

**Commonwealth of Puerto Rico**

**DEPARTMENT OF TRANSPORTATION  
AND PUBLIC WORKS**

**PUERTO RICO HIGHWAY AND  
TRANSPORTATION AUTHORITY**



**STANDARD SPECIFICATIONS  
FOR  
ROAD AND BRIDGE CONSTRUCTION**

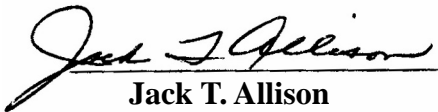
**2005**

No. \_\_\_\_\_

## **PREFACE**

This book is a revised version of the *Standard Specifications for Road and Bridges Construction* adopted in 1989. The provisions of these specifications shall apply on all construction contracts entered into by the Puerto Rico Highway and Transportation Authority in which this book is incorporated by reference and shall be binding upon the parties signatory to such contracts.

Variations from these specifications will not be permitted except as provided for by supplemental specifications or special provisions included in the specific contract. Plans and estimates are approved by the Executive Director with the understanding that the work covered by such plans and estimates is to be performed or contracted in accordance with these specifications and any supplemental specifications and special provisions included in the contract.

A handwritten signature in dark ink, reading "Jack T. Allison", is positioned above a horizontal line.

**Jack T. Allison**  
**Executive Director**  
**Puerto Rico Highway**  
**And Transportation Authority**

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## **GENERAL PROVISIONS**

### **SECTION 101        DEFINITIONS AND TERMS**

**101.01    General**    Wherever in these specifications or in other contract documents the abbreviations and terms included in this section, or pronouns in place of them are used, the intent and meaning shall be interpreted as indicated herein.

#### **101.02    Abbreviations**

<b>AA</b>	-	Aluminum Association
<b>AAN</b>	-	American Association of Nurserymen
<b>AASHTO</b>	-	American Association of State Highway and Transportation Officials
<b>ACI</b>	-	American Concrete Institute
<b>AGC</b>	-	Association of General Contractors (Asociación de Contratistas Generales)
<b>AIA</b>	-	American Institute of Architects
<b>AISC</b>	-	American Institute of Steel Construction
<b>AISI</b>	-	American Iron and Steel Institute
<b>ANSI</b>	-	American National Standards Institute
<b>ARTBA</b>	-	American Road and Transportation Builders Association
<b>ASCE</b>	-	American Society of Civil Engineers
<b>ASLA</b>	-	American Society of Landscape Architects
<b>ASME</b>	-	American Society of Mechanical Engineers
<b>ASTM</b>	-	American Society for Testing and Materials
<b>AWS</b>	-	American Welding Society
<b>AWWA</b>	-	American Water Works Association
<b>AWG</b>	-	American Wire Gauge
<b>CRSI</b>	-	Concrete Reinforcing Steel Institute
<b>EIA</b>	-	Electronics Industries Association
<b>FHWA</b>	-	Federal Highway Administration
<b>FSS</b>	-	Federal Specifications and Standards
<b>IEEE</b>	-	Institute of Electrical and Electronics Engineers
<b>IES</b>	-	Illuminating Engineering Society
<b>IMSA</b>	-	International Municipal Signal Association

## **GENERAL PROVISIONS**

<b>IPCEA</b>	- Insulated Power Cable Engineers Association
<b>ITE</b>	- Institute of Transportation Engineers
<b>MIL</b>	- Military Specifications
<b>NBS</b>	- National Bureau of Standards
<b>NEC</b>	- National Electric Code
<b>NEMA</b>	- National Electrical Manufacturers Association
<b>NFPA</b>	- National Fire Protection Association
<b>OSHA</b>	- Occupational Safety and Health Administration
<b>PCA</b>	- Portland Cement Association
<b>PCI</b>	- Prestressed Concrete Institute
<b>PRASA</b>	- Puerto Rico Aqueduct and Sewer Authority
<b>PRCA</b>	- Puerto Rico Communications Authority
<b>PREPA</b>	- Puerto Rico Electric Power Authority
<b>PRTC</b>	- Puerto Rico Telephone Company
<b>PTI</b>	- Post-Tensioning Institute
<b>SAE</b>	- Society of Automotive Engineers
<b>SSPC</b>	Steel Structures Painting Council
<b>TAI</b>	The Asphalt Institute
<b>UL</b>	Underwriters Laboratory

### **101.03 Definitions**

<b>Addendum</b>	A formal revision by additions, deletions or modifications of the contract documents for a construction project issued subsequent to the initial publication of the advertisement for bids but prior to the opening of bids.
<b>Advertisement</b>	A public announcement inviting bids for work to be performed or materials to be furnished.
<b>Authority</b>	The Puerto Rico Highway and Transportation Authority.
<b>Award</b>	The written acceptance by the Authority of a bid.

## **GENERAL PROVISIONS**

<b>Bid (Proposal)</b>	The written offer of a bidder, on prescribed proposal forms, to perform the work in accordance with all the requirements of the contract and to furnish the labor, equipment and materials at the prices quoted, properly signed and guaranteed.
<b>Bid Bond</b>	See Proposal Guaranty.
<b>Bidder</b>	An individual, firm, partnership, corporation or other legal entity formally submitting a proposal for the work to be performed, or materials to be furnished acting directly or through a duly authorized representative.
<b>Board of Awards</b>	The official board designated by the Authority and charged with the responsibilities of receiving and evaluating proposals, and making recommendations to the Director on the award of contracts.
<b>Bridge</b>	A structure, including supports, erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads and having a length measured along the center of the roadway of more than 20 feet (6.1 meters) between undercopings of abutments or extreme ends of openings for multiple boxes.

## **GENERAL PROVISIONS**

<b>Bridge Length</b>	The length of a bridge structure is the overall length measured along the line of survey stationing back to back of abutment backwalls, if present, otherwise end to end of bridge floor; but in no case less than the total clear opening of the structure.
<b>Bridge Roadway Width</b>	The clear width measured at right angles to the center line of the bridge between the bottom of curbs or, if curbs are not used, between the inner faces of bridge parapet or railing.
<b>Calendar Day</b>	Each and every day shown on the calendar, beginning and ending at midnight.
<b>Change Order</b>	A written order issued by the Engineer to the Contractor covering changes in the plans or quantities or both, within the scope of the contract, when prices for the items of work affected are previously established in the proposal schedule, and establishing the basis of any contract time adjustments which may be necessary because of the changes ordered.
<b>Commonwealth</b>	The Commonwealth of Puerto Rico.
<b>Contract</b>	The written agreement between the Authority and the Contractor to whom the award is made setting forth the obligations of the parties for the performance of the prescribed work.
<b>Contract Book</b>	The assembly of documents furnished by the Authority to describe the work and to be used by the bidder to prepare and to submit his proposal.

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### **Contract Documents**

All the documents which are an integral part of the contract including, but not limited to, the invitation for bids, required contract provisions and certifications for Federal-aid projects (when applicable), labor requirements, instructions to bidders, environmental requirements, standard and supplemental specifications, special provisions, standard drawings, project plans, any addenda issued, bid bond, proposal schedule, statement of the bidder, executed agreement, performance bond, payment bond, notice to proceed and any other documents agreed to subsequent to the award of contract which provide for the completion of the work in an acceptable manner, such as change orders, extra work orders and supplemental agreements.

### **Contract Item (Pay Item)**

A specific unit of work, described in the contract documents, for which a price is provided in the proposal schedule.

### **Contract Time**

The number of calendar days or working days as specified in the contract, including authorized time extensions, allowed for the completion of the work or services covered by the contract. If a specific calendar date for completion is specified in the contract documents in lieu of a number of calendar days or working days, the contract shall be completed by such specific date.

### **Contract Unit**

A major subdivision of a construction project identified as such in the contract documents.

## **GENERAL PROVISIONS**

<b>Contractor</b>	The individual, partnership, firm, corporation or other legal entity contracting with the Authority for the performance of the prescribed work.
<b>Culvert</b>	Any structure that provides an opening under the roadway but that does not meet the classification of a bridge.
<b>Days</b>	Calendar or working days. When not otherwise indicated in the Contract documents, the term days shall be interpreted as calendar days.
<b>Department</b>	The Puerto Rico Department of Transportation and Public Works.
<b>Director</b>	The Executive Director of the PUERTO RICO HIGHWAY AND TRANSPORTATION AUTHORITY.
<b>Drawings</b>	See Plans.
<b>Engineer</b>	The Executive Director of the Highway Authority acting directly or through a duly authorized assistant or representative acting within the scope of the particular duties assigned to him and within the scope of the authority vested in him by the Director.
<b>Equipment</b>	All machinery and implements, together with the necessary supplies for upkeep and maintenance, and also all tools and apparatus necessary for the proper construction and acceptable completion of the work.

## **GENERAL PROVISIONS**

<b>Extra Work</b>	An item of work not provided for in the contract as awarded but found by the Engineer essential for the satisfactory completion of the contract within its intended scope.
<b>Extra Work Order</b>	A written order issued by the Engineer concerning the performance of work or furnishing of materials involving extra work. Such extra work may be performed at agreed prices or on a force account basis as provided elsewhere in these specifications.
<b>Federal Agencies</b>	Any agency of the Government of the United States of America.
<b>Force Account Work</b>	Extra work that is paid for on the basis of actual costs for labor, materials, equipment, bonds, insurance and taxes, plus an established allowance, as provided elsewhere in these specifications.
<b>Highway, Street or Road</b>	A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.
<b>Highway Section (Road Section)</b>	That portion of a highway included between the top of the slope in cut and the bottom of the slope in fill.
<b>Holidays</b>	Sundays and the legal holidays listed below on which the Contractor will not be allowed to perform work under the contract except as otherwise ordered or authorized in writing by the Engineer. All other holidays not listed below will be considered working days. Also,

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if any of the listed holidays falls on a Sunday, the following Monday will be considered a holiday.

New Year's Day	.....	January 1
Three Kings Day	.....	January 6
Good Friday	.....	Variable
Independence Day	.....	July 4
Constitution Day	.....	July 25
Labor Day	.....	First Monday in September
Election Day (when occurring)	.....	Tuesday after 1 <sup>st</sup> Monday in November
Thanksgiving	.....	Fourth Thursday in November
Christmas Day	.....	December 25

**Inspector** An authorized representative of the Engineer assigned to make detailed inspections of performance of any or all portions of the work included in the contract.

**Invitation for Bids** The advertisement for proposals for all work or materials on which bids are requested. Such advertisement will indicate in general terms the work to be performed, its location, the range of estimated cost and the time and place of the opening of proposals.

**Laboratory** The materials testing laboratory of the Highway Authority or any other testing laboratory which may be designated by the Engineer.

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<b>Materials</b>	Any substances specified for use in the construction of the project and its appurtenances.
<b>Notice to Proceed</b>	A written notice issued by the Authority to the Contractor to proceed with the contract work including, when applicable, the date of beginning of contract time.
<b>Pavement Structure</b>	The combination of subbase, base course, and surface course placed on a subgrade to support the traffic load and distribute it to the roadbed.
• <b>Subbase</b>	The layers of specified or selected material of designed thickness placed on a subgrade to support a base course.
• <b>Base course</b>	The layer or layers of specified or selected material of designed thickness placed on a subbase or a subgrade to support a surface course.
• <b>Surface course</b>	One or more layers of a specified material designed to accommodate the traffic load, the top layer of which is designed to resist skidding, traffic abrasion, and the disintegrating effects of climate. The top layer is sometimes called the “Wearing Course”.
<b>Pay Item</b>	See Contract Item.

## **GENERAL PROVISIONS**

<b>Payment Bond</b>	The security required to be furnished by the Contractor and his Surety and approved by the Authority to guarantee the payment of all persons or entities supplying labor, material and equipment in the prosecution of the work or services required for completion of the contract.
<b>Performance Bond</b>	The security required to be furnished by the Contractor and his Surety and approved by the Authority to guarantee the completion of all the requirements of the contract.
<b>Plans</b>	The approved contract drawings, including reproductions thereof, which show the location, character, and dimensions of the prescribed work including layouts, profiles, cross sections and other details.
<ul style="list-style-type: none"><li>• <b>Standard plans (Standard drawings)</b></li></ul>	Drawings approved for repetitive use, showing details to be used where appropriate, included in the plans or published as a separate document.
<ul style="list-style-type: none"><li>• <b>Working drawings</b></li></ul>	Supplemental design sheets or similar data that the Contractor is required to submit, such as but not limited to stress sheets, shop drawings, erection plans, falsework plans, framework plans, cofferdam plans, and bending diagrams for reinforcing steel.
<b>Presplitting</b>	A method of controlled blasting used in rock excavation as set forth in the technical specifications for earthwork.

## **GENERAL PROVISIONS**

<b>Profile grade</b>	The trace of a vertical plane intersecting a particular surface of the proposed road construction located as shown on the plans. Profile grade means either elevation or gradient of such trace according to the context.
<b>Project</b>	The specific section of the highway together with all appurtenances and construction to be performed thereon under the contract.
<b>Proposal</b>	See Bid.
<b>Proposal Schedule</b>	The prescribed form included in the Contract Book on which the written and signed offer of a bidder to perform the work at the prices quoted and within the specified time is submitted.
<b>Proposal Guaranty</b>	The bid bond or other security acceptable to the Authority furnished by the bidder with his proposal, as a guaranty that he will enter into a contract for the work if his proposal is accepted.

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<b>Reasonably Conformity</b>	<b>Close</b>	Compliance with reasonable and customary manufacturing and construction tolerances where working tolerances are not specified. Where working tolerances are specified, reasonably close conformity means compliance with such working tolerances. Without detracting from the complete and absolute discretion of the Engineer to insist upon such tolerances as establishing reasonably close conformity, the Engineer may, at his option, accept variations beyond such tolerances as reasonably close conformity where they will not materially affect the value or utility of the work and the interests of the Commonwealth.
<b>Resident or Inspector</b>	<b>Engineer Resident</b>	The authorized representative of the Engineer in immediate charge of the crew performing the inspection of the construction work at the project.
<b>Right-of-way</b>		A general term denoting land, real property, or interest therein, acquired for or devoted to transportation purposes.
<b>Roadbed</b>		The graded portion of a highway within top and side slopes, prepared as a foundation for the pavement structure and shoulders.

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<b>Roadbed Material</b>	The material in cuts and embankments and in embankment foundations from the subgrade surface down, extending to such depth as affects the support of the pavement structure.
<b>Roadside</b>	A general term denoting the area adjoining the outer edge of the roadway. Extensive areas between the roadways of a divided highway may also be considered roadside.
<b>Roadside Development</b>	Those items necessary to the complete highway, which provide for the preservation of landscape materials and features; the rehabilitation and protection against erosion of all areas disturbed by construction through seeding, sodding, mulching and the placing of other ground covers; such suitable placing of other improvements as may increase the effectiveness and enhance the appearance of the highway.
<b>Roadway</b>	The portion of a highway included within the outer edges of the shoulders.
<b>Secretary</b>	The Secretary of Transportation and Public Works of Puerto Rico.
<b>Shoulder</b>	The portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.
<b>Sidewalk</b>	That portion of the roadway primarily constructed for the use of pedestrians.

## GENERAL PROVISIONS

<b>Special Provisions</b>	Special requirements or directions, and revisions and additions to standard and supplemental specifications, which are applicable to an individual project.
<b>Specialty Item</b>	A contract item which is specifically identified in the contract documents as exempted from the computations to determine the total amount of the work that the Contractor may be authorized to subcontract.
<b>Specifications</b>	A general term applied to all directions, provisions and requirements for the performance of prescribed work.
<ul style="list-style-type: none"><li>• <b>Standard Specifications</b></li></ul>	The set of specifications approved by the Director for general application and repetitive use.
<ul style="list-style-type: none"><li>• <b>Supplemental Specifications</b></li></ul>	Approved additions or revisions to the standard specifications.
<ul style="list-style-type: none"><li>• <b>Reference Specifications</b></li></ul>	Specifications issued by other organizations such as AASHTO, ASTM, ANSI, etc., which are referred to and made part of the Authority's specifications and other contract documents. Unless otherwise specifically indicated in the contract documents, references cited shall be the edition of such specifications in effect at the time the project is advertised for bids.

## **GENERAL PROVISIONS**

<b>Structures</b>	Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, endwalls, buildings, sewers, service pipes, underdrains, foundations drains and other features which may be encountered in the work and not otherwise classed herein.
<b>Sub-contractor</b>	An individual, partnership, firm, corporation or other legal entity to whom the Contractor, with the written consent of the Authority, sublets a part of the work under the contract.
<b>Subgrade</b>	The top surface of a roadbed upon which the pavement structure, shoulders and curbs, if any, are constructed.
<b>Substructure</b>	All of that part of the structure below the bearings of simple and continuous spans, skewbacks of arches and tops of footings of rigid frame; including backwalls, wingwalls and wing protection railings.
<b>Superintendent</b>	The Contractor's authorized representative in responsible charge of the work.
<b>Superstructure</b>	The entire bridge structure above the substructure, including the anchorage and anchor bolts but excluding the backwalls, wingwalls and wing protection railings.

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<b>Supplemental Agreement</b>	A written agreement between the Contractor and the Authority covering work to be performed under an extra work order.
<b>Surety</b>	The insurance or bonding corporation or other legal entity, other than the Contractor, authorized to do business in Puerto Rico, bound with and for the Contractor for the proposal guaranty, the payment bond, the performance bonds, or other bonds and insurances required by the contract documents.
<b>Traveled Way</b>	The portion of the roadway designated for the movement of vehicles, exclusive of the shoulders and auxiliary lanes.
<b>Utility</b>	A public or privately owned agency and the lines and facilities for producing, transmitting or distributing communications, power, electricity, gas, oil, gasoline, water, sewer and similar commodities for public or private use.
<b>Work</b>	The furnishing of all labor, materials, equipment and incidentals necessary or convenient to the successful and satisfactory completion of the project and the carrying out of the duties and obligations imposed by the contract upon the Contractor.

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**Working Day** A calendar day, exclusive of Sundays and designated legal holidays, on which weather and other conditions not under the control of the Contractor will permit construction operations to proceed for the major part of the day, with the normal work force, on the principal item or items of work which would normally be in progress at that time.

**Work Order** A written order, signed by the Engineer, of a contractual status requiring performance by the Contractor without negotiation of any sort.

**101.04 Other Abbreviations and Terms** - The Authority's Highway Design Manual contains additional abbreviations and terms, not included above, which are used in the plans and other contract documents. Such abbreviations and terms shall be interpreted as defined in the Highway Design Manual.

## **SECTION 102 BIDDING REQUIREMENTS AND CONDITIONS**

**102.01 Advertisement** - The Authority will give notice to prospective bidders for the letting of work. This notice may be published as an advertisement of request for proposals. The notice will contain the date of the letting, place and time of opening of the proposals, a description of the proposed work, the range of estimated cost, the address of the place where the contract book and plans may be obtained, the sum to be paid to obtain the contract book and plans, the amount and nature of the proposal guaranty, the date, time and place of any scheduled prebid meeting, and any other information considered by the Authority to be pertinent to the bidding.

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### **102.02 Qualification of Bidders**

- a. Bidders shall complete all the items in the Statement of the Bidder included in the Contract book as an integral part of their proposal.
- b. In addition, before a bid is considered for award, the Authority may require the bidder, to submit additional information on his organization, equipment, previous experience in performing comparable work and his financial resources.

### **102.03 Contents and Issuance of Proposals**

- a. Upon request and payment of the required fee, the Authority will furnish a prospective bidder with a set of project plans and a contract book to be used by the bidder to submit his proposal. All prospective bidders must provide, at the time of receipt of the contract documents, a local address in Puerto Rico where delivery can be made of any addenda subsequently issued.
- b. The contract book will contain the project description; required contract provisions including, when applicable, those required on Federal-aid construction contracts; wage rates and other labor requirements; instruction to bidders; environmental requirements; non-collusive affidavit; eligibility affidavit; supplemental specifications; special provisions; bid bond form; proposal schedule; statement of the bidder questionnaire; performance and payment bond forms; contract form; and other documents and contract requirements applicable to the project.

- (1) All papers bound with or attached to the contract book are considered a part thereof.

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(2) The plans, standard specifications and other documents designated in the contract book will be considered as part of the proposal whether or not attached to the contract book.

c. The Authority has the right to issue addenda to the contract documents covering interpretations, revisions or changes, at any time up to five (5) working days prior to the opening of bids. These will be delivered to each prospective bidder at the address in Puerto Rico given by him when he obtained the contract book. Such addenda shall become a part of the contract documents. Any revised or additional proposal schedule sheets shall be appended to bidder's proposal when submitted.

d. Each prospective bidder or interested person will be required to pay the Authority the sum stated in the advertisement for each set of the contract documents that he obtains. This amount is not reimbursable.

e. The plans and contract book will be available, after the project is advertised, for inspection by any person having a legitimate interest in the project, at the Office of Estimates and Bids of the Authority during normal working hours.

**102.04 Interpretation of Quantities in the Proposal Schedule** - The quantities of work to be performed and materials to be furnished appearing in the proposal schedule are approximate only and are to be used for the comparison of bids. The Authority does not guarantee that the quantities given in the proposal schedule will be the actual construction quantities. Payment to the Contractor will be made for the actual quantities of work performed and accepted or materials furnished in accordance with the contract, and it is understood that the scheduled quantities of work to be done and materials to be furnished may each be increased, diminished, or omitted as hereinafter provided without in any way invalidating the contract.

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### **102.05 Examination of Plans, Specifications, Special Provisions and Site of Work**

- a. The bidder is expected to examine carefully the site of the proposed work, the contract book, the standard specifications, and the plans before submitting a proposal. It is mutually agreed that submission of a bid shall be considered prima facie evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the plans, specifications, special provisions and other contract documents.
- b. Boring logs, water elevations, profiles and other subsurface information shown on the plans, or available at the Authority for inspection by the bidders, were obtained by the Authority for use in the study and design of the project. Such data is made available to the bidders in good faith so that they may have access to the same subsurface information and other data available to the Authority and is not intended as a substitute for the personal investigation, interpretation and judgement of the bidders.
- c. Any questions or requests for clarification of the plans, specifications or contract book documents shall be submitted in writing no later than ten (10) days prior to the opening of bids. Such requests shall be addressed to the Director of the Design Area or his designated representative. Questions and requests for clarification may also be raised at the pre-bid meeting if one is held. The Authority will issue addenda covering such revisions and/or additions to the contract documents which are considered necessary from questions raised or clarifications requested in writing or at the pre-bid meeting.

**102.06 Pre-Bid Meeting** - The advertisement for bids will indicate if a pre-bid meeting is to be held and the time and place for such meeting. Individuals, partnerships, firms or corporations that intend to compete as a joint venture, will declare in writing such an

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intention and the members of the joint venture at the pre-bid meeting. When the project does not include a pre-bid meeting such intention will be notified to the Executive Director five (5) calendar days prior to the opening of bids.

### **102.07 Preparation of Proposals**

a. The bidder shall submit his proposal on the forms furnished by the Authority in the contract book. These forms include the proposal schedule, bid bond, non-collusive affidavit, statement of the bidder and other documents as specified in the contract book. In addition to these forms, the bidders shall submit an accurate and exact copy of the original proposal schedule submitted.

b. The bidder shall specify a unit price in dollars and cents in both words and figures, for each pay item included in the proposal schedule. He shall also show the products of the respective unit prices and the quantities written in figures in the column provided for that purpose, and the total amount of the proposal obtained by adding the amounts of the several items. All the words and figures shall be written in ink or typed. In case of discrepancy between the prices written in words and those written in figures, the prices written in words shall govern. Erasures and other changes in the proposal schedule shall be initialed by the bidder. A pay item with more than one erasure or change shall have the initials of the bidder at every erasure or change in that pay item.

c. When the proposal schedule calls for prices on alternate items, the contractor may, at his option, bid on either the basic item or the alternate, or on both, unless otherwise provided in the contract documents, "No bid" shall be entered in the appropriate spaces for items or alternates for which no bids are submitted.

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d. When the proposal schedule contains more than one contract unit, the bidder shall submit proposals for every unit unless otherwise provided in the contract documents. It shall be understood that the unit price bid for a work item within a contract unit applies specifically to work included under that contract unit. If the same type of work appears under another contract unit, the unit price bid under this other contract unit will apply to the work under such other contract unit.

e. The bidder's proposal shall be signed in ink by the individual, by one or more members of the partnership, by one or more officers of each firm representing a joint venture, by one or more officers of a corporation, or by an agent of the bidder legally qualified and acceptable to the Authority. The corporate seals shall be stamped on the proposal documents with the signatures.

f. If the proposal is made by an individual, his name and post office address must be shown; by a partnership, the name, post office and business address of each member of the partnership must be shown; by a joint venture, the name and post office address of each member or officer of the firms represented by the joint venture must be shown; by a corporation, the name of the corporation and the business addresses of its corporate officials must be shown.

### **102.08 Proposal Guaranty**

a. The proposal guaranty shall be a certified check, or a cashier's check from a bank authorized to do business in Puerto Rico, or a bid bond payable to the Authority in an amount not less than the amount specified in the advertisement for bids and the contract book. The bid bond shall be executed in the form provided in the contract book or on a form provided by the surety company but written in substantially the same language as the Authority's form.

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b. The bid bond shall be issued by a surety company that has successfully met the requirements of the Insurance Regulatory Information System as prescribed by the National Association of Insurance Commissioners and of the Insurance Code of Puerto Rico, has been authorized by the Commissioner of Insurance of Puerto Rico to transact surety insurance, and is acceptable to the Authority.

**102.09 Non-Collusive Affidavit** - The bidder shall submit, as an integral part of his proposal, an original of a sworn statement, subscribed and affirmed as true under the penalties of perjury, certifying that he has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract. This sworn statement shall be in the form of an affidavit executed and sworn to by the bidder before a person who is authorized by the laws of this Commonwealth to administer oaths. The affidavit shall follow the format included in the contract book.

**102.10 Eligibility Affidavit** - Prospective participants in a contract, including the contractor, subcontractors and principals, shall submit a certification as to their current history regarding debarment eligibility, indictments, convictions or civil judgments. This certification shall follow the format included in the contract book. In the case of bidders the certification shall be submitted with their proposals. The sub-contractors certifications shall be submitted at the time each sub-contractor is submitted for approval by the Authority.

### **102.11 Delivery of Proposals**

a. Each proposal, including all the required forms properly executed as per Section 102.07, shall be enclosed in a sealed envelope plainly marked with the project number, name and location of the proposed work and the name and address of the bidder written on the outside. All proposals shall be filed prior to the time and at the place specified in the advertisement.

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Proposals received after the time for opening of proposals will be rejected and returned unopened to the Bidder.

- b. Proposals may be submitted by registered mail in which case the sealed proposal shall be enclosed in a larger envelope addressed to the Board of Awards of the Authority. Mailed proposals received after the specified date and time for opening of proposals will be rejected and returned unopened to the bidder.

**102.12 Withdrawal of Proposals** - A bidder may withdraw or revise his proposal after it has been deposited with the Authority, provided the request for such withdrawal or revision is received by the Authority in writing or by telegram before the time set for opening of proposals.

**102.13 Public Opening of Proposals** - Proposals will be opened and read aloud publicly by the Board of Awards at the time and place indicated in the advertisement. Bidders, their authorized agents, and other interested parties are invited to be present. However, any proposals determined to be unacceptable at the public opening will not be read and the reasons for rejection will be publicly stated.

### **102.14 Rejection of Proposals and Disqualification of Bidders**

- a. The Board of Awards will reject a proposal for any of the following irregularities:
  - (1) If the proposal is on forms other than the proposal forms issued or specified by the Authority.
  - (2) If there are unauthorized additions, omissions, conditional or alternate bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite, or ambiguous as to its meaning.

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(3) If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.

(4) If the proposal fails to contain a unit price, in ink or typed, for every item indicated, except in the case of authorized alternate items, and if the bidder failed to show the unit prices in dollars and cents in both words and figures in the proposal schedule. Zero unit prices will not be acceptable.

(5) If the proposal does not include an acceptable proposal guaranty.

(6) If the proposal does not include all required certificates, affidavits, signatures and corporate seals.

(7) If the proposal has erasures, deletions, crossing out of words or numbers and/or changes in the unit price written in words or in the unit price written in numbers which are not initialed by the bidder.

(8) If the copy of the proposals schedule submitted by the bidder is not an accurate and exact copy of the original proposal schedule as required under paragraph a. of Article 102.07.

b. The Authority may reject a proposal in which its prices are obviously unbalanced.

c. The Authority reserves the right to disqualify a bidder from bidding on a project and reject his proposal for any of the following reasons:

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- (1) Lack of competency, adequate organization, plant, machinery and other equipment for the project being bid, or inadequate financial resources as revealed by the statement of the bidder questionnaire and other information required under Article 102.02.
  - (2) Failure to comply with any prequalification requirements established by the Authority.
  - (3) Unsatisfactory performance record in previous and/or current contract work for the Authority, as judged on the basis of workmanship and/or progress.
  - (4) Amount of uncompleted work under other contracts or obligations which in the judgement of the Authority might result in unsatisfactory progress in additional work if awarded.
  - (5) Default under previous contracts with the Authority or other Commonwealth agencies.
- d. The Authority will disqualify a bidder from bidding on a project and reject his proposal for any of the following reasons:
- (1) More than one proposal for the same work from an individual, firm, or corporation under the same or different names.
  - (2) Evidence of collusion among bidders. Participants in such collusion will receive no recognition as bidders for any future work of the Authority until any such participant shall have been reinstated as a qualified bidder.
- e. The Board of Awards will publicly advise on the rejection of any proposal for any of the above causes noted and acted on at the time the proposals are opened and examined.

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However, the proposals will be retained by the Authority for further review and record purposes.

### **SECTION 103      AWARD      AND      EXECUTION      OF CONTRACT**

#### **103.01              Consideration of Proposals**

a.      After the proposals are opened, those which are accepted and read will be compared on the basis of the summation of the products of the approximate quantities shown in the bid schedule by the unit price bid. The summation will be considered the amount of the bid. The results of such comparison will be made available to the public. In the event of a discrepancy between unit bid price and extensions, the unit bid price shall govern.

b.      The Authority reserves the right to disqualify any bidder or reject any proposal, before or after reading, for any of the reasons specified in Article 102.14 of these General Provisions or to waive any technicality or irregularity for which rejection is not mandatory.

c.      The Board of Awards will evaluate all proposals received and will recommend to the Director any of the following actions:

(1)      Award to the lowest responsible and qualified bidder whose proposal complies with all the prescribed requirements.

(2)      Disqualify any bidder and/or reject any proposal as provided in paragraph “b” immediately above.

(3)      Reject all proposals and advertise for new proposals for the same work with any modifications deemed desirable.

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(4) Reject all proposals and perform the work by Commonwealth forces.

(5) In the case of tied low proposals by two or more bidders, reject all proposals and advertise for new proposals or decide by the flip of a coin.

d. When the proposal schedule provides for alternate bid items, the low bid will be determined on the basis of the lowest summation provided by the various possible combinations of alternate bid items unless otherwise indicated in the contract documents.

### **103.02 Award of Contract**

a. The award of the contract, if it be awarded, will be made within forty five (45) calendar days after the opening of proposals. However, if additional information is required from the low bidder under the provisions of Article 102.02c., the 30-day period shall begin on the date the required data is received at the Authority. The successful bidder will be notified, by letter mailed to the address shown on his proposal, that his bid has been accepted and that he has been awarded the contract.

b. In the event the award is not made within the time specified, any bidder whose proposal guaranty has been retained shall have the right to withdraw his proposal without penalty unless the 45-calendar day period is extended by mutual written consent.

c. When the proposal schedule calls for alternate bid items and the Contractor bids the same price for both the basic and the alternate items, the Authority reserves the right to select whether the basic or the alternate item will be used and included in the contract.

d. If the proposal schedule includes more than one contract unit, the award, if made, will include all the units.

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Separate awards by units will not be made unless specifically called for in the request for proposals and the contract documents.

**103.03 Cancellation of Award** - The Authority reserves the right to cancel the award of any contract at any time before the execution of said contract without any liability against the Authority.

**103.04 Return of Proposal Guaranty** - All proposal guaranties except those of the two lowest bidders will be returned immediately following the opening and consideration of the proposals. The retained proposal guaranties of the two lowest bidders will be returned after the contract with the successful bidder has been executed. If no award is made the retained proposal guaranties will be returned to the bidders after the decision of not to award is taken by the Authority.

### **103.05 Contract Bonds and Insurances**

a. Not later than fifteen (15) working days after receipt of the notice of award or at the time the contract is executed, whichever is earlier, the bidder to whom the award is made shall furnish on the prescribed forms, performance and payment bonds, each in the amount of 50 percent of the original contract amount, unless otherwise stated in the contract documents.

b. In addition to the payment and performance bonds, the successful bidder shall furnish to the Authority, prior to the time the contract is executed, certificates of insurance, in forms satisfactory to the Authority, covering the following insurance requirements:

(1) Workmen's compensation insurance as required by Puerto Rico's Workmen's Compensation Act and issued by the State Insurance Fund. The certificate shall show that all personnel to be employed in the work are covered. The Contractor agrees that the

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premium payable to the State Insurance Fund will be paid as prescribed and upon failure to do so, the Authority will pay in the name of the Contractor the premium due the Fund in order to maintain the coverage in full force and effect. Any such payment by the Authority will be withheld from the next regular payment or payments due the Contractor. This agreement in no way releases the Contractor from the liabilities or obligations under the Workmen's Compensation Act nor does the Authority assume any liabilities or obligations of the Contractor in this respect.

(2) Employees Liability Insurance covering all of his project employees who are exempt from the Workmen's Compensation Act requirements and providing minimum bodily injury limits of \$100,000 for each accident, covering against the liability imposed by law upon the Contractor as a result of bodily injury including death accidentally suffered in the course of employment.

(3) Fire and extended coverage insurance, earthquake insurance and vandalism insurance covering the full value of each structure with a contract estimate of \$150,000 or more and including all materials and supplies furnished or delivered to the project but not as yet paid by the Authority. The policies shall be in the names of the Authority and the Contractor, as their interests may appear, and shall provide for the inclusion of the names of all other contractors, subcontractors and others employed on the premises as insured, and shall stipulate that the insurance companies shall have no right of subrogation against any contractors, subcontractors, or other persons employed on the premises for any work performed thereon. A certified copy of these policies shall be furnished in lieu of certificates of insurance. Approval of the insurance by

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the Authority shall not relieve the Contractor of liability for loss or damage in excess of the policy coverage, or limits specified herein.

(4) Liability insurances as specified in Article 107.16.

c. The insurance certificates shall provide that the insurance policies shall not be changed or cancelled until thirty (30) days written notice has been given to the Authority.

d. The payment and performance bonds and the other required insurances shall be obtained from surety companies authorized to do business in Puerto Rico by the Commissioner of Insurance and acceptable to the Authority. The surety companies shall have successfully met the requirements of the Insurance Regulatory Information System as prescribed by the National Association of Insurance Commissioners and the requirements of the Insurance Code of Puerto Rico. A written authorization from the insurance company may be required of the bidder within a period of ten (10) calendar days after the opening of bids to enable the Authority to obtain evidence from the Commissioner of Insurance on the compliance of said insurance company with the Insurance Regulatory Information System. Nevertheless, the Authority reserves the right to accept or reject any company in order to protect its best interest. Any insurance company authorized to transact surety business but that is under a "Capital Impairment Order" issued by the Commissioner of Insurance will not be considered acceptable. If the impairment is cured, the affected company shall so inform the Authority.

e. The Contractor shall insure that all his subcontractors and agents comply with the workmen's compensation insurance requirements and maintain in effect other insurance as required in these General Provisions. The Contractor shall be responsible for the compliance by his sub-contractors with all applicable insurance requirements.

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f. The required bonds and insurance policies will be an integral part of the contract, shall be included in the contract documents and shall cover the area of the project and the area of operations of the Contractor.

g. The Contractor and his subcontractors shall, throughout the performance of the work under the contract and until the final acceptance of the project, maintain current and in effect all the required insurances. If on the due date of any of the policies the project is still under construction and the Contractor has not renewed the policy, the Authority can renew it and deduct the amount paid for the premium from the next payment due the Contractor.

### **103.06 Puerto Rico Internal Revenue and CIA Stamps**

a. The Contractor shall deliver to the Authority, prior to the execution of the contract, tax stamps as follows.

(1) Puerto Rico Internal Revenue Stamps in the amount of \$3.00.

(2) Colegio de Ingenieros y Agrimensores (CIA) stamps in the amount of \$1.00 for every \$1,000.00, or fraction thereof, of the total original contract amount.

b. At the time of final acceptance and when the final estimate for the project is completed and approved, if the final estimate exceeds the original contract estimate, the Contractor shall deliver to the Authority, prior to receiving final payment, CIA stamps to cover the difference between the final estimate and the original contract estimate. The value of the required stamps shall be determined and provided in paragraph a.(2) above.

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**103.07 Execution of Contract** - The bidder to whom the contract is awarded shall execute the contract within fifteen (15) calendar days after the date of notice of award. The contract will be signed in the name of the Authority by the Secretary of the Department of Transportation and Public Works or the Executive Director of the Authority or any authorized representative. No proposal shall be considered binding upon the Authority until the contract has been so signed. The Contractor will be furnished with a signed copy of the Contract.

### **103.08 Failure to Execute Contract**

a. Failure of the bidder to whom an award is made to submit the required documents within the prescribed time and to execute the contract within thirty (30) calendar days after the date of notice of award, unless an extension of time is granted by the Authority, shall be just cause for cancellation of the award and the forfeiture of the proposal guaranty which shall then become the property of the Authority, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible bidder, or the work may be readvertised, or performed as the Authority may decide.

b. In case that the Secretary or his authorized representative fails to execute the contract within the thirty (30) days after the successful bidder has submitted all the prescribed documents in good order, the bidder may withdraw his proposal without forfeiture of the proposal guaranty, unless the bidder agrees in writing to a longer period.

## **SECTION 104 SCOPE OF WORK**

**104.01 Intent of Contract** - The intent of the Contract is to provide for the construction and completion in every detail of the work described. The Contractor shall furnish all labor, materials, equipment, tools, transportation and supplies required to complete the work in accordance with the plans, specifications and terms of the contract.

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### **104.02            Alteration of Plans or Character of Proposed Work**

a.        The Authority reserves the right to make, at any time during the progress of the work, such increases or decreases in quantities and such alterations in the work as necessary to satisfactorily complete the project. Such increases or decreases and alterations shall not invalidate the contract nor release the Surety, and the Contractor agrees to perform the work as altered.

b.        Unless such alterations and increases or decreases materially change the character of the work to be performed or the costs thereof, the altered work shall be paid for at the same unit prices as other parts of the work. If, however, the magnitude of the alterations is such as to alter the scope of work specified in the contract by materially changing either the character or the unit costs of the work under the contract, whether or not changed by any such alteration, an adjustment will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work; if a basis cannot be agreed upon, then the Authority reserves the right to require the Contractor to perform the work by force account as per Article 109.04, to eliminate the increased quantity from the contract, or to perform the work in other manner.

c.        If the altered or added work is of sufficient magnitude to require additional time in which to complete the project, such time adjustments may be made in accordance with the provisions of Article 108.08

### **104.03            Increased or Decreased Quantities**

a.        The quantities in the proposal schedule are approximate only and the actual quantities to be paid for cannot be determined until the work is performed and accepted. Increases or decreases in the proposal schedule quantities, other than as provided under paragraph 104.02.b., will be considered as

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normal overruns or underruns, and the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract unit prices for the accepted quantities of work performed.

b. The Engineer may order omitted from the work any portions of work and such omissions shall not be considered as a waiver of any conditions of the contract nor invalidate any of the provisions thereof, nor shall the contractor have any claim for loss of anticipated profits on this eliminated work.

c. No allowance will be made for any increased expenses, loss of expected reimbursement, or loss of anticipated profit claimed by the Contractor, except as may be specifically provided in the specifications, resulting either directly or indirectly from such increased or decreased quantities, or from unbalanced allocation among the contract items of overhead expenses on the part of the Contractor and subsequent loss of expected reimbursement thereof, or from any other cause.

**104.04 Eliminated Items** - Should any items included in the proposal schedule be found unnecessary for the completion of the work, the Engineer may, upon written order to the Contractor, eliminate such items, wholly or in part, from the contract, and such action shall in no way invalidate the contract. The Contractor will be reimbursed for materials purchased and actual work performed prior to notification of the elimination of the items, and certain transportation costs, to the extent provided in Article 109.05.

### **104.05 Differing Site Conditions**

a. Should the Contractor encounter during the progress of the work subsurface or latent physical conditions at the site differing materially from those indicated in the contract or unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work of the character provided for in the contract, the Contractor shall promptly

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notify the Engineer in writing of the specific differing conditions before they are disturbed or the affected work is performed. Upon written notification, the Engineer will promptly investigate the conditions, and if the Engineer determines that they do materially differ and cause an increase or decrease in the cost of, or the time required for the performance of any part of the work under the contract, whether or not changed as a result of the conditions, an equitable adjustment will be made and the contract modified in writing accordingly.

b. No contract adjustment for the benefit of the Contractor shall be allowed unless the Contractor has given the written notice required.

### **104.06 Extra Work**

a. The Contractor shall perform unforeseen work, for which there is no price included in the contract, whenever it is deemed necessary or desirable by the Engineer. Such extra work shall be performed in accordance with the applicable specifications, standard plans, the contract documents, and as directed by the Engineer.

b. Payment for such extra work shall be at the prices agreed upon between the Authority and the Contractor as specified in the approved extra work order.

c. If agreement on the prices for the extra work cannot be reached between the Authority and the Contractor, the Authority may order in writing the Contractor to perform the required work on a force account basis and the Contractor shall then execute the order. Payment for such force account work shall be as specified in Article 109.04. The Authority may also elect to have such work performed by the Commonwealth forces or by separate contract.

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d. The provisions of Articles 104.02 and 104.03 are applicable to new items included in approved extra work orders.

### **104.07 Maintenance of Traffic**

a. Unless otherwise provided, the existing road while undergoing improvements shall be kept open to all traffic by the Contractor. The Contractor may bypass traffic over a detour route where shown on the plans or approved by the Engineer, or by approved part width construction when so provided in the contract.

b. The Contractor shall keep the portion of the project being used by public traffic in safe and satisfactory condition including all temporary approaches or crossings and intersections with trails, roads, streets, business, parking lots, residences, garages, farms and other features as may be necessary.

c. The Contractor shall provide all traffic control devices and traffic control operations, in accordance with the Department's "Manual de Dispositivos Uniformes para el Control del Tránsito en las Vías Públicas de Puerto Rico", which may be necessary for the protection of the traveling public and his personnel. The Contractor shall also comply with the requirements of Specification 638 - Maintenance and Protection of Traffic.

d. Payment for the furnishing, installation and maintenance of traffic control devices during construction will be as provided in Specification 638 - Maintenance and Protection of Traffic. Payment for detours and temporary widenings called for in the construction traffic plan shall be as specified in the contract documents.

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e. If the Engineer directs special maintenance for the benefit of the traveling public not otherwise included in the contract, then the Contractor will be paid on the basis of unit prices or under Article 104.06 Extra Work. The Engineer will determine the work to be classed as special maintenance.

### **104.08 Rights In and Use of Materials Found on the Work**

a. The Contractor, with the approval of the Engineer, may use in the construction such stone, gravel, sand or other material determined by the Engineer to be acceptable for the use intended, as may be found in the excavation and will be paid both for the excavation of such materials at the corresponding contract unit price and for the pay item for which the excavated material is used. However, he shall replace at his own expense with other material acceptable to the Engineer all that portion of the excavation material so removed and used which was originally needed for use in embankments, backfills, or other work. No charge for materials so used will be made against the Contractor except that he shall replace it as provided above.

b. The Contractor shall not excavate or remove any material from within the right-of-way which is not within the grading limits as indicated in the plans and established in the field, without prior written authorization by the Engineer.

c. Unless otherwise provided in the contract documents, material from any existing structures to be removed may be used temporarily by the Contractor in the erection of new structures. However, if the material is to be salvaged for the Authority, its modification will not be permitted except as approved by the Engineer.

**104.09 Final Cleaning Up** - Before final acceptance, the highway, borrow pits, local material sources, and all areas occupied by the Contractor in connection with the work shall be cleaned up of all rubbish, excess materials, temporary structures, and equipment,

## **GENERAL PROVISIONS**

and all parts of the work shall be left in a neat and presentable condition. This clean up work shall be considered necessary to the satisfactory completion of the project and shall be a subsidiary obligation of the Contractor under other contract items and no direct payment will be made thereof.

### **SECTION 105 CONTROL OF THE WORK**

#### **105.01 Authority of the Engineer**

a. The Engineer will decide all questions which may arise as to the quality and acceptability of materials furnished and work performed and as to the manner of performance and rate of progress of the work; all questions which may arise as to the interpretation of the contract documents; and all questions as to the acceptable fulfillment of the contract on the part of the Contractor.

b. The Engineer will have the authority to suspend the work wholly or in part due to the failure of the Contractor to correct conditions unsafe for the workmen or the general public; for failure to carry out provisions of the contract; for failure to carry out orders; for such periods as he may deem necessary due to unsuitable weather; for conditions considered unsuitable for the prosecution of the work or for any other conditions or reason deemed to be in the public interest. Notice of such suspensions will be issued in writing.

#### **105.02 Plans and Working Drawings**

a. Plans furnished by the Authority will show details of all structures, lines, grades, typical cross sections of the roadway, location and design of all structures and a summary of items appearing on the proposal. Only general features will normally be shown for steel bridges. The Contractor shall keep one set of plans available on the work at all times.

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b. The detail plans and specifications for the contract have been prepared with care and are intended to show as clearly as is practicable the work required to be done. The Contractor must realize, however, that construction details cannot always be accurately anticipated and that in executing the work, field conditions may require reasonable modifications in the details of plans and quantities of work involved. Work under all items in the contract must be carried out to meet these field conditions to the satisfaction of the Engineer and in accordance with his instructions and the contract specifications.

c. The plans will be supplemented by such working drawings as are necessary to adequately control the work. Working drawings for structures shall be furnished by the Contractor and shall consist of such detailed plans as may be required to adequately control the work and to complement the plans furnished by the Authority. They shall include stress sheets, shop drawings, erection plans, falsework plans, cofferdam plans, bending diagrams for reinforcing steel or any other supplementary plans or similar data required of the Contractor.

d. Working drawings and related documents submitted for manufactured and shop fabricated products shall be accompanied by a certification from the manufacturer that the materials and/or equipment meet all the requirements of the specifications. In the event that any item is not exactly in accordance with the requirements of the plans and specifications, the certificate shall identify and explain each such difference.

e. Unless otherwise indicated, all working drawings are subject to review and acceptance by the Engineer. Such review and acceptance shall not relieve the Contractor of any of his responsibilities for the safe and successful completion of the work. The Engineer will advise the Contractor in writing as to the acceptability of the submittal within 30 working days of its receipt.

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f. The cost of preparing and furnishing all required working drawings is considered as included in the contract prices for the work and no separate payment will be made for such drawings.

### **105.03 Conformity with Plans and Specifications**

a. All work performed and materials furnished shall be in reasonably close conformity with the lines, grades, cross sections, dimensions and material requirements, including tolerances, shown on the plans or indicated in the specifications and other contract documents.

b. Plan dimensions and contract specification values are to be considered the target values to be strived for and complied with as the design values to which any allowed tolerances are applied. Materials and workmanship shall be uniform in character and shall be reasonably close to the prescribed target value or to the middle portion of the tolerance range. When either a maximum or minimum value or both are specified, the production and processing of the material and the performance of the work shall be so controlled that material or work will not be preponderately of borderline quality or dimension.

c. When the specifications include an acceptance plan for any construction or materials characteristic, that acceptance plan will be used to determine the attainment of reasonably close conformity and to assign a value to the work which does not meet that standard.

d. In the event the materials furnished, work performed, or the finished product are not within reasonably close conformity with the plans and specifications but reasonably acceptable work has been produced, a determination will be made by the Engineer whether the work will be accepted and permitted to remain in place and the appropriate adjustment in the contract price for such work or materials.

## **GENERAL PROVISIONS**

- e. In the event the Engineer finds the materials furnished, work performed, or the finished product are not in reasonably close conformity with the plans and specifications and have resulted in an inferior or unsatisfactory product, such work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

### **105.04 Coordination of Plans, Specifications, Supplemental Specifications, Special Provisions and Other Contract Documents**

- a. These specifications, the supplemental specifications, special provisions, instructions to bidders, project plans, standard drawings, and all contract documents affecting the work, duly issued to the Contractor, are essential parts of the contract and a requirement occurring in one is as binding as if occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, numerical dimensions will prevail over scaled dimensions and the following contract documents will prevail in the order shown:

- (1) Special Provisions
- (2) Instruction to Bidders
- (3) Plans
- (4) Standard Drawings
- (5) Supplemental Specifications
- (6) Standard Specifications (including the General Provisions)

## **GENERAL PROVISIONS**

b. In the case of discrepancy between the pay unit for a work item shown in the Proposal Schedule and the pay unit for such item given in the specifications, the pay unit shown in the Proposal Schedule shall prevail for the purposes of measurement and payment.

c. The Contractor shall take no advantage of any apparent error or omission in the plans or specifications. In the event the Contractor discovers such an error or omission, he shall immediately notify the Engineer. The Engineer will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the plans and specifications.

### **105.05 Cooperation by Contractor**

a. The Contractor shall keep available on the work at all times one set of the approved plans, specifications, and contract book.

b. The Contractor shall give the work the constant attention necessary to facilitate the progress thereof, and shall cooperate with the Engineer, his inspectors and other contractors in every way possible.

c. The Contractor shall at all times have on the work as his agent, a competent superintendent capable of reading and thoroughly understanding the plans, specifications and other contract documents, and thoroughly experienced in the type of work being performed, who shall receive instructions from the Engineer or his authorized representatives. The Superintendent shall have full authority to execute orders or directions of the Engineer without delay, and to promptly supply such materials, equipment, tools, labor, and incidentals as may be required. Such superintendence shall be furnished irrespective of the amount of work sublet.

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### **105.06 Cooperation with Utilities**

- a. The Authority will notify all utility companies, all pipe line owners, or other parties affected, and endeavor to have all necessary adjustments of the public or private utility fixtures, pipe lines, and other appurtenances within or adjacent to the limits of construction, which are not to be performed by the Contractor, made in accordance with the project construction schedule.
- b. Water lines, gas lines, wire lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cableways, signals, and all other utility appurtenances within the limits of the proposed construction which are to be relocated or adjusted, are to be moved by the owners except for those to be performed by the Contractor as specifically provided in the contract documents.
- c. It is understood and agreed that the Contractor has considered in his bid all of the permanent and temporary utility appurtenances in their present or relocated positions as shown on the plans and that no additional compensation will be considered for any delays, inconvenience, or damages sustained by him due to any interference from the said known utility appurtenances or the operations of moving them, except in the case of failure by a utility to reasonably comply with its responsibility in relocating or adjusting its facility as required.

### **105.07 Cooperation Between Contractors**

- a. The Authority reserves the right at any time to contract for and perform other or additional work on or near the work covered by the contract.

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b. When separate contracts are let within the limits of any one project, each contractor shall conduct his work so as not to interfere with or hinder the progress or completion of the work being performed by other contractors. Contractors working on the same project shall cooperate with each other.

c. Each Contractor involved shall assume all liability, financial or otherwise, in connection with his contract and shall protect and save harmless the Authority from any and all damages or claims that may arise because of inconvenience, delay, or loss experienced by him because of the presence and operations of other contractors working within the limits of the same project.

d. The Contractor shall arrange his work and shall place and dispose of the materials being used so as not to interfere with the operations of other contractors within the limits of the same or adjacent project. He shall join his work with that of the other in an acceptable manner and shall perform it in proper sequence to that of the others.

e. If there are under construction other works by contract or otherwise, adjacent to the limits of the contract, the Contractor, if so ordered by the Engineer, shall permit access to the other works through the right-of-way of his contract. The Engineer may authorize the other contractor or agency in charge of the adjacent works to use said access, and shall prescribe limitations and regulations for such use as needed to protect the operations and work of the Contractor.

**105.08 Survey and Stake-out** - The Contractor shall perform all the survey and stake-out work required for the construction of the project in accordance with the requirements of Standard Specification 150 - Survey and Stake-out.

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### **105.09 Authority of the Resident Engineer**

As the direct representative of the Director, the Resident Engineer has immediate charge of the engineering details of the construction project. He is responsible for the administration and satisfactory completion of the project, and has the authority to reject defective material and to suspend any work that is being improperly performed.

### **105.10 Duties of the Inspectors**

- a. Inspectors employed by the Authority are authorized to inspect all work done and materials furnished, including the preparation, fabrication or manufacture of the materials to be used. Inspectors also have the authority to reject any materials and work until any questions at issue can be referred to and decided by the Engineer.
- b. Inspectors are not authorized to alter or waive the provisions of the contract, to issue instructions contrary to the plans and specifications, or to act as foreman for the Contractor.

### **105.11 Inspection of Work**

- a. All materials and each part or detail of the work shall be subject to inspection by the Engineer. The Engineer shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.
- b. If the Engineer requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra

## **GENERAL PROVISIONS**

work; but should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed, will be at the Contractor's expense.

c. Any work done or materials used without supervision or inspection by an authorized Authority representative may be ordered removed and replaced at the Contractor's expense unless the Authority representative failed to inspect after having been given reasonable notice in writing that the work was to be performed.

d. When any unit of government or any utility is to accept or pay for any portion of the contract work, its respective representatives shall have the right to inspect the work. Such inspection shall not make any unit of government or utility a party to the contract, and shall in no way interfere with the rights of either party hereunder.

e. The inspection of the work and materials by the Authority shall not relieve the Contractor of any of his obligations to fulfill the contract as prescribed in the plans, specifications and other contract documents.

### **105.12 Removal of Unacceptable and Unauthorized Work**

a. All work which does not conform to the requirements of the contract will be considered unacceptable, unless otherwise determined conditionally acceptable under the provisions of Article 105.03 of these General Provisions.

b. Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner by and at the Contractor's expense.

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c. If, during or prior to construction operations, the Engineer should fail to reject defective work or materials, whether from lack of discovery of such defect or for any other reason, such initial failure to reject shall in no way prevent his later rejection when such defect is discovered, or obligate the Authority to final acceptance, and the Contractor shall make no claim for losses suffered due to any necessary removals or repairs of such defects.

d. No work shall be done without lines and grades having been accepted by the Engineer. Work done contrary to the instructions of the Engineer, work done beyond the lines shown on the plans, or as given, except as herein specified, or any extra work done without authority, will be considered as unauthorized and will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

e. Upon failure on the part of the Contractor to comply with any order of the Engineer made under the provisions of this article, the Engineer will have authority to cause unacceptable work to be remedied or removed and replaced and unauthorized work to be removed and to deduct the costs of such corrective work from any monies due or to become due the Contractor.

### **105.13 Load Restrictions**

a. The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the project. A special permit will not relieve the Contractor of liability for damage which may result from the moving of equipment.

b. The operation of equipment of such weight or so loaded as to cause damage to structures or the roadway or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall

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be limited as directed by the Engineer to prevent damage to any portion of the pavement structure. No loads will be permitted on a concrete pavement, base or structure before the completion of the curing period. In no case shall legal load limits be exceeded unless permitted by the Department in writing. The contractor shall be responsible for all damage done by any of his equipment.

### **105.14 Maintenance During Construction**

a. The Contractor shall maintain the work during construction and until the project is accepted. This maintenance shall be performed as required with adequate equipment and forces so the roadway and structures are kept in satisfactory condition at all times.

b. No direct payment will be made for maintenance during construction of the Contractor's work but such maintenance will be considered as a subsidiary obligation of the Contractor covered under the various pay items of the contract, except for such maintenance of traffic work for which measurement and direct payment is specifically provided in the contract documents and except as provided in paragraph c. below.

c. The patching and repair of damage to pavements opened to traffic caused by traffic shall be done by the Contractors and will be paid for as provided in Specification 638 for roadway maintenance. However, roadway maintenance and repairs required because of construction deficiencies, or because of damages caused by the Contractor's operations or equipment, shall be undertaken at the Contractor's expense.

d. If the Contractor, at any time, fails to maintain the work in an acceptable manner, the Engineer will immediately notify the Contractor in writing of such noncompliance. If the Contractor fails to remedy unsatisfactory maintenance within reasonable time after receipt of such written notice, the Engineer may immediately proceed to maintain the project and

## **GENERAL PROVISIONS**

the entire cost of this maintenance will be deducted from monies due or to become due the Contractor on the contract.

**105.15 Advertising Signs** - The placing of advertising signs of any kind within the project right-of-way will not be permitted at any time, except as specifically authorized by the Director.

### **105.16 Acceptance**

a. Partial Acceptance - If at any time during the prosecution of the project the Contractor completes a unit or portion of the project, such as a structure, an interchange, or a section of road or pavement, he may request the Engineer to make final inspection of that unit. If the Engineer finds upon inspection that the unit has been completed in compliance with the contract he will accept that unit as being completed and the Contractor may be relieved of further responsibility for that unit. Such partial acceptance shall in no way void or alter any of the terms of the contract.

b. Final Acceptance - Upon due notice from the Contractor of presumptive completion of the entire project, the Engineer will make an inspection within ten (10) calendar days from notice.

(1) If all construction provided for and contemplated by the contract is found completed to his satisfaction, that inspection shall constitute the final inspection and the Engineer will make the final acceptance and notify the Contractor in writing of this acceptance.

(2) If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with and execute such instructions. Upon correction of the work, another

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inspection will be made which shall constitute the final inspection provided the work has been satisfactorily completed. In such event, the Engineer will make the final acceptance and notify the Contractor in writing of this acceptance.

### **105.17 Claims by Contractor**

a. When the Contractor deems that extra compensation is due him for work or materials not clearly covered in the contract or not ordered by the Engineer as extra work, as defined herein, the Contractor shall notify the Engineer in writing of his intention to make claim for such extra compensation within one working day after he begins the work on which he bases the claim. If such notification is not given, and the Engineer is not afforded proper facilities by the Contractor for keeping strict account of actual cost as required, then the Contractor hereby agrees to waive any claim for such extra compensation. Such notice by the Contractor, and the fact that the Engineer has kept account of the cost as aforesaid, shall not in any way be construed as proving or substantiating the validity of the claim.

b. If the claim, after consideration by the Engineer, is found to be just, it will be paid as extra work as provided in Article 104.06.

c. If the claim is disapproved by the Construction Area, the Contractor may appeal in writing to the Director for reconsideration. Such appeal must be filed with the Authority within 30 calendar days of receipt by the Contractor of the notification of the disapproval of the claim, otherwise the claim will be considered as settled. Should the Director rule against the Contractor on the appeal, the Contractor may request arbitration as provided in Article 109-08.

d. Nothing in this subsection shall be construed as establishing any claim contrary to the terms of Article 104.02.

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### **SECTION 106 CONTROL OF MATERIALS**

**106.01 Source of Supply and Quality Requirements** - The materials used in the work shall meet all quality requirements of the contract. Unless otherwise provided, all materials used in the work shall be furnished by the Contractor from sources selected by the Contractor. Materials will be tested and approved when delivered to the project or in their final position in the work as provided by the individual specifications. At the option of the Engineer, sources of materials may be given preliminary approval before delivery is started. However, when previously approved material sources do not produce materials meeting the specified requirements at the project, or if the product from any source proves unacceptable at any time, the Contractor shall change his operations and/or other source in order to produce and provide acceptable materials.

#### **106.02 Local Material Sources**

a. Designated Sources

(1) Specific sources of local materials may be designated on the plans and described in the contract documents. The quality of material in such deposits will be acceptable but the Contractor shall determine for himself the amount of equipment and work required to produce a material meeting the specifications. It shall be understood that it is not feasible to ascertain from samples the limits for an entire deposit, and that variations shall be considered as usual and are to be expected. The Engineer may order procurement of material from any portion of a deposit and may reject portions of the deposit as unacceptable.

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(2) The Authority will acquire and make available to the Contractor the right to take materials from the specific sources designated on the plans and described in the contract documents, together with the right to use such property as may be specified, for plant site, stockpiles and hauling roads.

(3) Unless otherwise provided in the contract, no direct payment will be made for development, preparation, erosion control, hauling and restoration of material sources or related work areas and sites.

b. Contractor Sources - When no materials sources are designated in the contract documents, or if the Contractor desires to use materials from sources other than those designated, the Contractor shall be responsible for acquiring the necessary rights to take materials from the sources selected, for determining that the materials meet the specified requirements, and he shall bear all expenses for the exploration, development, erosion control and restoration of such sources, and for all costs of hauling the materials.

c. Site Development - Pits and quarries shall be so excavated that water will not collect and stand therein. Sites from which material has been removed shall, upon completion of the work, be left in a neat and presentable condition. Where practicable borrow pits, gravel pits, and quarry sites shall be located so that they will not be visible from the highway.

### **106.03 Inspection of Materials**

a. All materials are subject to inspection, sampling, testing, retesting and rejection by the Authority as provided in the specifications and prior to acceptance of the work.

b. Any work in which untested and unaccepted materials are used without the approval of the Engineer will be performed at the Contractor's risk. Material found to be

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unacceptable will not be paid for and, if directed by the Engineer, shall be removed at the Contractor's expense.

c. Unless otherwise indicated, when a reference is made in the contract to a specification, standard, or test method adopted by AASHTO, ASTM, Federal or other recognized national association or entity, the reference shall mean the specification, standard, or test method (including interim or tentative issues) which is in effect on the date of advertisement for bids.

d. Unless otherwise indicated, the sampling of materials for testing will be performed by Authority personnel or by other personnel designated by the Authority. Where sampling by the Contractor is specified, the samples shall be taken using approved Contractor furnished sampling devices, under the supervision of the Engineer, and at such times or intervals as directed.

e. When materials are tested by the Authority, copies of the test reports will be furnished to the Contractor. Tests may or may not be performed at the work site and the Contractor shall not rely on the results of the Authority testing being available for process control.

**106.04 Plant Inspection** - The Engineer may undertake the inspection of materials at the production plant. In the event plant inspection is undertaken the following conditions shall be met:

a. The Engineer shall have the cooperation and assistance of the Contractor and the producer with whom he has contracted for materials.

b. The Engineer shall have full entry at all times to such parts of the plant as may concern the manufacture or production of the materials being furnished.

c. If required in the contract documents, the Contractor shall arrange for an approved building provided with the

## **GENERAL PROVISIONS**

equipment necessary to perform the required tests, for the use of the inspector. Such building to be located conveniently near the plant.

d. Adequate safety measures shall be provided and maintained.

### **106.05 Contractor's Quality Control**

a. The Contractor is responsible for the quality of all materials and workmanship furnished in the construction of the project. In order to insure that all such materials and workmanship meet the contract requirements, the Contractor shall provide his own quality control system and procedures including all personnel, equipment, supplies and facilities necessary to obtain samples, perform tests, evaluate test results and adequately control his work.

b. The Contractor shall perform his own process control sampling, testing and inspection during all phases of the work at a rate sufficient to assure that the work conforms to the contract requirements. The Contractor shall insure that all of the testing equipment to be used is properly calibrated and will meet the specifications applicable for the specified test procedures.

c. The Contractor's quality control system shall be a subsidiary obligation of the Contractor under the contract and no direct payment will be made for this work.

### **106.06 Certification of Compliance**

a. When a certification of a material or assembly is required by the contract, each lot of such materials or assemblies delivered to the work shall be accompanied by Certificate of Compliance in which the lot is clearly identified.

## **GENERAL PROVISIONS**

b. Commercially manufactured products shall be accompanied by certificates initiated and signed by the manufacturer and, when required, supported by tests performed by the manufacturer. Copies of such test results shall be furnished the Engineer.

c. Materials or assemblies used on the basis of Certificates of Compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not. Removal of such rejected materials will be at the Contractor's expense.

d. The Contractor shall submit the following certificate, as described in section 106.06b, attesting to the quality of the material provided or will cause such a certificate to be supplied by his subcontractors or suppliers. The certificate shall include as a minimum the following:

## **CERTIFICATE OF COMPLIANCE**

WE HEREBY CERTIFY that (description of material)

Furnished to: (Name of Contractor or Sub-contractor)

For use in: (Project name)

With Federal-aid Number: and PRHTA number:

In the quantity of (Quantity represented by this certificate)

Conforms to (List ASTM, AASHTO or other applicable specifications)

Produced by: (Name of manufacturer) and manufactured at:

(Location)

Identified by (Label, seal or batch number)

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and shipped via (Consignment or waybill)

meets the requirements of the project plans, specifications and special provisions of the Puerto Rico Highway and Transportation Authority in all respects, processing, product testing, inspection control.

Exception to the material requirements are as follows: (list all aspects in which the product does not comply with the contractual requirements. Attachment of manufacturer brochure is not acceptable and exceptions are to be listed independently in the certificate and affidavit).

All records and documents pertinent to this certificate and not submitted herewith will be maintained available at (provide address at which records will be maintained) by the undersigned for a period of not less than five years from (expected completion date of the project).

Affidavit No.:

Notary:

Notary address and telephone number:

Signed by:

Title:

The affidavit shall be prepared in the form prescribe by State law. The Notary shall provide a certification of good standing by the County Clerk or other appropriate licensing official.

This document must be signed by a person having the legal authority for binding the Contractor, Sub-contractor or Supplier and it is mandatory that the signature be notarized.

The document shall be submitted in triplicate prior to or at the time of delivery.

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The Authority may sample and test materials covered by such certification at its discretion to ascertain the validity of certificates.

### **106.07 Storage of Materials**

- a. Materials shall be so stored as to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected at any time prior to or during their incorporation in the work. Stored materials shall be located so as to facilitate their prompt inspection.
- b. When authorized by the Engineer, portions of the project right-of-way may be used for storage purposes and for the placing of the Contractor's plant and equipment provided that they are located so as to not constitute a hazard to traffic. Any additional space required therefor must be provided by the Contractor at his expense.
- c. Private property may be used for storage purpose with written permission of the owner or lessee, and, if requested by the Engineer, copies of such written permission shall be furnished him.
- d. All temporary storage areas and plant sites shall be restored to their original condition by the Contractor, at his expense in a manner acceptable to the Engineer.

**106.08 Handling Materials** - All materials shall be handled in such manner as to preserve their quality and fitness for the work. Aggregates shall be transported from the storage site to the work in tight vehicles so constructed as to prevent loss or segregation of materials after loading and measuring in order that there may be no inconsistencies in the quantities of materials intended for incorporation in the work as loaded, and the quantities as actually received at the place of operations.

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### **106.09 Materials Furnished by the Authority**

- a. The Contractor shall furnish all materials required to complete the work, except those specified to be furnished by the Authority.
- b. Material furnished by the Authority will be delivered or made available to the Contractor at the points specified in the contract documents.
- c. The cost of handling and placing all materials after they are delivered to the Contractor shall be considered as included in the contract price for the item in connection with which they are used, unless otherwise provided in the contract documents.
- d. The Contractor will be held responsible for all material delivered to him, and deductions will be made from any monies due him to make good any shortages and deficiencies, from any cause whatsoever, and for any damage which may occur after such delivery, and for any demurrage charges.

## **SECTION 107 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC**

**107.01 Laws to be Observed** - It is the Contractor's responsibility to be fully informed of and comply with all Federal, Commonwealth and municipal laws, ordinances, safety codes and regulations, and all such orders or decrees as exist at present or may be enacted later by bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. The Contractor shall at all times observe and comply with all such laws, ordinances, safety codes, regulations, orders and decrees; and shall protect and indemnify the Commonwealth and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself, his employees, his subcontractors, his suppliers, his agents, or the employees of any of them.

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### **107.02 Permits, Licenses and Taxes**

a. The Contractor shall procure all required permits and licenses and pay all fees, taxes, royalties and charges and give all notices necessary and incidental to the due and lawful prosecution of work

b. Municipal Taxes - The Contractor shall pay all excise taxes imposed by the municipalities on construction projects no later than at the time of the submittal of the first certification of partial payment as per article 109.06. Upon receipt of a certified invoice or other acceptable evidence of payment by the Contractor, the Authority will reimburse the Contractor as provided below:

(1) Form of payment – Payment for the reimbursement of municipal excise taxes paid by the Contractor will be made by an extra work order prepared for this purpose. No payment will be made for mark-up, administrative or incidental expensed, profit, surcharges or any similar charge.

(2) Withholding of payments to the Contractor - If at the time of the first certification for partial payment is submitted, the Contractor has not paid the excise taxes, the Authority will retain any monies due or that may become due to the Contractor up to the full amount of the taxes. When the Contractor submits the evidence of payment as per paragraph (1) above, the Authority will return all retained monies.

(3) Non-liability of the Authority – The Authority shall not be responsible for claims arising out of any arrangements or agreements between the Contractor and municipalities. The Contractor shall hold the Authority harmless and non-labile for any claims arising out of the application of this article.

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**107.03            Patented Devices, Materials, and Processes** - If the Contractor employs any design, device, material, or process covered by letters of patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the Surety shall indemnify and save harmless the Authority, any affected third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the Authority for any costs, expenses, and damages which it may be obliged to pay by reason of any infringement, at any time during the prosecution or after the completion of work.

### **107.04            Restoration of Surfaces Opened by Permit**

- a.        An individual, firm, corporation or other legal entity, or a public agency, may be issued a permit by the proper authorities for opening the highway, road or street for the purpose of constructing or reconstructing any utility service. The Contractor shall permit the holder of such a valid permit to open the highway, road or street for such purpose.
- b.        When ordered by the Engineer, the Contractor shall make, in an acceptable manner, all necessary repairs due to such openings and such necessary work shall be paid for as provided in these specifications, or as otherwise provided in the contract documents, and shall be subject to the same conditions as original work performed.

### **107.05            Federal Funds Participation**

- a.        When the United States government participates in the cost of the work covered by the contract, the work shall be under the supervision of the Authority but subject to the inspection of the appropriate Federal agency and in accordance with the applicable Federal statutes and rules and regulations made pursuant thereto. Such inspection shall in no sense make the Federal government a party to this contract and will in no way interfere with the rights of either party hereunder.

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- b. The Contractor shall extend the same courtesies to the representatives of the Federal government as are required to be extended to representatives of the Commonwealth.

### **107.06 Sanitary, Health and Safety Provisions**

- a. The Contractor shall provide and maintain in a neat, sanitary condition such accommodations as necessary for the use of his employees and in compliance with the requirements of the Commonwealth Departments of Health and Labor and other bodies having jurisdiction thereover.
- b. The Contractor shall not require any worker to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his health or safety. He shall comply with all Federal, Commonwealth and local laws, rules and regulations concerning construction safety and health standards and shall admit without delay any inspector from such health and safety agencies upon presentation of proper credentials.

### **107.07 Labor Relations and Wages**

- a. The Contractor shall comply with all the applicable Federal and Commonwealth laws, rules and regulations concerning fair labor practices including minimum wages, work hours, equal employment opportunities, non discrimination, civil rights, employment of minors, and other labor relation matters.
- b. The minimum wage rates to be paid shall be according to the regulations of the Minimum Wage Board of the Puerto Rico Department of Labor as indicated in the latest issue of its mandatory decree or the Federal minimum wage, whichever is higher at any time during the execution of the project. However, on Federal-aid projects, the regulations and wage rates published by the Wage and Hours Division of the U.S. Department of Labor shall apply.

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c. The Contractor shall pay weekly, in lawful money of the United States of America, the entire amount of wages, less legally authorized or mandated deductions, earned by each of the laborers and employees engaged in the work.

(1) The Contractor shall make available to the Engineer for inspection the project payrolls and shall submit copies of such payrolls to the Engineer when required.

(2) Any irregularities noted will be brought to the attention of the Contractor by the Engineer for appropriate corrective action and payment of any pending wages. Should the Contractor fail to take the necessary action, he will be subject to such civil and criminal proceedings as provided by law and regulations.

(3) Payment of wages to laborers and employees of the Contractor for their work shall have preference over the payment of other debts of the Contractor, except as otherwise established by law.

**107.08 Public Convenience and Safety** - The Contractor shall at all times conduct the work to assure the safety and convenience of the general public and the residents along the highway, and to assure the protection of persons and property. He shall perform the work so as to cause the least possible obstruction to traffic as specified under Article 104.07. The Contractor shall comply with the safety provisions of all laws, rules, codes and regulations applicable to the class of work being performed.

### **107.09 Environmental Protection**

a. The Contractor shall comply with all Federal, Commonwealth and local laws and regulations controlling pollution of the environment. He shall take necessary precautions to prevent pollution of streams, lakes, ponds, and

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reservoirs with fuels, oil, bitumens, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

b. Unless otherwise approved in writing by the Engineer, construction operations in rivers, streams, lakes and other bodies of water shall be restricted to those areas where channel changes are shown on the plans and to those areas which must be entered for the construction of temporary or permanent structures. Rivers, streams, lakes and reservoirs shall be promptly cleared of all falsework, piling, debris, or other obstructions placed therein or caused by the construction operations.

c. Frequent fording of live streams with construction equipment will not be permitted. Temporary bridges or other structures shall be used wherever an appreciable number of stream crossings are necessary. Unless otherwise approved in writing by the Engineer, mechanized equipment shall not be operated in live streams except as may be required to construct channel changes and temporary or permanent structures.

d. The Contractor shall comply with all the requirements on soil erosion and water pollution control included in Specification 210 and other standard specifications, the plans and other contract documents.

e. If the Contractor should encounter or expose during construction operations any abnormal condition which may indicate the presence of a hazardous and/or toxic waste, work in this area shall be immediately discontinued and the Engineer shall be notified. Abnormal conditions shall include but shall not be limited to the following: presence of barrels, discolored earth, metal or wood; obnoxious or unusual odors; visible fumes; excessively hot earth; smoke; or any other condition which appears to be a possible indication of hazardous and/or toxic waste. The conditions shall be treated with extraordinary caution and the Contractor's operations

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shall not resume until so directed by the Engineer. The removal and disposition of the hazardous and/or toxic waste shall be made by qualified personnel and in accordance with the requirements and regulations of the Environmental Quality Board. When the removal and disposal of hazardous and/or toxic waste is performed by the Contractor at the request of the Authority, such work will be considered as extra work under the provisions of Articles 104.06 and 109.04.

**107.10 Construction Over or Adjacent to Navigable Waters** - All work over, on or adjacent to navigable waters shall be so conducted that free navigation of the waterways will not be interfered with and that the existing navigable depths and clearances will not be impaired except as allowed by permit issued by the U.S. Coast Guard and/or the U.S. Army Corps of Engineers, as applicable.

### **107.11 Traffic Protection Devices -**

The Contractor shall provide, erect and maintain all necessary advance warning signs, barricades, suitable and sufficient lights, danger signals, signs, and other traffic control devices; shall provide a sufficient number of watchmen and flagpersons, and shall take all necessary precautions for the protection of the work and the safety of the public in accordance with the requirements of Standard Specification 638, the plans and other contract documents.

### **107.12 Use of Explosives**

a. When the use of explosives is necessary for the prosecution of the work, the Contractor shall comply with all the laws and regulations concerning the storage, transporting, handling and detonating of explosives. The Contractor shall exercise the utmost care with the explosives so as not to endanger life and property and he shall be responsible for any and all damages that may result from his use of explosives.

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- b. Prior to initiating the use of explosives, the Contractor shall submit to the Authority evidence that his comprehensive general liability insurance required under Article 107.16e provides coverage for the use of explosives and blasting.
- c. Blasting operations shall be conducted under the most careful and experienced supervision. The Contractor shall keep the Engineer informed as to his drilling and blasting operations.
- d. The Contractor shall furnish and erect special signs to warn the public of his blasting operations. Such signs shall be placed at appropriate points within the project limits, shall be maintained so as to be clearly evident to the public during all critical periods of the blasting operations and, if blasting is by means of electric detonators, shall include a warning statement to have radio transmitters turned off.
- e. The Contractor shall notify each property owner and public utility company having structures in the proximity to the site of the work of his intention to use explosives. Such notice shall be given sufficiently in advance to enable the companies to take such steps as they may deem necessary to protect their property from injury.

### **107.13 Protection and Restoration of Property**

- a. The Contractor shall be responsible for the preservation of all public and private property, and shall protect carefully from disturbance or damages all land monuments and property marks until the Engineer has witnessed or otherwise referenced their location, and shall not move them until directed.
- b. When the Contractor's excavating operations encounter remains of prehistoric people's dwelling sites or artifacts of historical, paleontological or archeological significance, operations in the vicinity of such findings shall be temporarily discontinued and the Engineer notified. The Engineer will contact the proper authorities to determine the disposition

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thereof. When directed by the Engineer, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and shall remove them for delivery to the custody of the proper authorities. Such specialized excavation will be considered and paid for as extra work unless the Authority elects to undertake such recovery work by other means.

c. The Contractor shall be responsible for all damages or injury to property of any character during the prosecution of the work resulting from any act, omission, neglect or misconduct in the Contractor's manner or method of executing the work, or at any time due to defective work or materials, and the Contractor's responsibility will not be released until the project has been completed and accepted.

d. When or where any direct or indirect damage or injury is done to public or private property by or on account of an act, omission, neglect or misconduct in the execution of the work, or in consequence of the nonexecution thereof on the part of the Contractor, such property shall be restored at the Contractor's expense to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring the same, or he shall make good such damage or injury in an acceptable manner.

e. The Contractor shall provide in his operations all necessary soil erosion and water pollution control measures, and shall exercise due care in their implementation, to avoid causing erosion and drainage problems in all areas outside the project construction limit.

### **107.14 Forest Protection**

a. In carrying out work within or adjacent to Commonwealth or National Forests, the Contractor shall comply with all regulations of the Commonwealth Fire Service, P.R. Department of Agriculture, U.S. Forest Service or other authority having jurisdiction, governing the protection of

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forests and the carrying out of work within forests, and shall observe all sanitary laws and regulations with respect to the performance of work in forest areas. The Contractor shall keep the areas in an orderly condition, dispose of all refuse, obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks, and other structures in accordance with the requirements of the agency having jurisdiction of the forest.

b. The Contractor shall take all reasonable precautions to prevent and suppress forest fires and shall require his employees and subcontractors, both independently and at the request of forest officials, to do all reasonably within their power to prevent and suppress and to assist in the prevention and suppressing forest fires and to make every possible effort to notify a forest official at the earliest possible moment of the location and extent of any fire seen by them.

**107.15 Responsibility for Damage Claims** - The Contractor shall indemnify and save harmless the Authority and all its officers, employees and agents from and against all losses, liabilities, claims, or demands whatsoever (including, without limitation, costs and expenses in connection therewith), arising out of any personal injury, including death resulting therefrom, or out of any damage to or loss or destruction of property, in any manner based upon, occasioned by, or attributable or related to the performance whether by the Contractor, any sub-contractors, any employee of the Contractor or of any sub-contractor, or any other person, of the work or any part of the same, except where such injury to or death of persons or damage to or loss or destruction of property is due solely to the negligence of the Authority, its officers, employees or agents.

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### **107.16 Liability Insurance**

a. The Contractor shall not commence work under the contract until he has obtained, at his expense, the various insurances specified in this article and has submitted to the Authority certificates of insurance evidencing his compliance with these insurance requirements.

b. The liability insurances required herein are in addition to the bonds and insurances required under Article 103-05 of these General Provisions. These insurances shall be obtained from surety companies complying with the requirements of paragraph 103.05d and subject to approval by the Authority. The Authority reserves the right to disapprove any surety company when, in its judgment, the surety has failed to pay or settle or accept coverage in previous cases involving the Authority.

c. The requirements of paragraphs c., e., f., and g., of Article 103.05 are applicable to these additional insurances.

d. Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve the Contractor of liability in excess of such coverage.

e. The following insurances and coverages shall be provided as a minimum:

(1) Comprehensive General Liability Insurance providing:

(a) Bodily injury limits of not less than \$200,000 for each person and \$500,000 per accident, and property damage limits at all times not less than \$100,000 per accident and \$200,000 aggregate.

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(b) Contractor's Protective Liability Insurance, covering the liability for damages imposed by law upon the Contractor with respect to all work under the contract performed for the Contractor by subcontractors.

(c) Contractual Liability Insurance to cover the liability assumed by the Contractor under the Indemnity Agreement specified in Article 107.15. The Indemnity Agreement is to be quoted verbatim in an endorsement and made a part of the Comprehensive General Liability policy, and is to be quoted also in the certificate evidencing such insurance.

(d) The insurance shall provide coverage for underground operations, excavation work, the use of explosives and blasting, unless specifically exempt by the Authority, because of the nature of the work, of any or all of these coverages. However, should the need for such work and coverage arise during the performance of the work the Contractor shall submit to the Authority an endorsement to the Comprehensive General Liability Policy, without any additional cost to the Authority, to cover all possible suits, actions or claims of any character brought on account of any injuries or damages to person, persons or property through the acts of the Contractor, his agents or employees, or by consequence of negligence by these parties.

(2) Owner's Protective Liability Insurance covering the Authority's legal liability for bodily injury and property damage caused by an occurrence and arising out of operations performed for it by the Contractor.

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Coverage shall be written in the name of the PUERTO RICO HIGHWAY AND TRANSPORTATION AUTHORITY in amounts as specified in paragraph (1)(a) above for the Comprehensive General Liability Insurance.

(3) Completed Operations Insurance extending the liability coverages for 12 months after the project is substantially completed. Evidence of such insurance shall be submitted to the Authority prior to final acceptance of the project.

(4) Automobile Comprehensive Liability Insurance covering all of the Contractor's vehicles with bodily injury limits not less than \$100,000 for each person and \$300,000 for each accident, and property damage limits at all times of not less than \$100,000 per accident. The policy shall be endorsed to include non-ownership and, where applicable, hired car coverage.

### **107.17 Opening of Sections of Project to Traffic**

a. At the option of the Engineer or as specified in the construction schedule, certain sections of the project may be opened to traffic. Such opening shall not constitute acceptance of the work or any part thereof, or a waiver of any provisions of the contract.

b. If required by the Authority, the Contractor shall maintain the sections opened to traffic and he will be compensated therefor. Any damages to the opened section attributable to traffic shall be repaired as ordered by the Authority. Compensation for such maintenance and damage repair shall be as provided in Article 109.04. This provision is also applicable to any existing roadways within the project limits which are to remain open to traffic during the construction period.

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- c. The removal of any slides from the roadways opened to traffic shall be done by the Contractor on a basis agreed upon with the Engineer prior to the removal of such slides.
- d. The Contractor's responsibility for the care and the repair of damages to the roadway sections opened to traffic, other than as indicated in paragraphs b. and c. above, shall be as provided in Article 107.18.
- e. If the Contractor is dilatory in completing shoulders, drainage structures, or other features of the work, the Engineer may so notify him in writing and establish therein a reasonable period of time in which the work should be completed. If the Contractor is dilatory, or fails to make a reasonable effort toward completion in this period of time, the Engineer may then order all or a portion of the project opened to traffic. On such sections which are so ordered to be opened, the Contractor shall conduct the remainder of his construction operations so as to cause the least obstruction to traffic and shall not receive any added compensation due to the added cost of the work by reason of opening such section to traffic.

### **107.18 Contractor's Responsibility for Work**

- a. Until the final written acceptance of the work by the Authority, the work shall be under the charge and care of the Contractor, and he shall take every necessary precaution to protect it from injury or damage to any part thereof by the action of the elements or from any other cause whether arising from the execution or non-execution of the work.
- b. The Contractor shall rebuild, repair, restore and make good any injuries or damages to any portion of the work occasioned by any of the causes indicated in paragraph a. above, before its completion and acceptance, and shall bear the expense thereof, except damages to the work due to unforeseeable causes beyond the control of and without fault or negligence of the Contractor, including but not restricted to acts

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of God, such as earthquake, hurricane, tidal wave, major flooding or other cataclysmic phenomenon of nature; acts of the public enemy or of the government; traffic accidents; or vandalism.

c. In case of suspension of work from any cause whatsoever, the Contractor shall be responsible for the work under the contract and shall take such precautions as may be necessary to prevent damage to the project, provide suitable drainage for the roadway and erect necessary temporary structures signs or other facilities. During such period of suspension of work, the Contractor shall properly and continuously maintain in acceptable growing conditions all living material in newly established plantings, seedings, and soddings furnished under his contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

d. When work is suspended by the Contractor without authorization from the Engineer, or is suspended by the Engineer due to the fault of the Contractor, the costs of providing the protective measures specified in paragraph “c” above during the period of suspension shall be borne by the Contractor.

### **107.19 Contractors Responsibility for Utility Property and Services**

a. Prior to commencing work, the Contractor shall make arrangements to protect the properties of all public and private utilities and other property within and adjacent to the work area from damage by his construction operations.

b. The Contractor shall cooperate with the utility owners in the removal and rearrangement of any underground or overhead utility lines or facilities to minimize interruption to service and duplication of work by the utility owners.

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c. In the event of interruption to water or other utility services as a result of accidental breakage, or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authorities and shall cooperate with them in the restoration of service as promptly as possible.

d. Fire hydrants shall be kept accessible to the Fire Department at all times and no work shall be undertaken near fire hydrants until provisions for continued service have been made.

e. The Contractor shall be responsible for the repair costs of any damage to utility facilities caused by his equipment or operations, except for underground facilities whose existence or approximate location was previously unknown.

**107.20      Furnishing of Right of Way** - The Authority will be responsible for the obtaining of all necessary rights-of-way in advance of construction. Any exceptions will be indicated in the contract documents.

**107.21      Personal Liability of Public Officials** - In carrying out any of the provisions of this contract or exercising any power or authority granted to them by or within the scope of this contract, there shall be no liability, upon the Secretary, the Director, or their authorized representatives personally or as officials of the Commonwealth, it being understood that in such matter, they act as the agents and representatives of the Commonwealth.

**107.22      No Waiver of Legal Rights**

a. The Authority shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefore, from showing the true amount and character of the work performed and materials furnished by the Contractor, nor

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from showing that any such measurement, estimate or certificate is untrue or is incorrectly made, nor that the work or materials do not in fact conform to the contract.

b. The Authority shall not be precluded or estopped, notwithstanding any such measurement, estimate or certificate and payment in accordance therewith, from recovering from the Contractor or his sureties, or both, such damage as it may sustain by reason of his failure to comply with the terms of the contract. Neither the acceptance by the Authority or any representative of the Authority nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the Authority, shall operate as a waiver of any portion of the contract or of any power herein reserved or of any right to damages.

c. A waiver by the Authority of any breach of the contract shall not be held to be a waiver of any other or subsequent breach.

d. The Contractor, without prejudice to the terms of the contract, shall be liable to the Authority for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Authority's rights under any warranty or guaranty.

## **SECTION 108 PROSECUTION OF WORK**

**108.01 Notice to Proceed** - After the contract has been executed, the Contractor will be formally notified to proceed with the work or services provided in the contract. The Notice to Proceed will stipulate the date on which it is expected the Contractor will begin construction and from which date contract time will be charged.

### **108.02 Progress Schedule**

a. The Contractor shall submit for the approval of the Regional Office Supervisor, prior to the execution of the contract, a construction progress schedule in a chart form

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satisfactorily to the Supervisor. The progress schedule shall show the proposed dates of commencement and completion of the principal items of work.. This schedule will be reviewed by the Regional Office Supervisor as he may require to insure the completion of the work within the specified contract time.

b. The Contractor's progress schedule will be used to check on the progress of the work. It shall be updated monthly during the life of the contract subject to the acceptance of the Regional Office Supervisor. The Contractor shall maintain the progress schedule and charts up to date. Failure to do so will be considered justification to withhold progress payments.

### **108.03 Subletting of Contract**

a. The Contractor shall not sublet, sell, transfer, assign or otherwise dispose of the contract or contracts, or any portion thereof, or of his right, title, or interest therein, without written consent of the Engineer. If such consent is given, the Contractor will be permitted to sublet a portion of the work, but shall perform with his own organization work amounting to not less than 50 percent of the total contract cost. However, any items designated in the contract as "specialty items" may be performed by subcontract and the cost of any such specialty items performed by subcontract may be deducted from the total cost before computing the amount of work required to be performed by the Contractor with his own organization. No sub-contracts, or transfer of contract, shall in any case release the Contractor of his liability under the contract and bonds.

b. The Contractor shall, as soon as practicable after the award of the contract, furnish to the Authority, for approval, a list of the contract items that he proposes to subcontract and the names of the proposed subcontractors. The Authority may require the submittal of such information on each proposed sub-contractor as it considers necessary to evaluate their

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qualifications to perform the work. The Authority will advise the Contractor not later than fifteen (15) days after the receipt of all the required information on the approval or disapproval of the proposed sub-contractors. The Contractor shall not contract with any sub-contractor or any person or organization for the performance of any of the work who has not been approved by the Authority.

c. The Contractor may submit an acceptable substitute for any proposed sub-contractor, or any person or organization in the list, who has been disapproved by the Authority. Any increase in the contract cost which may arise from such substitution will be at the Contractor's expense.

d. An approved subcontractor shall not sublet, sell, transfer, assign or otherwise dispose of his subcontract, or any portion thereof, to another subcontractor without the written approval of the Engineer. Similarly, a Contractor shall not substitute an approved subcontractor by another without the previous approval of the Engineer.

e. All work performed by a subcontractor for the Contractor shall be pursuant to an appropriate agreement between the subcontractor and the Contractor which shall contain provisions that require the sub-contractor to comply with all the provisions of the contract documents applicable to the work to be performed by the sub-contractor, including required contract provision on Federal aid projects.

f. The Contractor shall submit copy of each proposed sub-contract to the Engineer.

### **108.04 Prosecution and Progress**

a. Upon written permission by the Director, the Contractor may assemble materials and equipment and start preliminary work as soon as he is notified of the award, but no responsibility for acceptance of the work performed shall be

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assumed by the Authority until and unless the contract has been executed and the order to proceed issued.

b. The Contractor shall start work on the part of the project designated in the contract documents or set forth in the approved progress schedule and the work shall be conducted in such a manner and with sufficient materials, equipment and labor as considered necessary to insure its completion in accordance with the plans, specifications and contract, within the time set forth in the contract and proposal.

c. The rate of progress shall be compared with approved progress schedule as the work progresses. If the Contractor falls significantly behind the approved schedule, he shall submit a revised schedule for completion of the work within the contract time and modify his operations to provide such additional materials, equipment and labor as necessary to meet the revised schedule.

d. Should the prosecution of the work be discontinued for any reason, the Contractor shall notify the Engineer at least 24 hours in advance of resuming operations.

### **108.05 Limitations on Operations**

a. Limitations on the Contractor's operations shall be as specified for the various items of work. He shall conduct the work at all times in such a manner and in such sequence as will assure compliance with the maintenance of traffic provisions of Article 104.07.

b. The Contractor shall not open up work to the prejudice or detriment of work already started. The Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional section if the opening of such section is essential to public safety and convenience.

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### **108.06 Character of Workers, Methods and Equipment**

- a. The Contractor shall at all time employ sufficient labor and equipment for prosecuting the several classes of work to full completion in the manner and at the time required in the specifications.
- b. All workers employed in the work shall have sufficient skill and experience to properly perform the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in the performance of such work and in the operation of the equipment and tools to perform it properly and satisfactorily.
- c. Any person employed by the Contractor or by a sub-contractor who, as determined by the Engineer, does not perform his work in a proper and skillful manner, or is disrespectful, intemperate, disorderly or otherwise objectionable shall, at the written request of the Engineer, be removed forthwith by the Contractor or Sub-contractor employing such employee, and such person shall not be employed again on any portion of the work without the written consent of the Engineer.
- d. Should the Contractor fail to remove such person or persons as required in paragraph c. above, or fail to furnish suitable and sufficient personnel for the proper prosecution of the work, the Engineer may withhold payment of estimates which are or may become due, or may suspend the work by written notice until such orders are complied with.
- e. All equipment which is proposed to be used on the work, shall be of sufficient size and in such mechanical condition as to meet the requirements of the work and produce a satisfactory quality of work. Equipment used on any portion of the project shall be such that no injury to the roadway, adjacent property, or other highways will result from its use.

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f. When the methods and equipment to be used by the Contractor are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the contract. The Engineer may order the removal and require replacement of any equipment which does not produce satisfactory results.

g. When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Engineer. If the Contractor desires to use a method or type of equipment other than specified in the contract, he may request authority from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the Engineer determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove the deficient work and replace it with work of specified quality, or take such other corrective action as the Engineer may direct. No change will be made in basis of payment for the construction items involved nor in contract time as a result of authorizing a change in methods or equipment under these provisions.

h. Should the Contractor fail to furnish suitable and sufficient equipment for the proper prosecution of the work the Engineer may withhold payment of estimates which are or may become due or may suspend the work by written notice until his orders are complied with.

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### **108.07 Suspension of Work**

a. The Engineer reserves the right to suspend all or any portion of the work for any reasons or convenience of the Authority at any time during the execution of the work. The Contractor will be notified in writing of any such suspension.

(1) If the performance of all or any portion of the work is suspended for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the Contractor deems that additional compensation and/or contract time is due the Contractor as a result of such suspension, the Contractor shall submit to the Engineer in writing a request for adjustment within seven (7) calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

(2) Upon receipt, the Engineer shall immediately consider the Contractor's request. If the Engineer agrees that the cost of and/or the time required for the performance of the contract has been increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, subcontractors at any tier, or by weather, the Engineer shall make an equitable adjustment (excluding profit) and modify the contract in writing accordingly.

(3) No contract adjustment shall be allowed unless the Contractor has submitted the request for adjustment within the time prescribed.

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(4) No contract adjustment shall be allowed under this clause for any suspension to the extent that performance would have been so suspended by any other cause or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract.

b. Suspension of work on some but not all items will be considered “partial suspension”. Suspension of work on all items will be considered “total suspension”. Work of an emergency nature ordered for the safety and convenience of public traffic and minor operations not affected by or connected with the cause of suspension may be performed during a period of total suspension, if permitted by the Engineer.

c. Upon suspension, the work shall be put in proper and satisfactory conditions, and properly protected as directed by the Engineer. In all cases of suspension, the work shall not again be resumed until permitted by written order of the Director.

d. Stand by Equipment – The Contractor will be paid rental for the authorized by the Engineer stand by equipment on site at the time of suspension of the works. The rental to be paid will be computed using an hourly rate which is 1/352 of the monthly rate listed in the Rental Blue Book published by PRIMEDIA Information Inc. of San José, California which is in effect at the time the equipment is used and adjusted as per the rate adjustment factor applicable to Puerto Rico.

### **108.08 Determination and Extension of Contract Time**

a. The contract time will be the number of days allowed for completion of the work as stated in the proposal and in the contract. Contract time shall commence on the date stipulated in the Notice to Proceed.

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b. When the contract time is a calendar day basis, every calendar day after the date of commencement will be counted until the project is substantially completed.

c. When the contract is on a working day basis, only working days will be counted. Saturdays will be counted as one-half working day. Sundays and legal holidays listed in Article 101.03 will not be counted as working days. At the request of the Contractor, the Director may authorize the Contractor to work all day Saturday, Sundays, or legal holidays, in which case they shall be counted as working days. The Engineer will furnish the Contractor a weekly statement showing the number of days charged to the contract for the preceding week and the number of days remaining for completion of the contract.

d. When the contract completion time is a fixed date, that day shall be the date on which all work on the project shall be substantially completed.

e. The determination of whether a project is substantially completed is at the discretion of the Authority. A project will normally be considered substantially completed when all the contract work, except for a few very minor details, has been completed, the required final cleaning up has been performed and the project can be fully and safely opened to traffic or used for the intended purpose.

f. The time allowed for the performance of the contract work will be extended only for the reasons stated below:

(1) Increased Contract Value – If satisfactory fulfillment of the contract requires performance of work in greater quantities than those set forth in the proposal, the contract time will be increased based on the requirements of the approved, Progress Schedule. No extensions to the contract time will be approved solely on the basis of increased contract value.

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### **(2) Authorized Suspension of Work**

(a) When the performance of the work is totally suspended for one or more calendar days by order of the Engineer and not due to any fault of the Contractor, the total number of calendar days during which the work is suspended will be added to the contract time if justified based on the requirements of the approved, Progress Schedule.

(b) In case of partial suspension of the work ordered by the Engineer and not due to any fault of the Contractor, the contract time may be extended to the extent of the effect that such suspension may bear on the duration of the contract, as determined by the Engineer based on the requirements of the approved, Progress Schedule.

(3) Change and Extra Work Orders - The effect of change orders and extra work orders on the project schedule will be determined by the Engineer based on the requirements of the approved Progress Schedule. Extensions to the contract time will be approved on such determination.

(4) Causes beyond the Control of the Contractor - In case of delays or interruptions, or damage to the work due to unforeseeable causes such as acts of God (force majeure) or the public enemy, or acts of the government, or other caused not attributable to the Contractor, the Engineer will approve an extension of contract time based on the requirements of the approved Progress Schedule.

g. Extensions in contract time will not be allowed for any of the following reasons:

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(1) Delays or interruptions caused by reasonably predictable weather conditions including rainfall, windstorms, minor floods and other natural phenomena of normal intensity for the season and for the region where the project is located.

(2) Suspensions of work ordered by the Engineer due to the fault of the Contractor.

(3) Unauthorized suspensions of work by the Contractor.

(4) A Contractor's plea that insufficient time was specified in the contract documents.

h. If the Contractor finds it impossible for reasons beyond his control to complete the work within the contract time as specified or as extended in accordance with the provisions of this Article, the Contractor may, at any time prior to the expiration of the contract time as extended, make a written request to the Engineer for an extension of time, setting forth the reasons he believes will justify the granting of the request. The Authority will evaluate and decide on such request on the basis of the provisions of paragraphs f. and g. above. The Contractor's request shall include but not be limited to:

(1) Supporting data and reasons considered justification for request.

(2) The time requested. (The number of calendar or working days, or the revision to a fixed completion date, whichever is applicable.)

### **108.09 Failure to Complete the Work on Time**

a. Should the Contractor, or the Surety in case of default, fail to complete all the work within the time specified in the contract, or as extended by written authorization by the

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Director based on the provisions of Article 108.08, there shall be deducted from any moneys due or that may become due the Contractor, the sum set forth in the following schedule for each calendar day the work remains uncompleted. This sum shall be considered and treated not as a penalty, but as fixed and agreed liquidated damages due the Authority by the Contractor by reason of inconvenience to the public, added cost of engineering and supervision, and other items which have caused an expenditure of public funds, resulting from this failure to complete the work within the time specified in the contract.

### **SCHEDULE OF LIQUIDATED DAMAGES**

<u>Original Amount of Contract</u>		<u>Daily Charge</u>
<u>From More than</u>	<u>To and Including</u>	
\$0.00	\$5,000,000.00	\$2,000.00
\$5,000,000.00	\$40,000,000.00	\$5,000.00
\$40,000,000.00	-	\$10,000.00

b. The original contract amount in the above schedule of liquidated damages refers to the total original contract amount including all the units in a multi-unit contract. Liquidated damages will be applied on multi-unit contracts on the basis of the daily charges applicable to the total original contract amount.

c. Permitting the Contractor to continue and finish the work or any part of it after time fixed for its completion or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Authority of any of its rights under the contract.

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d. The Authority may waive such portions of the liquidated damages as may accrue after the work is substantially completed.

### **108.10 Default of Contract**

a. The Contract may be considered in default and the Secretary may give notice in writing to the Contractor and his Surety of such condition, and the corrective actions required to be taken by the Contractor or his Surety, if the Contractor:

- (1) fails to begin the work within the time specified, unless otherwise authorized, or
- (2) fails to perform the work with sufficient workmen and equipment or with sufficient materials to assure the completion within the contract time, or
- (3) performs the work not in accordance with the contract requirements and/or refuses to remove and replace rejected materials or unacceptable work, or
- (4) abandons or discontinues the prosecution of the work without authorization, or
- (5) fails to resume work that has been discontinued within a reasonable time after notice to do so, or
- (6) becomes insolvent or declared bankrupt, or commits any act of insolvency or bankruptcy, or
- (7) allows any final judgment against him in connection with the contract to stand unsatisfied for such period of time as stipulated in the decree of judgment, or
- (8) makes an unauthorized assignment for the benefit of any creditor or creditors, or

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(9) fails to comply with contract provisions regarding wages, and other applicable labor provisions, or

(10) is party to a fraud, or

(11) for any cause whatsoever, fails to carry on the work in an acceptable manner.

b. If the Contractor or his Surety, within a period of 10 days after such notice, does not proceed satisfactorily in accordance therewith, then the Secretary will have full power and authority, without violating the contract, to take the prosecution of the work out of the hands of the Contractor. The Authority may then appropriate or use any or all materials and equipment on the ground or ordered for the work, as may be acceptable and suitable, and to enter into any agreement for the completion of the contract according to the terms and provisions thereof, or to use such other methods as in the opinion of the Engineer will be required for the completion of the contract in an acceptable manner.

c. All costs and charges incurred by the Authority, together with the costs of completing the work under the contract, will be deducted from any monies due or which may become due to said Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay the Authority the amount of such excess.

### **108.11 Termination of Contract**

a. The Authority may, by written order and with the approval of the Federal agency on projects involving Federal funds, terminate the contract or any portion thereof after determining that for reasons beyond the control of either the Contractor or the Authority, the Contractor is prevented from proceeding with or completing the work within the scope of the contract and that termination would be in the public interest.

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Reasons for termination may include, but need not be necessarily limited to:

- (1) Executive Orders of the President of the United States relating to prosecution of war or national defense.
- (2) National emergency which creates a serious shortage of materials.
- (3) Orders from duly constituted authorities relating to energy conservation.
- (4) Restraining orders or injunctions obtained by third-party action resulting from national or local environmental protection laws or where the issuance of such order or injunction is primarily caused by acts or omissions of persons or agencies other than the Contractor.
- (5) Unforeseen circumstances or differing site conditions that materially and substantially alter the character or scope of the work.

b. Then the Authority orders termination of a contract effective on a certain date, all completed items of work as of that date will be paid for at the contract bid price and partially completed work will be paid for as mutually agreed.

c. Acceptable materials, obtained by the Contractor for the work, that have been inspected, tested, and accepted by the Engineer and that are not incorporated in the work will be disposed of and reimbursed as provided under Article 109.05 for eliminated items or as otherwise mutually agreed.

d. After receipt of Notice of Termination from the Authority the Contractor shall submit, within 60 calendar days of the effective termination date, a claim for additional

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damages or costs not covered above or elsewhere in these specifications. Such claim may include such cost items as reasonable idle equipment time, mobilization efforts, bidding and project investigative costs, overhead expenses attributable to the project terminated, legal and accounting charges involved in the preparation of the claim, subcontractor costs not otherwise paid for, actual idle labor cost if work is stopped in advance of termination date, guaranteed payments for private land usage as part of original contract, and any other cost or damage item for which the Contractor believes reimbursement should be made. The intent of negotiating this claim would be that an equitable settlement figure be reached with the Contractor. In no event, however, will loss of anticipated profits be considered as part of any settlement.

e. The Contractor agrees to make records available to the extent necessary to determine the validity and amount of each item claimed.

f. Termination of a contract or portion thereof shall not relieve the Contractor of contractual responsibilities for the work completed, nor shall it relieve the Surety of its obligation for and concerning any just claim arising out of the work performed.

**108.12 Termination of Contractor's Responsibility** - The contract will be considered complete when all work covered by the same shall have been completely performed, all parts of said work have been approved by the Engineer, the final inspection made, the final liquidation examined and approved by the Director, and the final payment made to the Contractor. The date of final payment shall constitute the date of final completion and settlement and the Contractor will then be released from further obligation except for the warranties and guarantees required under the various contract pay items, and except as provided in Article 107.22 of these General Provisions.

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### **SECTION 109 MEASUREMENT AND PAYMENT**

#### **109.01 Measurement of Quantities**

a. The determination of quantities of work acceptably completed under the terms of the contract will be made by the Engineer and based on measurements made by him or his assistants according to the units of measure for each item as shown in the proposal and by the method indicated in the corresponding specification for said item.

b. The United States standard measure, the metric decimal system and official local units may be used for any item in accordance with the current custom and the standards of trade. When the term “ton” is used it will mean the short ton consisting of 2,000 pound avoirdupois.

c. Unless otherwise shown on the plans or indicated in the specifications or special provisions, the following methods of measurement will be used.

(1) All lengths and distances for planimetric computations will be made horizontally.

(2) Measurements of heights and depths will be made vertically.

(3) Structures will be measured according to neat lines shown on the original plans or as revised to fit field conditions.

(4) In computing volumes of excavation, embankment and borrow the average end area method will be used, but other accepted mathematical methods for volume computation may be used if so specified or approved by the Engineer.

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(5) Items measured by the linear foot or linear meter such as guardrails, pipe culverts, sewers, underdrains, etc., will be measured parallel to the foundation upon which structures are placed, or parallel to the center line when so specified.

(6) Thickness of pavements will be measured normal to the grade line.

(7) All materials that are measured or proportioned by weight shall be weighed on approved, certified and sealed scales by competent, qualified personnel at locations designated by the Engineer. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the Engineer directs, and each truck shall bear a plainly legible identification mark.

(8) Materials to be measured by volume shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable to the Engineer, provided that the body is of such shape that the actual contents may be readily and accurately determined. All loads shall be leveled when the vehicles arrive at the point of delivery.

(9) When requested by the Contractor and approved by the Engineer in writing, material specified to be paid by volume may be weighed, and such weights converted to volume measure for payment purposes. Also, materials to be paid by weight may be measured by volume, and such measurement converted to weight. Conversion factors will be determined by the Engineer and the Contractor shall agree to such factors before such method of measurement of pay quantities is used.

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d. Materials and components to be incorporated within a pay item as a part of such item, as described in the contract documents, will not be measured for separate payment.

e. When the term “lump sum” is specified as a unit of payment, the unit will be construed to include all materials, work, services, appurtenances, fittings and accessories necessary to complete the work comprised under the item as described in the contract documents.

f. When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gage, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled in cited specifications, manufacturing tolerances established by the industries involved will be accepted.

g. Scales for the weighing of highway and bridge construction materials that are required to be proportioned or measured and paid for by weight, shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales.

(1) Scales shall be accurate within 1/2 percent of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the inspector before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed 1/10 of 1 percent of the nominal rated capacity of the scale, but not less than one (1) pound. The use of spring balances will not be permitted.

(2) Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and inspector can safely and conveniently view them.

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- (3) Scale installations shall have available ten standard 50-pound weights for testing the weighing equipment or suitable weights and devices for other approved equipment.
- (4) Scales must be tested for accuracy and serviced before use at a new site. Platform scales shall be installed and maintained with the platform level.
- (5) Scales which are overweighing (indicating more than true weight) will not be permitted to operate and all materials received subsequent to the last previous correct weighing accuracy test will be reduced by the percentage of error in excess of 1/2 of 1 percent.
- (6) In the event inspection reveals the scales have been underweighing, they shall be adjusted and no additional payment to the Contractor will be allowed for materials previously weighed and recorded.
- (7) All costs in connection with furnishing, installing, certifying or testing, and maintaining scales; for furnishing check weights, and scale house, and for all other items specified in this section for the weighing of highway and bridge construction materials for proportioning or payment shall be included in the unit contract prices for the various pay items of the project.
- h. When the estimated quantities in the proposal schedule for a specific portion of the work are designated as final pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the Engineer. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions. In addition, when the Contractor believes that a

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quantity specified as a final quantity is incorrect, a written request shall be made to the Engineer to check the quantity. The request shall be accompanied by calculations, drawings, or other evidence indicating why the quantity is in error. If the quantity is found to be in error, payment will be made in accordance with the corrected final quantity.

### **109.02 Scope of Payment**

a. Payments to the Contractor shall be made only for the actual quantities of each contract item, performed and accepted in accordance with the plans and specifications and, if upon completion of the construction, these actual quantities shall show either a decrease or increase from the quantities in the proposal schedule, the contract unit prices will prevail except as provided in Articles 109.03 and 109.04.

b. For lump sum contracts and for lump sum unit prices in unit price contracts, the Contractor shall submit for the approval of the Engineer, within fifteen (15) days of the execution of the contract, a schedule of values of the various components or portions of the work included in the lump sum price. This schedule, when approved by the Engineer, will be used to determine the work completed for the purpose of partial payments.

c. The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials and for performing all work under the contract in a complete and acceptable manner and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the prosecution thereof, subject to the provisions of Article 107.22.

d. If the “Basis of Payment” in the specifications relating to any unit price in the bid schedule requires that said unit price cover and be considered compensation for certain work or material essential to the item, this same work or material will

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not also be measured or paid for under any other pay item which may appear elsewhere in the specifications.

e. The payment of any partial estimate or of any retained percentage, in no way shall affect the obligation of the Contractor to renew or repair any defective materials used in the construction, or to be responsible for all damage due to such defects. No payment will be made for any unauthorized work.

f. Checks for payment shall be issued in the name of the Contractor and will be mailed to the Contractor at the official mailing address registered by him at the Authority. If the Contractor desires to change his address for mailing of payment checks he shall so request in writing from the Director.

g. The Authority assumes no responsibility for claims from financing or surety companies about any change in mailing address requested by the Contractor.

### **109.03 Compensation for Altered Quantities**

a. As provided in Articles 104.02 and 104.03, when the actual quantities of work performed and accepted vary from the quantities in the proposal schedule due to approved alterations of the plans or character of the work within the general scope of the contract, or to normal overrun and underruns, the Contractor shall accept as payment in full, as far as contract items are concerned, payment at the original contract unit prices for the actual quantities of work accepted.

b. No allowances or other adjustments will be made except as provided in paragraph b. of Article 104.02 and in Articles 104.04, 104.05, and 108.11. Work covered by these exceptions will be paid for as stipulated in the appropriate extra work orders and supplemental agreements.

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### **109.04 Extra and Force Account Work**

a. Extra work performed in accordance with the requirements and provisions of Article 104.06 will be paid for at the unit prices or agreed prices stipulated in the order authorizing the work, or the Authority may require the Contractor to do the work on a force account basis.

b. No claim for extra work will be allowed unless ordered by the Engineer prior to the initiation of any construction on the work involved and subsequently covered by a supplemental agreement approved by the Engineer.

c. Extra work shall be performed in accordance with the plans, standard drawings, standard specifications and special provisions applicable to the items of work to be done.

d. Force account work shall be performed under the direct supervision of the Engineer and will be compensated as follows:

(1) Labor - For all labor and foremen directly employed on the specific operations, the Contractor will receive the rate of wage agreed upon in writing before beginning work for each and every hour that said labor and foremen are actually engaged in such work. The Contractor will also receive the actual cost paid to or on behalf of workmen by reason of subsistence and travel allowances, health and welfare benefits, pension fund benefits and other benefits when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work. To said costs and amount equal to 20 percent of the sum thereof will be added.

(2) Materials - For all the materials accepted by the Engineer and used in the work, the Contractor will

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receive the actual cost of such materials delivered to the work, including transportation charges paid by him but exclusive of machinery rentals as hereinafter set forth. To said cost an amount equal to 15 percent (15%) of the sum thereof will be added.

### (3) Equipment

(a) The Contractor will be paid rental for all equipment authorized by the Engineer to be used on the force account work. The rental to be paid will be computed using an hourly rate which is 1/176 of the monthly rate listed in the Rental Blue Book published by the PRIMEDIA Information Inc. of San José, California which is in effect at the time the equipment is used and adjusted as per the rate adjustment factor applicable to Puerto Rico.

(b) If monthly rates for the equipment to be used are not listed in the Rental Rate Blue Book, the hourly rental rate and operating costs to be paid will be negotiated with the Contractor prior to its use.

(c) In the case of equipment rented by the Contractor, the Contractor will be paid the actual rental rate for the equipment for the time that the equipment is assigned to the force account work but not to exceed the Blue Book rental rate computed as in paragraph (a) above.

(d) In the event that the required equipment is not at the project site and has to be moved in for exclusive use in the force account work, the Contractor will be reimbursed for the actual cost of transporting the equipment to the site of the force account

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work and the return to its original location. If the equipment is moved out to other than the original location, the move-out cost shall not exceed the move-in cost.

(e) Rental will be paid for the time in hours that the equipment is exclusively assigned to the force account work conditioned as follows:

1. No more than 8 hours during a 24-hour period nor more than 40 hours during a one week period, will be paid for unless additional hours of operation are ordered in writing by the Engineer.
2. For equipment at the project - No rental will be paid for the time the equipment is inoperative due to breakdowns in excess of one day.
3. For equipment moved in from outside the project - The minimum rental to be paid for each day of assignment will be 8 hours except if the Contractor uses such equipment in other work, in which case he will be paid only for the actual time the equipment is used in the force account work. No rental will be paid for the time the equipment is inoperative due to breakdowns in excess of one day.
4. Stand by Equipment – Compensation for Equipment at Work Site but not Operating - The Contractor will be paid rental for the authorized stand by equipment on site. The rental

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to be paid will be computed using an hourly rate which is 1/176 of the monthly rate listed in the Rental Blue Book published by PRIMEDIA Information Inc. of San José, California which is in effect at the time the equipment is used and adjusted as per the rate adjustment factor applicable to Puerto Rico.

(f) To compensate for all operating costs, exclusive of the equipment operators, the Contractor will be paid on the basis of the hourly operating cost rates listed in the Rental Rate Blue Book but only for the hours in which the equipment is in actual operation in the force account work. No operating costs will be paid when the equipment is idle. Equipment operators will be paid for as provided in paragraph 109.04 d (1) - Labor.

(g) Rental for equipment operated by its owner will be paid on the basis of the rates negotiated with the owner for the time that such equipment is directly assigned to the force account work. The rental rate shall include the cost of fuel, oil, lubrication, depreciation, repairs, storage, insurance and all other incidental costs including the wages of the operator.

(h) To the rental rates specified in paragraphs (a) through (e) and (g) above, an amount equal to fifteen (15) percent will be added.

(i) Prior to initiating the force account work, the Engineer will notify the Contractor

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of the equipment needed for the force account work and both parts shall agree in writing on the rental to be paid for such equipment on the basis of paragraphs (a) through (h) above. Except in emergencies, the Engineer shall notify the Contractor at least 72 hours in advance whenever any equipment on the project is needed for force account work. In the event that the Contractor elects to use equipment of a higher rental rate than the equipment determined to be suitable for the work, payment will be made at the rate applicable to the suitable equipment. The equipment actually used and the suitable equipment upon which the rental rate to be paid is based will be recorded as part of the record for the force account work.

(4) Tools - No allowance will be made for the use of small tools and manual equipment.

(5) Insurance and Taxes - For workmen's compensation insurance premium, unemployment insurance contribution, social security taxes, any other employment taxes or fees required by law, property damage and liability insurance premiums, any additional payment and performance bond premiums, and such other taxes as the Contractor is required by law to pay on the force account work, the Contractor will receive the actual cost. To said cost an amount equal to 10 percent will be added. The Contractor shall furnish satisfactory evidence of the rate or rates paid for such insurance and taxes.

(6) Superintendence and Miscellaneous:- No additional allowance will be made for general superintendence, overhead or other costs for which no specific allowance is herein provided.

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e. The Engineer will prepare a daily report for each force account job in accordance with the established procedures of the Authority. This report will detail all the labor, equipment, materials and incidentals used on the job and the work accomplished. This daily report will be submitted to the Contractor for his review and concurrence by signature thereon.

f. The Engineer will prepare monthly reports to coincide with the partial payment periods until the force account work is completed. These reports will detail all the eligible force account costs for each period covered. The Contractor shall be responsible for providing to the Engineer all the necessary data and documents needed to compute the costs and complete these reports which are not readily available to the Engineer, such as payroll data, materials invoices, equipment rental rates, transportation charges and insurance premiums. The monthly reports will be submitted to the Contractor for his review and concurrence by signature thereon prior to reimbursing the Contractor for the force account work.

g. The additional payments, based on the percentages stated above, shall constitute full compensation for all items of expense not specifically designated. The total payment made as provided above shall constitute full compensation for such work.

### **109.05 Payment for Eliminated Items**

a. If acceptable material is ordered by the Contractor for an item totally or partially eliminated prior to the date of notification of such elimination by the Engineer, and if orders for such material cannot be cancelled, it will be paid for at the actual cost to the Contractor. In such case, the material paid for shall become the property of the Authority. If the material is returnable to the vendor and if the Engineer so directs, the material shall be returned and the Contractor will be paid for the actual cost of charges made by the vendor for returning the

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material. The actual cost of handling returned material will be paid for.

b. Any actual costs, necessary to the performance of an item of work, other than the purchase of materials, incurred by the Contractor prior to the date of notification of elimination, for actual work done, including the transportation of materials to the work site, will be paid for.

c. The cost of transporting any materials that become the property of the Authority to the designated delivery site will be reimbursed on an agreed price basis or on a force account basis.

d. No allowance will be made for claims for loss of anticipated profits or loss of expected reimbursement for the elimination of any item.

### **109.06 Partial Payments**

a. Partial payments will be made at least once each month as the work progresses. More frequent payments may be made during any period when, in the judgment of the Authority, the value of work performed during such period is of sufficient amount to warrant same. Said payments will be based on estimates prepared by the Engineer of the value of the work performed during the preceding period in accordance with the contract, including force account work, and for acceptable materials delivered in accordance with Article 109.07.

b. Partial payments shall be considered as approximate only. The making of partial payments to the Contractor shall not be construed as an acceptance on the part of the Authority of any part of the work done or material furnished under this contract, but only as payment on account.

c. Partial payments may be suspended when in the judgment of the Engineer the work has not proceeded according to the terms of the contract.

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### **109-07            Payment for Material on Hand**

- a. Advance payment may be made to the Contractor for the cost of materials which are to be incorporated into the work, provided the materials meet the requirements of the plans and specifications and are on hand at the job site or stored in acceptable storage places. No advance payment will be made on living or perishable plant materials. In the case of materials which have been purchased by the Contractor, the cost shall be determined by the vendor's invoice. In the case of materials manufactured or obtained by the Contractor through the use of his own workmen or equipment, the cost will be determined by the Engineer in accordance with and based upon that particular unit of the project in which the materials are to be utilized.
- b. The Contractor shall present signed receipts or other documentary evidence to prove that the cost of the materials for which he is to receive advance payment has been paid in full or, if the materials have not been paid for, the invoice shall be accompanied by a release from the materials dealer expressing his agreement with the payment for such materials to the Contractor by the Authority.
- c. If at any time after the Contractor has received advance payment for materials on hand at the job site, the Engineer obtains evidence indicating that said materials, or any part or parts thereof, are defective, or that said materials, or parts thereof, do not conform to the specifications, the Engineer will proceed to deduct from any of the succeeding partial payments due the Contractor for work actually performed, a sum sufficient to cover the cost of the materials, or part or parts thereof, found to be defective.
- d. Materials for which the Contractor has received advance payment shall be properly housed at the job site or in acceptable storage places in the vicinity of the project in a secure manner that will insure the preservation of their quality and fitness for the work. Moreover, the Contractor shall not

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withdraw said materials for any purpose other than incorporation into the project, unless he has written authority from the Director to do so. Storage and protection costs, and the cost of replacing lost or damaged materials shall be borne by the Contractor.

e. Approval of partial payments for stockpiled materials will not constitute acceptance of such materials for use in completing items of work.

f. An amount equal to the value of materials incorporated into the work and for which an advance payment has been made, shall be deducted from the partial estimates.

g. At the option of the Engineer, payment may be made to the Contractor for materials fabricated, precast or otherwise produced for this specific project and stored at an approved site in Puerto Rico other than in the immediate vicinity of the project, provided the Contractor furnish and file with the Authority insurance which shall protect the Contractor and the Authority from all risk of physical loss or damage to these materials. The amount of such insurance shall not be less than the value of such materials.

### **109.08 Disputes and Arbitration**

This article is completely deleted.

### **109.09 Acceptance and Final Payment**

a. When the final acceptance of the project has been made as provided in Article 105.16, the Engineer will prepare the final estimate of the work performed. If the Contractor approves the final estimate or files no claim or objection to the quantities therein, within 30 days of receiving the final estimate, the Authority will process the estimate for final payment. However, final payment will not be made until the Contractor has filed with the Authority the consent of the surety

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to payment of the final estimate and satisfactory evidence by affidavit, or as otherwise required by the Authority, that all his indebtedness by reason of the contract has been fully paid or satisfactorily secured.

b. If there is any Contractor's claim pending arbitration, the final sum determined by the Engineer to be due will be processed for payment pending a decision on the claim. Upon final adjudication of the claim, any additional payment determined to be due the Contractor will be placed on a supplemental estimate and processed for payment.

c. All prior partial estimates shall be subject to adjustment in the final estimate to be retained or deducted under the provisions of the contract.

d. After approval of the final estimate by the Contractor, as qualified paragraphs a. and b. above, payment will be made for the sum found to be due after deducting all previous partial payments and all amounts to be retained or deducted under the provisions of the contract.

e. The acceptance by the Contractor of the final payment and any supplemental payment due under arbitration proceedings, shall operate as and shall be a release to the Authority from all claims or liabilities under this contract for anything done or furnished or relating to the work under this contract or for any act or neglect of said Authority or its agents relating to or connected with the contract.

## **GENERAL PROVISIONS**

f. If the Contractor has fulfilled all his obligations under the contract but fails to approve the final estimate, the final payment will be released after one year from the date of final acceptance of the work by the Authority and such action shall operate as a release to the Authority as if the Contractor had approved the final estimate, except for any claim pending adjudication under arbitration proceedings, provided the Authority has exercised reasonable efforts to notify the Contractor and obtain his approval of the final estimates.