Copy of Completed Delivery Order	G _____

<u>RECEIVED</u>	<u>WHEN</u>	<u>WHAT</u>	<u>REFERENCE SECTION/PARAGRAPH</u>
_____	Spring and Fall, and periodically as needed	Drainage System Inspection Report	C.14.a
_____	5 days after termination	Contractor QC Files	E_____
_____	5 days after termination	Records and Reports	C_____

END OF QUALITY ASSURANCE GUIDE