



USAID | **WEST BANK/GAZA**
FROM THE AMERICAN PEOPLE

INFRASTRUCTURE NEEDS PROGRAM II

Assessment of Contractor Bond/Guaranty Requirements

Final Report

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TASK ORDER NO. 1



BUILDING A WORLD OF DIFFERENCE®



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List of Acronyms

AIDAR	USAID Acquisition Regulation	IRD	International Relief & Development
ADS	Automated Directive System	IQC	Indefinite Quantity Contract
B&V	Black & Veatch	JOD	Jordanian Dinar
BOQ	Bill of Quantity	MPWH	Ministry of Public Works & Housing
CO	Contracting Officer	MOT	Ministry of Transportation
COTR	Contracting Officer Technical Representative	NIS	New Israeli Shekel
CTD	Central Tendering Department	NTP	Notice to Proceed
CMC	Construction Management Contractor	O&M	Operations and Maintenance
CQCP	Contractor Quality Control Program	PA	Palestinian Authority
CRMP	Contractor Risk Management Program	PCU	Palestinian Contractors Union
FAR	Federal Acquisition Regulation	PWA	Palestinian Water Authority
FFUP	Firm-Fixed Unit Price	RFTOP	Request for Task Order Proposal
FIDIC	International Federation of Consulting Engineers (French)	USD	United States Dollar
INP I	Infrastructure Needs Program I	USG	United States Government
INP II	Infrastructure Needs Program II	USAID	United States Agency for International Development
		VO	Variation Order
		WBG	West Bank Gaza

1.0 Executive Summary

This assessment report reviews current bonding practices on USAID-funded construction projects in the West Bank for consistency with established guidance designed to protect the U.S. Government against risk of contractor nonperformance. It also explores the availability and costs of bonding for local and U.S. contractors in the local banking market, as well as the impact of these findings in anticipation of a future shift towards engaging local firms as prime contractors.

The USAID/WBG Mission requested this assessment to assist in its determination whether its standard approach (to require a 10% performance guaranty and a 5% maintenance guaranty) adequately protects the Government's interests and conforms to the Federal Acquisition Regulations (FAR) that state that "unless the contracting officer determines that a lesser amount is adequate for the protection of the U.S. Government, the penal amount of performance bonds must equal 100% of the original price of the contract."¹

Definitions of Performance Bonds / Guaranties

A performance bond is provided by a surety company, which commits to ensuring completion of the construction project should the contractor fail to satisfy its obligations, whether by stepping in and completing the project itself or hiring a contractor to do so. In the United States, where there is a supply of surety companies, performance bonds are the standard approach in protecting an owner against risk of contractor nonperformance and are almost invariably issued for 100% of the total contract value.

A performance guaranty, on the other hand, is a letter of credit provided by a financial institution and is a commitment by the bank to pay a penal amount to the owner should the contractor fail to fulfill its obligations. Performance guaranties are not typically used in the United States, but are used as standard practice in countries where no surety industry exists, including the West Bank. Typical international practice for performance guaranty penal amounts is 10% of total contract value, although it can range from 5-25%.² Further, in its *Country Contracting Handbook* related to Host Country Contracting, USAID policy includes a suggested range of 8-15% when using performance guaranties.

In the West Bank, the terms "performance bond" and "performance guaranty" are used interchangeably by banks, contractors, the Palestinian Authority, and local law, so these differences are not readily understood in the marketplace. However, it seems clear that what is meant in all cases is a performance guaranty. The assessment team found no evidence that an actual performance bond has ever been used in the West Bank.

Adequacy of Guaranty Levels

The assessment team was also asked to evaluate whether the current 10% performance guaranty and 5% maintenance guaranty levels sufficiently protect the U.S. Government. In addition to these guaranty requirements, USAID has in place several practices that mitigate financial and performance risk of construction projects in the West Bank, including: 1) engaging a construction management contractor (CMC) to conduct rigorous inspection, testing, and other quality control practices during construction, as well as operations and maintenance (O&M) oversight during the warranty period; 2) limiting the mobilization payment to 4% and requiring progress payments to be subject to the CMC inspection and approval process; and 3) including a Day Works line item in each task order that covers unforeseen conditions and/or local

¹ General Services Administration (GSA) et al. (2005, March). Bonds & Insurance: Amount Required. Federal Acquisition Regulations (FAR), I, 28.102-2.

² Barru, David J., The George Washington International Law Review 37. 1 (2005): 51-108.

community enhancements not included in the original project price. The assessment team believes that the combination of these elements, along with the 10% performance guaranty and 5% maintenance guaranty, would lead USAID to a determination that existing practices adequately protect the U.S. Government financially from contractor default and that there is no compelling reason to deviate from existing local and international practices.

Local Availability of Performance Guaranties

Because construction projects in the West Bank, regardless of funding agency, require performance and maintenance guaranties, these financial instruments are readily available in the local market. Banks provide them as a matter of course to both U.S. and local contractors, managing their risk through increased cash collateral requirements. Guaranty fees range from 1-2.5%, whereas cash collateral requirements vary depending upon the risk profile of the contractor. Typical cash collateral requirements range from 10-30%, but for high risk contractors (such as those with poor or little credit history with the bank), the cash requirement could equal the guaranty amount itself, or 100% collateral.

This means that while guaranties are readily available, the conditions in securing one place restrictions on a contractor's capital, which could be particularly burdensome for smaller local contractors with irregular cash flow or limited capital.

Future Shift to Local Prime Contractors

As the USAID/WBG Mission prepares to shift towards increased use of local prime contractors in line with the USAID Forward reform agenda,³ we believe USAID will conclude that its guaranty requirements should remain at 10% performance and 5% maintenance levels. Yet with this anticipated shift, USAID could consider other strategies that will build the capacity of the local contractor industry to serve as prime contractors. For example, local contractors would benefit from a broad training program around the specifics of submittal preparation, invoicing, equipment procurement, inspection and testing, warranty period, etc. for USAID projects in particular. Likewise, USAID could consider a program to raise the level of technical capabilities of local contractors in key quality assurance areas. USAID could also consider organizational strengthening of the Palestinian Contractors Union (PCU) as the organizing entity for the local contractor industry, and provide local contractor training in collaboration with the PCU.

Other local contractor strengthening approaches might include a small contractor mentoring program, similar to those implemented in cities across the United States, and perhaps building small contractor utilization requirements into RFTOPs. With that said, the most critical element will likely remain the CMC's continued proactive oversight role during contractor implementation. In a shift to local contracting, USAID may want to review both the contractual task requirements and the implementation of those tasks around the provision of this oversight to assess completeness, uphold quality standards, and backfill project responsibilities, if needed, with additional tasks.

³ Objective 2, "Building Local Development Leadership: USAID'S Operational and Procurement Improvement Plan," <http://forward.usaid.gov/node/316>.

2.0 Compliance with FAR and Other Supporting USG Policies

2.1 Overview of Requirements Relevant to USAID Foreign Construction Contracts

The Federal Acquisition Regulation System contains the regulations every federal agency must adhere to during the acquisition process. The primary rule set of this system is the Federal Acquisition Regulation (FAR). While all federal contracts must abide by the FAR in its entirety, the focus of this assessment is on the relevance of *Part 28 - Bonds and Insurance* and *Part 46 - Quality Assurance* in relation to USAID/WBG Mission construction projects and how these rules are applied as risk management and protection mechanisms under USAID's contracts.

Chapter 40 of the United States Code ([40 U.S.C. §§ 3131–3134](#)), otherwise referred to as the Miller Act, requires contractors of Federal government construction projects to provide performance and payment bonds on projects exceeding \$100,000 in value.⁴ FAR section 28.102 restates the Miller Act (40 U.S.C. 3131) bonding requirement, but differs by applying it to projects exceeding \$150,000 in value. While different guidelines apply for projects under the \$150,000 threshold, given the data set of USAID INP I construction projects in the West Bank (all exceeding \$150,000), this assessment focuses exclusively on regulations for contracts of \$150,000 or greater.

While the FAR and the Miller Act provide guidance across all government agencies, both allow the contracting officer to waive the bonding requirements for work performed in a foreign country. USAID has also developed additional guidance that supplements and expands upon these requirements. The primary source of this USAID-specific guidance is the Automated Directives System (ADS), USAID's directives management program that provides policy directives and procedures to which all agency employees must adhere.

Sections 302 and 305 of ADS provide guidance on "Direct Contracting" and "Host Country Contracts," respectively, for foreign construction contracts, and are supplemented by two references, the *Country Contracting Handbook*, which provides additional guidance on contract procurement and risk management relevant to *ADS 305 - Host Country Contracts*, and the AID Acquisition Regulations (AIDAR), the USAID-specific supplement to the FAR and which provides acquisition regulations that expand upon *ADS 302 - Direct Contracting*. USAID's *Country Contracting Handbook* provides relevant guidance on how contracting officers should determine eligibility and appropriateness of various risk protection mechanisms for foreign construction contracts in *Chapter 2: Procurement of Construction Services - Section 3.6.3 Establishing Requirements for Bonds or Guaranties*. The AIDAR discusses conditions where Advanced Payment Bonds may be required in section *PART 728 - Bonds and Insurance*.

We reviewed ADS 302 and 305 because of the relevant information each document contains relating to USAID's overall approach to international construction projects. The information obtained was to better inform the assessment team's understanding of USAID "preferred practices" around bonding and guaranties. A detailed discussion of relevant FAR regulations and policies is provided below.

2.2 Performance Bonds and Guaranties

According to FAR 28.102-1(a), the Miller Act (40 U.S.C. 3131) "requires performance and payment bonds for any construction contract exceeding \$150,000," but then goes on to say that this requirement may be waived by the contracting officer according to FAR 28.102-1(a)(1) "for

⁴ Miller Act, Bonds of Contractors of Public Buildings or Works, 40 [U.S.C. § 3131a](#).

as much of the work as is to be performed in a foreign country upon finding that it is impracticable for the contractor to furnish such bond.”⁵ In reviewing the Miller Act, it is also consistent in providing a “waiver of bonds for contracts performed in foreign countries”⁶ upon the contracting officer’s determination that the practice would be impracticable.

For such contracts performed in foreign countries, the interpretation of “impracticable” resides with the contracting officer and his/her determination of what constitutes impractical such as: the cost and availability of bonds, the degree to which a performance bond requirement would inhibit competitive participation of local contractors, and potential risk of contractor default.

According to FAR 28.102-2(b)(i), the Miller Act (40 U.S.C. 3131) specifies that contracts exceeding \$150,000 require performance bonds equal to “100 percent of the original contract price;” however, FAR 28.102-2(b) stipulates that this is required “unless the contracting officer determines that a lesser amount is adequate for the protection of the Government.”

Specific treatment of bonds and guaranties is also found in USAID’s *Country Contracting Handbook*, a reference cited in ADS 305, outlining circumstances in which a contracting officer may determine that bonds and/or other protection mechanisms are required.⁷ In Section 3.6.3.2, the Handbook states, “Solicitations for contractual requirements to be financed by USAID provide for either bonds or guaranties at the option of the contractor unless surety bonding is not available or local law requires a guaranty.”⁸ While this guidance is specific to Host Country Contracting and not directly applicable to Direct Contracting, which is the subject of this assessment, the guidance is useful in the absence of specific Direct Contracting guidance.

The Handbook states that USAID may use bonds or guaranties for contracting purposes, but does not mandate such protection mechanisms unless deemed necessary by the contracting officer. Under circumstances where they are deemed necessary, “USAID prefers the use of the surety bonds rather than bank guaranties as they are generally less costly to obtain and they place the responsibility for completion of contractual requirements on the surety.”⁹ Ultimately discretion on which protection mechanism is executed resides with the contracting officer. In cases where the contracting officer determines that performance bonds are required, “the amount of the performance bond should be 100% of the contract price.”¹⁰ In cases where the contracting officer determines guaranties are required by local law or are determined to be a more practical means of protection, a performance guaranty of 8% to 15% of the contract price is specified.¹¹

2.3 Release of Lien and Extension of Bond

Under FAR 28.102-2(e) the contracting officer is allowed to “reduce the amount of security to support a bond, subject to the conditions of 28.203-5(c) or 28.204(b).”¹² The conditions for these sections are as follows:

⁵ General Services Administration (GSA) et al. (2005, March). Bonds & Insurance: General. Federal Acquisition Regulations (FAR), I, 28.102-1.

⁶ Miller Act, Bonds of Contractors of Public Buildings or Works, 40 [U.S.C.](#) § 3131d.

⁷ Section 3.6.3.2, General – Establishing Requirements for Bonds or Guaranties, Chapter 2 Procurement of Construction Services, *Country Contracting Handbook*, ADS 305.7 Mandatory References, ADS Chapter 305 - Host Country Contracts.

⁸ Ibid. Section 3.6.3.2, General.

⁹ Ibid.

¹⁰ Ibid. Section 3.6.3.3, Bonds.

¹¹ Ibid. Section 3.6.3.4, Guaranties.

¹² General Services Administration (GSA) et al. (2005, March). Bonds & Insurance: Amount Required. Federal Acquisition Regulations (FAR), I, 28.102-2.

Section 28.203-5(c)

“Upon written request by the individual surety, the contracting officer may release a portion of the security interest on the individual surety’s assets based upon substantial performance of the contractor’s obligations under its performance bond. Release of the security interest in support of a payment bond must comply with the paragraphs (a)(1) through (3) of this subsection. In making this determination, the contracting officer will give consideration as to whether the unreleased portion of the lien is sufficient to cover the remaining contract obligations, including payments to subcontractors and other potential liabilities. The individual surety shall, as a condition of the partial release, furnish an affidavit agreeing that the release of such assets does not relieve the individual surety of its obligations under the bond(s).”¹³

Section 28.204(b)

“Upon written request by any contractor securing a performance or payment bond by any of the types of security listed in 28.204-1 through 28.204-3, the contracting officer may release a portion of the security only when the conditions allowing the partial release of lien in 28.203-5(c) are met. The contractor shall, as a condition of the partial release, furnish an affidavit agreeing that the release of such security does not relieve the contractor of its obligations under the bond(s).”¹⁴

The release of lien following substantial completion is an option afforded to the contracting officer within the FAR, but not a requirement. The decision to reduce the security, and by what amount, is up to the discretion of the contracting officer so long as he/she maintains enough security on the project to sufficiently cover the remaining contractual obligations.

Although the exact reduction amount is not specified within the FAR, the practice of reducing the guaranty (or bond) by 50% is standard international practice according to the literature review.¹⁵ Within the *Guide to the Use of FIDIC* under Certificates of Payment – Payment of Retention Money Security, it states: “Upon the issue of the Taking-Over Certificate with respect to the whole of the Works, one half of the Retention Money... shall be certified ... for payment to the Contractor.”¹⁶ It then goes on to explain that “Retention Money” refers to “one of the securities held by the Employer to ensure fulfillment by the Contractor of his obligations in respect of defects.”¹⁷

Referring back to FAR 28.203-5, the section also identifies the time at which the contracting officer can release the security in its entirety. Regardless of the type of contract, the FAR stipulates that the security (bond/guaranty) should be maintained for one year after project completion or for the entire warranty period as applicable to performance bonds.

Section 28.203-5(a)(1)

“Contracts subject to the Miller Act. The security interest shall be maintained for the later of

- (i) 1 year following final payment;

¹³ General Services Administration (GSA) et al. (2005, March). Bonds & Insurance: Release of Lien. Federal Acquisition Regulations (FAR), I, 28.203-5.

¹⁴ General Services Administration (GSA) et al. (2005, March). Bonds & Insurance: Alternatives in lieu of corporate or individual securities. Federal Acquisition Regulations (FAR), I, 28.204.

¹⁵ Ruwanpura, Janaka Y; Ariaratnam, Samuel T; Peters, Barry K. Bonding procedures for North American and international construction contracts. *Engineering Management Journal* 11. 2 (Jun 1999): 28-34.

¹⁶ FIDIC. *Guide to the Use of FIDIC: Conditions of Contract for Works of Civil Engineering Construction*. 4th Ed, 1989. Payment of Retention Money Clause 60.3, p 136.

¹⁷ *Ibid.*, p 136.

- (ii) Until completion of any warranty period (applicable only to performance bonds); or
- (iii) Pending resolution of all claims filed against the payment bond during the 1-year period following final payment.”¹⁸

Section 28.203-5(a)(2)

“Contracts subject to alternative payment protection (28.102-1(b)(1)). The security interest shall be maintained for the full contract performance period plus one year.”¹⁹

Section 28.203-5(a)(3)

“Other contracts not subject to the Miller Act. The security interest shall be maintained for 90 days following final payment or until completion of any warranty period (applicable only to performance bonds), whichever is later.”²⁰

¹⁸ General Services Administration (GSA) et al. (2005, March). Bonds & Insurance: Release of Lien. Federal Acquisition Regulations (FAR), I, 28.203-5.

¹⁹ Ibid.

²⁰ Ibid.

3.0 Local Environment and Practices related to Construction Implementation

3.1 Contractor Non-Performance Protection in the Local Context

As described above, while the FAR specifies the use of performance and payment bonds in construction projects, it provides the contracting officer with the flexibility to waive the performance bond requirement “for as much of the work as is to be performed in a foreign country upon finding that it is impracticable for the contractor to furnish such a bond.”²¹

Performance bonds are used as standard practice in the United States where surety companies are in supply. The purpose of the bond is to ensure the completion of the project in accordance with the contract. For this reason, bonds are typically issued at 100% of the contract value in the event the surety would need to complete the construction itself.

However, there are no surety companies in the West Bank, and local standard practice is to provide bank guaranties as a means to protect the construction project owner against the risk of contractor nonperformance.

As has been USAID’s practice for over a decade, the penal amount of performance guaranties is 10% and maintenance guaranties is 5% for construction projects in the West Bank. The Palestinian Contractors Union (PCU), Palestinian Authority Central Tendering Department (CTD), banks, and both U.S. and local contractors all confirmed this practice has been in place since the PA came into existence, and that the percentages rarely differ from the 10% / 5% standard, no matter the funding entity.

In addition, Palestinian Authority “Law No. (6) For The Year 1999 Concerning Tenders For Governmental Works” mandates a “performance bond...at the rate of 10% of the value of the contract” and a “maintenance guaranty...at the rate of 5% of the actual project value after completion.”²² This law specifies the tendering procedures that apply to all public works construction projects exceeding \$150,000 in value. Although this law does not require international donors follow these same tendering procedures, the law provides further evidence of the 10% performance and 5% maintenance guaranty standard in the West Bank.

The CTD indicated the law is based on and consistent with the International Federation of Consulting Engineers (FIDIC), which is recognized as the international standard for contracting agreements, specifically the FIDIC *Conditions of Contract Construction (“Red Book”)*.²³ The organization also publishes manuals explaining how to use these books. Within the *Guide to the Use of FIDIC* it states, “Performance guaranties for international contracts are usually ten percent of the Contract Price whereas surety bonds which guaranty completion of the Contract are usually set at a much higher percentage.”²⁴

Outside of the U.S. where bank guaranties are required, letters of credit are usually written for between 5-25% of the contract value;²⁵ reaffirming the West Bank’s adherence to FIDIC and

²¹ Objective 2, “Building Local Development Leadership: USAID’S Operational and Procurement Improvement Plan,” <http://forward.usaid.gov/node/316>.

²² Part Eight Guarantys and Fines, Article 35.1, Unofficial Translation of Law No. (6) For The Year 1999 Concerning Tenders For Governmental Works provided by the Central Tendering Department, Ministry of Public Works & Housing.

²³ FIDIC. *Conditions of Contract Construction: For Building and Engineering Works Design by the Employer*. 1st Ed, 1999.

²⁴ *Ibid.* Performance Security Clause 10.1, p 57.

²⁵ Barru, David J., *The George Washington International Law Review* 37. 1 (2005): 51-108.

usage of 10% is consistent with international norms. Additionally, “even though this range represents a relatively small percentage of the contract value, bank guarantees...provide considerable protection to the project owner,”²⁶ addressing the question of sufficiency regarding the amount.

3.2 Local Contractor Industry

Palestinian contractors are organized through the Palestinian Contractors Union (PCU). The PCU was established in 1994 as a “professional, economic, and social entity” with the goal to organize “the practice of the construction contracting profession in Palestine.”²⁷ According to a PCU contractors classification list provided by International Relief & Development (IRD),²⁸ there are currently 430 available contractors in the West Bank as of July 2011.

While an important stakeholder, it is important to recognize the PCU is a weak organization with possible conflicts of interest around the classification process. Nonetheless, the classification system provides a framework for the division of local contractor capabilities by sector. The PCU categorizes contractors into ten sectors: Building, Water & Sewer, Roads, Water Purification, Electrical, Electro-mechanical, Metal Structures, Mechanical, Earthwork, and Well Drilling. As seen in Table 1 below, the majority of local contractors fall under Buildings, Water & Sewer, or Roads.

Table 1: Number of PCU Contractors Listed by Classification and Sector

Class	Building	Water & Sewer	Roads	Water Purification	Electrical	Electro-mechanical	Metal	Mechanical	Earthwork	Well Drilling
1A	16	0	6	0	0	0	0	0	0	0
1B	53	0	10	0	0	0	0	0	0	0
1	0	32	0	1	4	13	2	5	0	0
2	95	30	28	4	5	18	1	2	0	1
3	78	24	45	0	5	11	2	2	0	0
4	62	46	48	0	5	0	0	1	0	0
5	68	111	145	0	0	0	0	0	0	0
TOTAL	372	243	282	5	19	42	5	10	0	1

Note: Total number of Contractors is 430, but many are classified in more than 1 sector.

Source: PCU Contractors List, July 10, 2011.

Based on an annual application process, each contractor is assigned a classification per sector based on the criteria outlined in the “Instructions for Palestinian Contractors Classification 1994;”²⁹ these classifications range from 1A (highest) to 5 (lowest). The requirements for the Roads and Water & Sewer sectors, which are the sectors most prevalent in INP I and INP II, can be seen in Table 2 below.

²⁶ Ibid. The Amount of the Credit, p 20.

²⁷ Palestinian Contractors Union. About Us – Objectives. 2003.

²⁸ Palestinian Contractors Union. Listing of Contractors by Classification & Sector. July 2011.

²⁹ Palestinian Contractors Union. Forms Library – Classification Instructions (1994). 2003.

Table 2: PCU Requirements for Contractor Classifications in Roads and Water & Sewer Sectors

Office Space (m ²)	Completed Projects Value (Thousands USD)	Minimum Projects Value (Thousands USD)	Maximum Projects Value (Thousands USD)	Equipment Value (Thousands USD)	Capital (Thousands USD)	Class	Specialty
175	5,664	5,664	17,700	460	460	1a	Roads
140	2,124	2,832	5,664	283	283	1b	
120	708	1,416	2,832	177	177	2	
75	212	354	708	71	71	3	
50	71	142	354	35	35	4	
30	-	71	142	18	18	5	
140	1,416	2,832	5,664	177	177	1	Water & Sewer
120	708	1,416	2,832	106	106	2	
75	354	708	1,416	53	53	3	
50	106	354	708	21	35	4	
30	35	71	142	11	11	5	

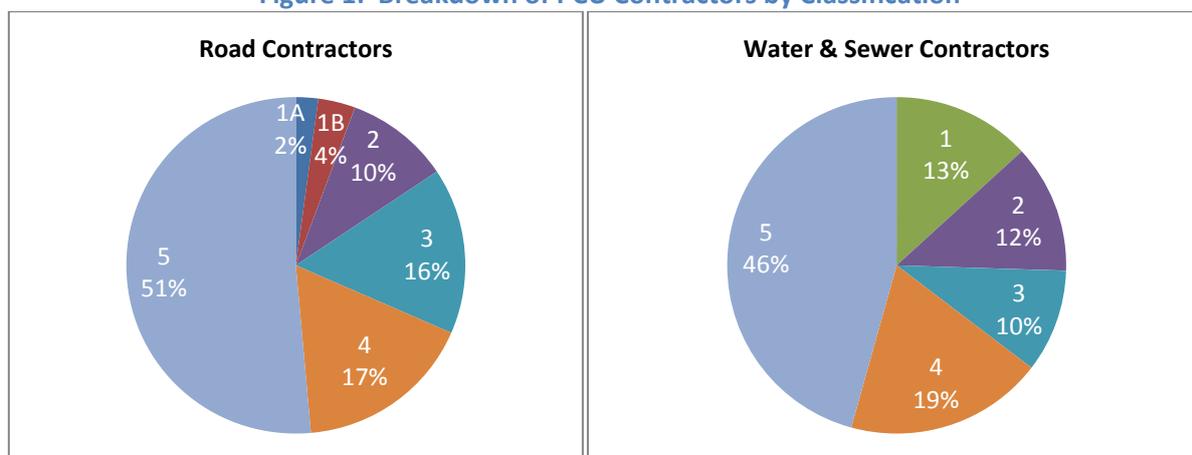
Note: Original amounts in Jordanian Dinar (JOD). 1 USD = 0.708 JOD

Source: PCU Classification Instructions – Annexes

As identified within the PCU’s application form, the following financial documents are required for review: Ministry of Transportation registered equipment value, Department of Industry and Commerce registered company capital, and annual balance sheet certified by a Ministry of Finance registered accountant.

Of the 282 designated Roads sector contractors, only 16 are classified as 1A or 1B representing just 6%. Of the 243 Water & Sewer contractors, only 32 are classified as 1 representing 13%. Both of these breakdowns can be seen in Figure 1 below. These figures demonstrate that the vast majority, over three-fourths, of contractors are ranked at a classification of 3 or less. While the classification system may not necessarily reflect actual contractor capabilities, this information provides insight regarding the relatively small number of contractors who can execute larger, more complex projects.

Figure 1: Breakdown of PCU Contractors by Classification



Source: PCU Contractors List, July 10, 2011.

3.3 Local Bank Guaranty Availability

The West Bank's banking sector is represented by a handful of local, regional, and international institutions, the primary ones being those listed in Table 3 below.

Table 3: Local, Regional, and International Banks Present in the West Bank

Arab Bank	Arab Islamic Bank
Bank of Jordan	Cairo-Amman Bank
Bank of Palestine	HSBC Bank Middle East
Jordan Gulf Bank	Jordan National Bank
Quds Bank	Union Investment Bank

The banks providing the majority of guaranties for USAID-funded construction projects are the Bank of Palestine and Arab Bank. Guaranties are provided through bank credit departments. It is relatively easy for local contractors to obtain guaranties, while U.S. contractors must first establish an active banking relationship with a local bank. The key elements that banks consider when approving a guaranty are:

- 1) Overall relationship with the bank, including duration, level of activity, and credit history;
- 2) Letter of commitment from USAID and/or a U.S. prime contractor of a USAID project confirming project award, value, and that payments will be made directly into the contractor's account at the bank;
- 3) Registered capital and financial statements; and
- 4) Past performance in successfully completing previous projects.

Contractors who are well established bank customers are provided with "pre-approved" guaranty limits, and obtaining a guaranty is a simple process. Limits are established based on the criteria listed above, and those without established guaranty limits go through a credit application process where the above criteria are considered.

Local contractors are accustomed to obtaining a guaranty prior to receiving a project Notice to Proceed (NTP), whether from USAID, other donors, or directly from the Palestinian Authority. Equally, banks are accustomed to providing them. All parties with whom the assessment team met confirmed that it would be very unusual for a contractor to be denied a guaranty. Instead, as risk increases for banks (i.e., with a first-time request or a contractor with previous credit issues), the fees may be raised along with the required cash collateral.

Typical fees for guaranties through local banks are 1-2.5%. IRD indicated that it switched from U.S. bank guaranties to local guaranties due to enormous cost savings (fees in the U.S. were 8% or more). These fees are passed on to USAID through their incorporation into the contractor built, owner approved firm-fixed unit prices listed in the BOQ.

In addition to the fees charged, banks require cash collateral – funds that remain frozen in an untouchable account for the duration of the guaranty. The cash collateral can range from 0-100% depending upon the risk profile of the contractor, as assessed by the bank, but most typical requirements are in the 10-30% range. This requirement can create a substantial burden on local contractors; in some cases, the collateral requirement may necessitate the need for a separate loan to cover this collateral, and then a portion of their invoice payments goes to servicing the loan interest.

Similar to denial of a guaranty being a rare occurrence, so would be the calling in of a guaranty according to all interviewees. In fact, many struggled to even think of one example when this

occurred. The only such example was for a project procured directly with the Palestinian Authority due to the lack of payment by the PA itself to the contractor.

The assessment team's review of local practices confirmed that locally provided bank guaranties are readily available to U.S. and local contractors, and that there are no overall limitations on the amount of guaranties. Guaranties continue to be a viable mechanism to protect the U.S. Government against risk of contractor nonperformance.

4.0 Overall Risk Management & Mitigation

The performance and payment bonds described in the FAR and the Miller Act are intended to protect the U.S. Government in the event that a contractor is unable to perform its duties under the contract and/or defaults prior to project completion.

The overall environment in which a project is designed, procured, and built impacts the necessity and extent of “protection” that construction bonds provide. Several academic studies support the notion that bank guaranties can be used in place of 100% performance bonding (see Appendix F: Selected Literature), but stipulate that certain risk mitigation should be incorporated into those projects. In this section, overall risk management and mitigation approaches are reviewed.

Mitigation of the financial risks surrounding a construction project can be accomplished by establishing and implementing risk management procedures throughout the design, procurement, and construction phases. Generally, these processes serve as backstops to prevent schedule delays, additional costs, and contractor claims. Relative to performance and maintenance guaranties, these processes greatly decrease the possibility, and need for, executing the guaranty.

4.1 Engineering & Construction Management

USAID awarded an IQC to Architecture & Engineering (A-E) firm Black & Veatch to provide the necessary oversight of projects under INP II in order to ensure proper risk measures are established, followed, and mitigated as needed throughout the design and construction phases. Under the Summary SOW section, USAID outlined the following required services:

- General Management and Administration
- Design of Roads
- Construction Management of Awarded Task Orders – Road Projects
- Design of Water and Wastewater Projects
- Construction Management – Water and Wastewater Projects
- Training, Operation and Maintenance, Institutional and Capacity Building
- Construction Management Services

As per USAID’s requirements, Black & Veatch has established a comprehensive set of construction procedures under their *Contractor’s Manual*, which all contractors must review and accept as part of award. This contractual obligation greatly increases USAID’s protection from future failures or disputes through ongoing performance and quality safeguards, and are outlined in the sections below.

4.1.1 Quality Control

USAID’s Task Order No. 1 with Black & Veatch identifies several quality control requirements under Section G—Construction Management Services including:

- 4.) Quality services related to the oversight and supervision of construction contractors’ quality control services, including, at a minimum, confirmation that the standards required by the contract are met.
- 5.) Review construction contractor’s schedules, budgets, quality assurance, and quality control plans.

13.) Review and approval of the contractor's QA/QC plan(s).

As required, Black & Veatch has made the contractor responsible for establishing a Contractor's Quality Control Program (CQCP) as part of the required pre-construction submittals under Section 7 Quality Control of their *Contractor's Manual*.

4.1.2 Testing & Inspection

USAID's Task Order No. 1 with Black & Veatch identifies several testing and inspection requirements under Section G—Construction Management Services including:

14.) Provide services to monitor construction and prepare reports and take necessary measures to confirm that the contractor is in compliance with the contract requirements.

26.) Carry out the necessary inspections; shortly before the end of the construction period, determine the remaining work to be completed and, when it is satisfactorily completed, issue in coordination with the Contracting Officer and the COTR Certificates of Substantial or Final Completion.

Within the same chapter as quality control, Black & Veatch has identified inspections standards under Section 7.5 Tests of the *Contractor's Manual*. Failure to submit tests as outlined in this section "may result in nonpayment for related work performed."

4.1.3 Project Close-out

USAID's Task Order No. 1 with Black & Veatch identifies several project close-out requirements under Section G—Construction Management Services including:

24.) Upon completion of the work, the CMC will review, certify, and accept construction contractor "as-builts" drawings, as well as other documentation required in the contract.

25.) Review and oversee the preparation of Systems Operation and Maintenance (O&M) Manuals as required under the contract. This activity must be completed before handing over to USAID.

30.) Provide oversight of the QA/QC inspection services during the Defects Liability Period to verify acceptable completion of all work per contract specifications for proposed construction activities and monitor, report and take the necessary measures to ensure proper project contract close-out.

The project close-out process serves as the final opportunity to correct work prior to owner acceptance and turnover; any outstanding contractor non-compliance or quality issues should be addressed at this stage. Section 10 outlines the standard measures involved in verifying the project's completeness including: walkthroughs, punch-list, acceptance certificate, and maintenance bond.

These types of programs (quality control, testing & inspection, and project close-out) confirm the contractor maintains high-quality level of operation throughout construction. From a guaranty perspective, each program proactively reduces, and ideally eliminates, the potential financial impact from contractor default through regular reviews of the completed work.

Increasing the overall level of quality decreases the likelihood of defective work, as quality control programs set the baseline for what is minimally acceptable. In the event of contractor default, the cost to complete the project would only be the costs to secure a new contractor and not the costs of a new contractor plus the additional costs of rework for deficient items.

Next, the testing and inspection phase validates the recently completed work. Inspections provide the owner with confidence that the contractor is installing work to the expected industry level and all components are free of defects or issues, while testing verifies that the installed products are operating as the manufacturer intended. This next step in the construction oversight process elevates the quality control phase beyond the established minimum installation requirements, further reducing the potential financial impact from contractor default.

Finally, as stated earlier, the project close-out phase serves as the final opportunity to correct defective work prior to owner acceptance and turnover. As work is substantially completed at this stage, contractor default would actually result in minimal financial impact, which would be adequately covered under the performance guaranty. However, the total costs are not as important as the amount of work requiring replacement prior to owner turnover. The less the total number of deficiencies identified at this stage, the less likely it becomes that the owner will need to call in the guaranty either during the remaining performance period or during the extended warranty period following construction.

4.2 Payment Terms & Approval Procedures

4.2.1 Contractor Payment

USAID's Task Order No. 1 with Black & Veatch identifies several payment requirements under Section G—Construction Management Services including:

- 20.) Review the construction contractor's payment invoices and make associated recommendations for payments to USAID. The CMC shall certify that the completed work has been carried out in accordance with the requirements of the contract.
- 21.) Promptly examine and prepare recommendations regarding construction contractor claims for extensions of time, payment for extra work and other similar matters.

As required, Black & Veatch has set up a payment procedure under Section 5 Payments to the Contractor in its *Contractor's Manual* for measuring and validating work product in order to make progress payments, specifically under Section 5.3 and Annex A.

As the construction projects under USAID are firm-fixed unit price (FFUP) contracts and Bill of Quantity (BOQ) payments, the contractor payment is based on "actual work performed as determined by measurements made by the Contractor, and certified by the CMC."³⁰ Since work must be approved prior to payment, this greatly reduces the financial exposure of USAID concerning the performance guaranty, as the total payment will not exceed the amount of work completed.

4.2.2 Payment Withholding

Beyond the progress payment procedures discussed above, Black & Veatch has also established a payment withholding procedure for situations where work has not been satisfactorily completed by the contractor.

Section 6.5 – The Notice of Non-Compliance Report Process of the *Contractor's Manual* states that "the value of work identified as being non-compliant will not be included in the Monthly Progress Payment Request."³¹ So in addition to the progress payment structure, this practice

³⁰ USAID/West Bank Gaza Infrastructure Needs Program II (INP II). Black & Veatch *Contractor's Manual*. 1st Ed, April 2011.

³¹ *Ibid.* Section 6.5 – The Notice of Non-Compliance Report Process, p 6-2.

deducts portions of submitted payment requests until satisfactory correction of the deficient items. Again, this provides that the owner does not make any payments for unacceptable work.

Progress payments and payment withholding serve a very important risk mitigation role during the construction process. Considering contractor default is not a predictable event, the owner needs to protect its interests in light of such occurrence. Making incremental payments on acceptable work completed to date and denying payment on unacceptable work affords the owner a smooth transition if the contractor should default and a new one is required to finish the project. The importance of these payment practices becomes even more relevant when looked at in conjunction with the quality control measures established; the practices work in concert to reduce the owner's financial exposure. The practices in place provide that the owner does not pay for deficient work because the CMC is continuously assessing and accepting the work during placement in the field.

4.3 Day Works

USAID utilizes what essentially translates to a contingency line item and is referred to as "Day Works" within each project RFTOP budget. The primary uses for this additional funding are to cover: Variation Orders (VOs), unforeseen conditions, and local community requests.

Based on discussions with USAID and Black & Veatch, the Day Works allowance is typically used, but project costs do not exceed the ceiling price. Out of the 54 roads and water projects currently under warranty, 46 task orders were completed at the full contract value while 8 de-obligated unused funds back to USAID. Occasionally funds are moved from one project to another within the same task order.

Both the INP I and INP II programs included language regarding the Day Works line item within their respective RFTOPs, primarily that Day Works:

- May or may not be authorized,
- If authorized, may do so either partially or completely,
- Must be approved by USAID prior to authorization, and
- No amount will be paid in excess of the ceiling price (Task Order + Day Works).

The Day Works allowance on INP I projects ranged from \$100,000-\$500,000, representing approximately 5-8% of the obligated total price; however, each Day Works amount is determined based on the specific circumstances of each project and does not rely on a certain percentage as is typical with U.S. construction contingency practices. Considering the performance guaranty is 10% of the full task order ceiling price, including the Day Works line item, USAID is actually securing additional protection indirectly from the inclusion of the Day Works amount. This presents a situation for USAID to increase their protection by raising the Day Works line item while still maintaining the 10% guaranty contractually required.

However, it does nothing to reduce the possibility of calling in the guaranty. The riskiness of a project ultimately is controlled by the management practices outlined earlier in this section. Successful execution of these measures both reduces the potential calling of the guaranty in general and increases the sufficiency of the guaranty amount in the unlikely event of a default.

5.0 Existing Risk Sufficiency

5.1 Guaranty Sufficiency

The assessment team’s scope of work included the evaluation of the current 10% performance and 5% maintenance guaranties to determine whether or not the practices were still relevant in today’s West Bank construction market in addition to sufficiently covering USAID’s risk. Through the assessment team’s onsite interviews, contract document analysis, governmental regulations review, and industry research – it was determined that the 10% performance and 5% maintenance guaranties are sufficient from a mathematical, cultural, and international perspective.

Due to the relatively low construction cost and technical complexity of USAID projects, the 10% sufficiently covers the financial risk based on an analysis of INP I projects. In order to assess that the amount was indeed sufficient, the assessment team analyzed situations whereby the default amount could potentially exceed the performance guaranty. Instances from this analysis are detailed in Table 4 below. Because of the existing project risk management measures outlined in Section 4.0 above, the assessment team could identify few situations where the 10% guaranty would not sufficiently cover the financial outlay resulting from a contractor default.

Table 4: Guaranty Scenarios Matrix

CONSTRUCTION DEFAULT SCENARIO	REMEDATION ACTION	GUARANTY IMPACT
USAID pays the contractor for the mobilization fee, but contractor fails to complete any work.	<i>Existing USAID Process.</i> USAID pre-qualifies bidders who competitively bid on TOs, reducing the chance of pre-mobilization default.	<i>Covered by guaranty.</i> USAID loses the 4% mobilization fee.
USAID pays the contractor for stored materials, but materials are not installed upon delivery.	<i>No Existing USAID Process.</i> USAID should include language in RFTOPs similar to B&V Contractor’s <i>Manual</i> which limits payment to 75% of value for properly stored and secured material. Withholding full payment provides incentive for contractor to finish.	<i>Covered by guaranty.</i> USAID secures a new contractor. The cost of new labor to install the returned materials will be offset from not pre-paying the labor of the original contractor.
USAID issues a single Variation Order (VO) for more than 10% of the original contract value.	<i>No Existing USAID Process.</i> USAID should include language in RFTOPs similar to the FAR which requires guaranty amounts to be commensurately increased with the value of the Variation Order.	<i>Without Day Works:</i> USAID is not covered on costs beyond the 10% guaranty unless language is added to increase guaranties in line with VOs. <i>With Day Works:</i> USAID would use Day Works money and cover the remaining amount with the 10% guaranty.
Unforeseen conditions account for a project budget increase of more than 10% over the original value.	<i>Existing USAID Process.</i> USAID accounts for potential construction liabilities in each project through the Day Works allowance.	<i>Without Day Works:</i> USAID is not covered on costs beyond the 10% guaranty. <i>With Day Works:</i> USAID would use Day Works money and cover the remaining amount with the 10% guaranty.
USAID pays the monthly progress request, which is greater than 10% of the total task order value.	<i>Existing USAID Process.</i> USAID requires CMC to validate all work completed to date prior to any payment.	<i>Covered by guaranty.</i> Payment is made only after work is validated and approved; USAID would not need to call in the guaranty.

Prime contractor defaults without paying subcontractors.	<i>Existing USAID Process.</i> USAID includes “confirmation clauses” requiring primes to certify their subcontractors have been paid for work included under prior USAID invoices.	<i>Covered by guaranty.</i> Subcontractor would claim payments from USAID and USAID would pay outstanding amount from guaranty after validating the claimed amount.
USAID has paid the contractor for work completed, but work is deemed deficient at a later date.	<i>Existing USAID Process.</i> USAID requires CMC to verify and accept all quantities, and their quality, prior to approving progress payment.	<i>Covered by guaranty.</i> If contractor does not remedy, USAID would pay for any deficient items using the guaranty.
Default after work is complete, but prior to progress review/payment.	<i>No Existing USAID Process.</i>	<i>Covered by guaranty.</i> USAID’s costs would be the difference between the contractor’s partial payment, replacement of deficient work (if any), and cost to acquire new contractor (at potential premium) to complete.

Within the West Bank, business failure is viewed very negatively socially, and therefore, provides a cultural incentive for contractors to do everything within their power to prevent a default. From the assessment team’s interviews, it became apparent that everyone from the U.S. prime contractors to the banks generally understood that local contractors would do whatever was in their power to prevent a guaranty from being called in. An example was provided where the original contractor did not have the resources to finish a project and so offered the work, in its entirety, to a fellow contractor in order to continuing progressing the project towards substantial completion and refrain from calling in the guaranty. This would suggest that the guaranty by itself, without consideration of the actual percent, protects the U.S. Government because of the stigma associated with its execution.

Furthermore, it came to the assessment team’s attention that many local contractors, especially those in the 3, 4, or 5 classifications, operate on an under-capitalized basis. Because these companies are not able to maintain a sizable cash reserve, there is an even greater incentive for them to do whatever is necessary to prevent the calling in of the guaranty. Such a situation could bankrupt the company, as the bank would request payment from the contractor as soon as the bank paid the owner. With the current construction market and lack of backlog projects, a single default would likely put a smaller contractor out of business.

Finally, as discussed in prior sections, the usage of performance guaranties is a generally accepted practice internationally. As previously noted, the 10% amount falls within the accepted range for international construction project performance guaranties.

All of the above suggest that USAID’s current guaranty levels are sufficient to address its risks effectively in combination with its established mitigation measures. If USAID were to look towards strengthening these measures further, the assessment team would suggest incorporating more of these practices explicitly into the RFTOP and task order contractual language, as discussed below.

5.2 RFTOP Recommended Language around Guaranties

As stated above, based on the assessment team’s evaluation of risk sufficiency, it is recommended that the current guaranty levels of 10% performance and 5% maintenance remain the same. Because they are called in rarely, if ever, they are not the primary mechanism through which USAID should manage project risk. The guaranties should remain in place as a general deterrent, and if necessary, as a “last resort” for extreme cases of nonperformance. However, construction project risk should instead be managed through proactive strengthening,

clarification, and implementation of CMC oversight processes and procedures to achieve satisfactory contractor performance in both construction and warranty periods.

At the same time, it is clear there is confusion with terminology between bonds and guaranties. One U.S. contractor indicated it thought USAID was now requiring actual surety bonds, based on the language in the INP II IQC, and was researching this option. Because there are no surety companies in the West Bank and USAID is not interested in pursuing this mechanism, the assessment team recommends, if possible, to adjust the RFTOP clause language, as follows:

“I.2 LETTER OF GUARANTY ~~OR BOND~~

Within fourteen (14) calendar days after the date of Task Order award, the Contractor shall furnish the Contracting Officer a Bank Letter of Guaranty (Guaranty) ~~or other acceptable surety~~ from an established bank, ~~insurance company~~ or financial institution that meets the approval of the Contracting Officer for the performance of all work in this Task Order.

The guaranty shall be in the amount of 10% of the Task Order value. The guaranty shall be dated as of the Task Order award date or no more than fourteen (14) calendar days thereafter. The guaranty shall state that it will continue in effect for one year after the date of the last work accepted by the Government under this task order, in the amount of 5% of the Task Order value. The guaranty shall also state that the bank/~~surety~~ agrees and consents that the task order may be modified by change order or supplemental agreement without affecting the validity of the guaranty.”³²

Likewise, it is recommended that this clause be augmented with language consistent with the *Country Contracting Handbook's* approach to require an increase in the guaranty, should the contract value increase: “If after contract award, the contract price is increased for any reason by more than 10 percent, USAID may require that the amount of the performance and/or payment bond or guaranty be increased in an amount satisfactory to USAID.”³³

Finally, while the FAR and other U.S. Government policy documents are not explicit on the subject of maintenance guaranties, it is recommended that USAID include language that further clarifies clause FAR 52.246-21 Warranty of Construction in the RFTOP, which states: “The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced shall run for one (1) year from the date of repair or replacement.”³⁴ It is recommended that USAID add language that the 1-year extension to the warranty and/or maintenance guaranty on “work repaired or replaced” during the initial warranty period shall be at the CMC’s discretion. In this way, USAID, through its CMC, may determine if the benefit of extending the warranty period and/or maintenance guaranty outweighs the administrative costs. Further, due to the fact that 100% of INP I projects currently under warranty have defects, and the assessment team faced questions around the need to clarify prime contractor responsibilities during the warranty period, USAID may want to consider an additional assessment around warranty phase clarification and strengthening.

³² Black & Veatch. Infrastructure Needs Program II draft RFTOP. Version 10.

³³ Section 3.6.3.2, General – Establishing Requirements for Bonds or Guaranties, *Country Contracting Handbook*.

³⁴ Black & Veatch. Infrastructure Needs Program II draft RFTOP. Version 10.

6.0 Future Shift to Local Prime Contracting

In November 2010, USAID launched its USAID Forward reform initiative. One stated objective is to “increase the number of partners and percentage of total dollars through direct contracts with local private businesses.”³ Based on this, the USAID/WBG Mission is preparing for a shift from U.S. to local prime contractor-led construction projects.

Interestingly, it was not too long ago that Palestinian contractors were prime contractors of USAID construction projects. Local contractors interviewed for this assessment indicated they had primed USAID projects of less than \$1 million as far back as 1999 and continued to do so until approximately 2008, when the Mission shifted to U.S. contractor-led IQCs through the Infrastructure Needs Program I.

As previously stated, the findings of this assessment are consistent with the preservation of performance and maintenance guaranties at 10% / 5%, respectively. With a shift from U.S. to local prime contractors, these findings would remain unchanged. Considering guaranties are virtually never called in and are a penal approach to addressing nonperformance, the amplified risk associated with local prime contracting should instead be mitigated through increased rigor around CMC inspection, testing, and quality control in combination with a targeted capacity building program for local contractors.

6.1 Current Capabilities

As described in Section 3.2 above, local contractors are classified by the PCU from 1A down to 5 based on PCU criteria for registered capital, equipment value, size of projects, etc. Interviewees explained that Class 1 contractors could likely manage large contracts of up to \$2 million, which includes 32 Water & Sewer contractors and 16 Roads contractors. Of those interviewed, many estimated that only 3-5 contractors could manage projects greater than \$5 million. Validation of these suggested thresholds and contractors requires further investigation.

Due to the smaller size (typically \$1-3 million) and lower complexity of roads construction projects, there was consensus among interviewees that local contractors could easily act in the prime contractor capacity for roads projects. On the other hand, due to the larger size (\$7-10 million), need for non-locally sourced equipment, and complex nature of construction, it is less certain that local contractors have the current capabilities to prime water construction projects.

As stated, this information is based on selected in-country interviews, and further investigations should be conducted to fully understand the current capabilities and financial capacity of the potential contractors classified under the Water & Sewer and Water Purification Plant categories. USAID may want to initially shift only roads projects to local prime contractors and retain U.S. prime contractors for more complex water projects.

6.2 Risk Mitigation & Capacity Building

In planning for a shift to local prime contracting, there are several approaches USAID can take to mitigate risk and build capacity within the local contracting industry.

The single most important risk mitigation element is the level of project oversight provided by USAID’s CMC. As was previously discussed in detail, Black & Veatch, as USAID’s CMC for construction projects under INP II, has been tasked with establishing and implementing rigorous inspection, testing, and quality control processes and procedures. In a future shift to local contracting, USAID may want to review both the contractual task requirements and the

implementation of those tasks around the provision of this oversight to assess completeness, uphold quality standards, and backfill project responsibilities, if needed, with additional tasks.

On the local contractor capacity building side, the priority needs are summarized in the following table, and then expanded into further detail below.

Table 5: Capacity Building Needs

PRIORITY	SUGGESTED ACTION	PARTIES	TIMELINE
1	Increase understanding of USAID-specific construction management practices among local contractors.	CMC / Contractors	2-4 months
2	Increase technical capabilities of local contractors.	CMC / Contractors	4-6 months
3	Revise RFTOP language regarding contractor selection criteria and small business requirements.	USAID / CMC	1-2 months
4	Put in place a small contractors' development/mentoring program.	CMC / Contractors	3-12+ months
5	Strengthen the PCU as an organization.	CMC	4-6 months

Very important will be helping local contractors thoroughly understand the role of the CMC and what is required on their part to be compliant with and successful in delivering USAID construction projects. Based on interviewee suggestions, USAID may want to task Black & Veatch with developing and delivering a "Managing USAID Construction Projects" training program around the specifics of submittal preparation, invoicing, equipment procurement, inspection and testing, warranty period, and other integral project delivery elements.

Likewise, USAID should consider a capacity building program to raise the level of technical capabilities of local contractors in key quality assurance areas through its CMC. It became apparent from interviews that local contractors did not possess a keen understanding of standard "leading practices" for their respective classifications. For example, contractors needed to be educated on the proper use of the dozer attachments with respect to the cut/fill and grading phases. Also, one of the U.S. contractors had conducted a field trip to the local asphalt plant to assist local contractors in understanding how to determine a proper mixture ratio. In general, construction in developing countries can be categorized as "operational," whereby the contractors are able to construct facilities and civil works, but often lack the technical understanding to truly elevate their projects – separating a good project from a great one. USAID should consider tasking Black & Veatch with conducting an initial training needs assessment and then developing a broad training program to fill the technical gaps.

Both of these programs could be delivered in collaboration with the PCU. In fact, this type of partnership may increase the interest and participation of local contractors. Additionally, USAID may want to consider strengthening the PCU itself as the organizing entity for the local contractor industry. Areas to consider might include: a review of its classification process and criteria, which were established almost two decades ago and often determines which projects contractors are permitted to bid on; an assessment of its services delivered to members to identify and develop enhanced revenue-generating activities (the organization's president is an unpaid position); and guidance on networking events, training, and certification programs the PCU can sponsor to directly enhance local contractor capabilities and opportunities.

In anticipation of local contractor prime bids, USAID will need to look carefully at its selection criteria, placing greater emphasis on technical capability and past performance. It will be critical

that USAID determine an effective strategy for verifying successful past performance, as the assessment team learned that being ranked a Class 1 contractor does not necessarily ensure good performance.

While the local contractor market exceeds 400 registered companies, only 16 Roads and 32 Water & Sewer contractors are classified as Class 1, 1A, or 1B. Capacity building for current and aspiring Class 1 local contractors is critical to expanding the pool of suitably qualified local contractors. USAID may want to consider putting in place a Small Contractors Development Program, a mentoring program implemented in many cities across the United States, designed to help smaller businesses improve their ability to bid on increasingly sophisticated projects. Additionally, USAID/WBG may consider segmenting projects into smaller pieces so that Class 2, 3, 4 and 5 contractors have the opportunity to participate and develop their capabilities. This approach could be combined with building small contractor utilization requirements into RFTOPs. Both of these actions could happen without delay, with the upcoming INP II RFTOPs under U.S. contractor primes, in anticipation of a future need for a greater number of qualified local contractors.

7.0 Conclusions and Recommendations

The key conclusions from this assessment are:

1. The terms “performance bond” and “performance guaranty” are used interchangeably in the marketplace, although they are two entirely different mechanisms for owner protection against contractor nonperformance. This is a source of periodic confusion in interpreting FAR and as such should be reviewed carefully.
2. The FAR explicitly identifies the use of performance and payment bonds, but gives the contracting officer latitude to waive this requirement for construction services in foreign countries so long as the U.S. Government is adequately protected.
3. In addition to current risk mitigation strategies, the current guaranty levels for performance (10%) and maintenance (5%) guaranties appear to provide financial protection for the U.S. Government against contractor nonperformance.
4. In addition to the use of guaranties, USAID employs three key elements in managing risk of non- or inadequate contractor performance:
 - a. The CMC testing, inspection, and quality control oversight role;
 - b. The structure of the payment terms; and
 - c. The availability of Day Works funding to cover unforeseen circumstances.

The assessment findings are that these are more important and effective measures to obtain satisfactory contractor performance than the use of guaranties.

5. The current guaranty levels are consistent with established local and international practice. Because guaranties are a standard requirement for construction projects in the West Bank, they are readily available to both U.S. and local contractors in the local banking sector. Banks may increase cash collateral requirements with riskier contractors.
6. There are hundreds of local contractors registered with and classified by the Palestinian Contractors Union: 16 are grade 1 (the highest) in Roads projects, and 32 are grade 1 in Water & Sewer projects. Most or all grade 1 contractors likely have the capacity to prime USAID construction projects smaller than \$2 million. It is estimated there are only 3-5 local contractors with the capacity to prime projects larger than \$5 million.

The key recommendations are:

1. Continue to uphold the performance and maintenance guaranty levels at 10% and 5%, respectively.
2. Clarify the upcoming RFTOP language to remove any confusion about whether surety bonds are being requested.
3. Continue to ensure contractors are paid no more than 4% advance/mobilization payment.
4. Continue to include a Day Works line item to provide contractors’ flexibility to address unforeseen circumstances.
5. Continue to employ a CMC to provide rigorous inspection, testing, and quality control throughout the construction lifecycle, but particularly prior to payment. USAID should review oversight processes and procedures in place to confirm sufficient rigor around quality control.
6. Review and conduct a gap assessment around current warranty period practices to strengthen and structure the process, and then add language to future RFTOPs that clarify warranty period expectations and procedures.
7. In preparation for a shift to local prime contractors, conduct a broad local contractor capacity building program that includes quality assurance, technical, management and USAID-specific contractor training, PCU strengthening, certification programs, etc.
8. Consider employing a small contractor requirement in future RFTOPs and other mechanisms to continue to develop and broaden the sector.

8.0 Appendix A: USAID Bonding Requirements SOW

Background

USAID/West Bank Gaza funds infrastructure-related construction projects in the West Bank. USG regulations require a performance bond for such activities to ensure completion of contract requirements in the event a contractor defaults. It specifies the performance bond should be 100% of the contract price unless the Contracting Officer determines that is not in the best interest of the U.S. Government.

Approximately 6-7 years ago, the Mission had an assessment done regarding recommended bonding requirements, and as a result, the Mission established thresholds of 10% for performance bonds and 5% for maintenance bonds. USAID seeks an updated assessment of recommended bonding thresholds, taking into account the current West Bank market, banking requirements, costs for bonding, risk, different types of infrastructure projects, and considerations for both U.S. and local prime contractors.

Tasks and Deliverables

The Contractor will complete the following tasks:

- Gather and analyze data on USAID's past performance in West Bank construction projects, including:
 - o Quantity, value, and type of projects
 - o Performance and maintenance bonding use, percentages, costs, and default rates
- Assess bond availability for U.S. and local prime contractors, including survey, interviews, and research on:
 - o Local and international surety company/financial institution costs, requirements, and procedures
 - o Capabilities of potential local prime contractors relative to bonding requirements
- Conduct desk research to review current FAR, AIDAR and other applicable U.S. Government policy to clarify requirements and ensure ongoing practices and future recommendations are compliant
- Assess the appropriate bonding level sufficient to protect the USG.

The Contractor will submit the following deliverables:

1. An assessment of bonding requirements relative to the current West Bank market, including recommendations and rationale for performance and maintenance bonding thresholds.
2. Access to and availability of bonding to local and US firms, respectively, in the local Palestinian Banks and regional banks. How easy or difficult it is and what is the maximum value of bonding for the top four major banks in the WBG and range of cost for bonds by sector.
3. An analysis of bonding requirements relative to future shift to local prime contracting, including challenges, gaps, risks and recommendations.

9.0 Appendix B: Terminology

Unless otherwise noted all definitions were extracted from "The Dictionary of Architecture and Construction" 2006, The McGraw-Hill Companies.

Bonding Capacity – 1) An indication of a contractor's credit rating. 2) The maximum amount of money a bonding company will extend in contract bonds to a building contractor.

Contractor Default – A substantive failure to fulfill a material obligation under a building contract.

Liquidated Damages - A sum specified in a contract whereby damages in the event of breach are to be determined. In a construction contract, liquidated damages usually are specified as a fixed sum per day for failure to complete the work, 1 within a specified time. If set at a level consistent with a reasonable forecast of actual harm to the owner, liquidated damage clauses will be upheld and will preclude use of standards for computation of damages that would otherwise be imposed by law. If the amount prescribed for liquidated damages is unreasonably high, the provision will be denominated an illegal "penalty" by the courts and held invalid; in such case, damages will be determined pursuant to otherwise applicable rules of law.

Maintenance Bond / Warranty Bond - A bond that provides a guarantee to an owner that the contractor will rectify defects in workmanship or materials reported to the contractor within a specified time period following final acceptance of the work under contract.

Maintenance Guaranty – A term used by USAID for an On-Demand Bond in the form of a bank guaranty that guaranties payment of a penal amount to the owner as protection against contractor nonperformance during the warranty phase. *Source: USAID INP II/Black & Veatch Team*

Obligee – Typically the project owner, in this case the U.S. government, to whom the surety or bank would pay out the value of the bond or guarantee. *Source: Ruwanpura, Ariartnam and Stenhouse*

On-Demand Bond – An unconditional bond, bank guarantee or letter of credit that can be cashed in at any time by the owner or obligee. *Source: Ruwanpura, Ariartnam and Stenhouse*

Payment Bond – A form of security purchased from an insurance company, which provides a guarantee that the contractor will pay the complete costs of labor, materials, and other services related to the project for which he is responsible under the contract for construction.

Performance Bond – A bond of the contractor in which a surety guarantees to the owner that the work will be performed in accordance with the contract documents; frequently combined with the labor and material payment bond; except where prohibited by statute.

Performance Guaranty – A term used by USAID for an On-Demand Bond in the form of a bank guaranty that guaranties payment of a penal amount to the owner as protection against contractor nonperformance during the construction phase. *Source: USAID INP II/Black & Veatch Team*

Surety Bond – A legal instrument under which one party agrees to answer to another party for the debt, default, or failure to perform of a third party.

10.0 Appendix C: Interviewees & Interview Questions

Name	Title	Company	Email	Phone
BANKING INSTITUTIONS				
Sawsan Lutfi Jarrar	Corporate Manager	Bank of Palestine	sjarrar@bankofpalestine.com	+970 (0)2 2985921
Fadi Sousou	Operations Department	Arab Bank	---	+970 (0)2 2978206
Raed Sameh Jarallah	Credit Officer	Arab Bank	raedjr@arabbank.ps	+970 (0)59 8937527
Walid Atallah Kamal Wahbeh	Assistant Manager	Arab Bank	walid.wabeh@arabbank.ps	+970 (0)59 9795928
U.S. CONTRACTORS				
Hani Hamawi	General Manager	APCO/ArCon	hhamawi@apcoarcon.com	+972 (0)2 2413555
Naim El Mani	Chief of Party / Chief Engineer	Int'l Relief & Development (IRD)	nmani@ird-ps.org	+972 (0)2 2950205 /6/7
Osama Husien	Finance Manager	Int'l Relief & Development (IRD)	ohusien@ird-ps.org	+972 (0)2 2950206 /7
Areej Shbeeb Anabtawi	Compliance, Contracts, & Procurement Manager	Int'l Relief & Development (IRD)	aanabtawi@ird-ps.org	+972 (0)2 2950206 /7
PALESTINIAN CONTRACTORS				
Eng. Adel Odah	Chairman	Palestinian Contractors Union	pcuquick@palnet.com	+970 (0)2 2961330 /1
Mohammad Fares	General Manager	Technical Group	info@technicalgrp.com	+970 (0)2 2400296
Saleem Tafesh	Project Manager	Saqqa & Khoudary Co Ltd (SAK)	saleem@sak1.com	+970 (0)59 9601870
Mahmoud Jaradat	Operations Manager	Brothers Contracting Co	Jaradat_mah@yahoo.com	+970 (0)56 9950976
Shaeen Hanamy	Owner	Brothers Contracting Co	---	+970 (0)9 2393404
GOVERNMENTAL AGENCIES				
Eng. Bassam F. Jaber	Director General	Palestinian National Authority - Ministry of Public Works & Housing - Central Tendering Department	bfjaber@hotmail.com	+972 (0)2 296606 /7

Banking Institution Key Interview Questions

1. Describe the process for evaluating contractors' financial guaranty viability. Describe any differences between the evaluations of local versus US contractors, if any.
2. How are contractors guaranty limits determined? What would trigger a change in the contractors' available limits?
3. What about the banks limits? How much of the bank's portfolio would they be willing to expend on construction project guaranties?
4. First, verify guaranty standard of 10% / 5% as stated by PCU. By what percentage would the contractor fees (1-2%) change if the required guaranty went up to 20% or down to 5%
5. Verify the loan burden requirements (fees, withholding, loan rates if do not have money within accounts). How easy or difficult is it for local contractors to obtain these guaranties? How often are local contractors denied such that they could not apply for a project?
 - a. What are the major challenges/gaps from the contractors to service their request

- b. What are the major challenges/hurdles within the bank to approve the guaranties
6. Review the prime / subcontracting bonding method. If the prime contractor aggregates the sum of the subcontractor guaranties, how much extra is required by the prime contractor? Explain the difference in fees if guarantying the entire project with prime versus using multiple guaranties through subcontractors.
7. What would make a difference for banks to more easily grant guaranties and of greater size? Are there capabilities that could be developed or support that could be provided?
8. Do you know of any cases where guaranties were called in? If so, what were the circumstances? What were/would be the ramifications of this?
9. Verify there are no surety companies in the region who have bonding capabilities.

U.S. Prime Contractor Key Interview Questions

1. Are guaranties only secured through local / regional banks, or have (and are able to) work with international banks? If only locally, what are the reasons?
2. USAID recently doubled the bank guaranty from 10% to 20% in the latest IQC. What are the impacts of this both to the US contractors and local subcontractors?
3. What are the fees associated with providing the typical 10% / 5% bonding requirement. How would these fees change if the required amount was increased / decreased?
4. Have contractors worked in other countries and what have been the guaranty requirements? Are they similar to here both in type (bank letter) and quantity (10%)?
5. Are there any sureties available regionally or not common practice? Would a US surety bond a US company for a foreign project, or does the location of the project dictate?
6. Identify the sub-contractors they work with. What is the selection process? Are these pre-selected or competitively bid? Do they know the major local subcontractors?
7. What have been the primary challenges in working with the local subcontractors? What capabilities would help improve these relationships?
8. How well have the subcontractors been able to manage quality? Are they able to recognize, and pre-emptively address, poor workmanship or does it seem like the US primes and CMC must constantly notify the subcontractors of deficient work?
9. Know of any subcontractors whose bank guaranties have been called upon? If so, details
10. Have been on any TOs where a Variation Order was issued for greater than 10% (and the guaranty needed to be increased)?
11. Can give an idea of Day Works ranges? \$100K - \$1M? Is there an average ratio (\$100K on \$1M contract and \$1M on \$10M contract)?

Local Contractor Key Interview Questions

1. For USAID construction projects, what is the typical cost range (original contract value) of projects by type (school, road, & water), and the largest value by type for Palestinian contractors in general?
2. Besides USAID, who is funding these projects? Palestinian Authority? Other donor agencies?
 - a. If other projects, re-ask question about typical cost range by agency/authority.
3. What other sureties do projects in Palestine typically require? Do all (public & private) projects require bank guaranties or do specific project types / agencies only implement certain procedures?
 - a. i.e. USAID uses guaranty, but do private projects hold retainage more often or withhold a set percentage, 5-10%, until the project has been successfully closed out?

4. Relative to the total contract value, what percentage guaranty does the funding agency typically require? Does it vary by agency?
5. Does local law require bank guaranties for construction projects?
 - a. If not required, what does local law dictate as means of protection against default?
6. To what extent do guaranty requirements limit contractors' ability to compete for projects?
 - a. Acquire understanding of: size of company, length of history, annual revenue, or anything else negatively impacting a contractor's ability to acquire guaranties
7. Who are the local and regional banks with whom local contractors obtain letters of guaranty? Bank of Palestine? Arab Bank? Cairo-Amman Bank? Arab Islamic Bank? Jordan National Bank? HSBC? Bank of Jordan? Jordan Gulf Bank? Union Investment Bank?
 - a. What are the reasons for working with specific banks? i.e. ease of credit attainment, costs of credit, business relationships, etc
8. How easy or difficult is it to obtain these guaranties for local contractors? How typical would it be for a local contractor to be denied a guaranty such that could not apply for a project?
 - a. What is the procedure for obtaining letters of guaranty?
 - b. What are the major challenges/gaps?
9. Since guaranties tie up contractors' credit lines, is there a limited amount of projects they are able to take on because banks will not provide guaranties after a certain amount is already under contract (issue of work load or credit limit or both)?
10. How much do guaranties typically cost? Across the range, what factors/criteria do banks consider when increasing or decreasing the cost?
11. What would make a difference for local contractors to more easily obtain guaranties and of greater size? Are there certain capabilities or support that could be developed or provided?
12. Do you know of any cases where guaranties were called in? If so, what were the circumstances? What were/would be the ramifications of this?
 - a. If guaranties have not been called, ask for the "worst case scenario" they have heard of between a contractor & owner. Has anything ever gone to court? Did the contractor settle for a negotiated amount less than what was owed? Have contractors stopped work progress from owner's failing to make payments?
13. Are there any surety companies in the region who provide performance bonds?

11.0 Appendix D: Relevant Policy Excerpts

11.1 FAR Excerpts

Part 28 – Bonds and Insurance

28.001 Definitions

“Bidder” means any entity that is responding or has responded to a solicitation, including an offeror under a negotiated acquisition. “Bond” means a written instrument executed by a bidder or contractor (the “principal”), and a second party (the “surety” or “sureties”) (except as provided in 28.204), to assure fulfillment of the principal’s obligations to a third party (the “obligee” or “Government”), identified in the bond. If the principal’s obligations are not met, the bond assures payment, to the extent stipulated, of any loss sustained by the obligee. The types of bonds and related documents are as follows:

- (1) An advance payment bond secures fulfillment of the contractor’s obligations under an advance payment provision.
- (2) An annual bid bond is a single bond furnished by a bidder, in lieu of separate bonds, which secure all bids (on other than construction contracts) requiring bonds submitted during a specific Government fiscal year.
- (3) An annual performance bond is a single bond furnished by a contractor, in lieu of separate performance bonds, to secure fulfillment of the contractor’s obligations under contracts (other than construction contracts) requiring bonds entered into during a specific Government fiscal year.
- (4) A patent infringement bond secures fulfillment of the contractor’s obligations under a patent provision.
- (5) A payment bond assures payments as required by law to all persons supplying labor or material in the prosecution of the work provided for in the contract.
- (6) A performance bond secures performance and fulfillment of the contractor’s obligations under the contract.

“Penal sum” or “penal amount” means the amount of money specified in a bond (or a percentage of the bid price in a bid bond) as the maximum payment for which the surety is obligated or the amount of security required to be pledged to the Government in lieu of a corporate or individual surety for the bond.

Subpart 28.1 – Bonds and Other Financial Protections

28.102 Performance and payment bonds and alternative payment protections for construction contracts.

28.102-1 General.

- (a) The Miller Act (40 U.S.C. 3131 *et seq.*) requires performance and payment bonds for any construction contract exceeding \$150,000, except that this requirement may be waived—
- (1) By the contracting officer for as much of the work as is to be performed in a foreign country upon finding that it is impracticable for the contractor to furnish such bond; or
 - (2) As otherwise authorized by the Miller Act or other law.

28.102-2 Amount required.

- (b) *Contracts exceeding \$150,000 (Miller Act)* —
- (1) *Performance bonds.* Unless the contracting officer determines that a lesser amount is adequate for the protection of the Government, the penal amount of performance bonds must equal—
 - (i) 100 percent of the original contract price;

- (ii) If the contract price increases, an additional amount equal to 100 percent of the increase.
- (d) *Securing additional payment protection.* If the contract price increases, the Government must secure any needed additional protection by directing the contractor to—
 - (1) Increase the penal sum of the existing bond;
 - (2) Obtain an additional bond; or
 - (3) Furnish additional alternative payment protection.
- (e) *Reducing amounts.* The contracting officer may reduce the amount of security to support a bond, subject to the conditions of 28.203-5(c) or 28.204(b).

Subpart 28.2 – Sureties and Other Security for Bonds

28.201 Requirements for security.

- (a) Agencies shall obtain adequate security for bonds (including coinsurance and reinsurance agreements) required or used with a contract for supplies or services (including construction). Acceptable forms of security include—
 - (1) Corporate or individual sureties; or
 - (2) Any of the types of security authorized in lieu of sureties by 28.204.
- (b) Solicitations shall not preclude offerors from using the types of surety or other security permitted by this subpart, unless prohibited by law or regulation.

28.202 Acceptability of corporate sureties.

- (b) For contracts performed in a foreign country, sureties not appearing on Treasury Department Circular 570 are acceptable if the contracting officer determines that it is impracticable for the contractor to use Treasury listed sureties.

28.203-5 Release of lien.

- (a) After consultation with legal counsel, the contracting officer shall release the security interest on the individual surety's assets using the Optional Form 90, Release of Lien on Real Property, or Optional Form 91, Release of Personal Property from Escrow, or a similar release as soon as possible consistent with the conditions in paragraphs (a)(1) and (2) of this subsection. A surety's assets pledged in support of a payment bond may be released to a subcontractor or supplier upon Government receipt of a Federal district court judgment, or a sworn statement by the subcontractor or supplier that the claim is correct along with a notarized authorization of the release by the surety stating that it approves of such release.

(1) *Contracts subject to the Miller Act.* The security interest shall be maintained for the later of —

- (i) 1 year following final payment;
- (ii) Until completion of any warranty period (applicable only to performance bonds); or
- (iii) Pending resolution of all claims filed against the payment bond during the 1-year period following final payment.

(2) *Contracts subject to alternative payment protection (28.102-1(b)(1)).* The security interest shall be maintained for the full contract performance period plus one year.

(3) *Other contracts not subject to the Miller Act.* The security interest shall be maintained for 90 days following final payment or until completion of any warranty period (applicable only to performance bonds), whichever is later.

- (c) Upon written request by the individual surety, the contracting officer may release a portion of the security interest on the individual surety's assets based upon substantial performance of the contractor's obligations under its performance bond. Release of the security interest in support of a payment bond must comply with the paragraphs (a)(1) through (3) of this subsection. In making this determination, the contracting officer will give consideration as to

whether the unreleased portion of the lien is sufficient to cover the remaining contract obligations, including payments to subcontractors and other potential liabilities. The individual surety shall, as a condition of the partial release, furnish an affidavit agreeing that the release of such assets does not relieve the individual surety of its obligations under the bond(s)

28.204 Alternatives in lieu of corporate or individual sureties.

(a) Any person required to furnish a bond to the Government may furnish any of the types of security listed in 28.204-1 through 28.204-3 instead of a corporate or individual surety for the bond. When any of those types of security are deposited, a statement shall be incorporated in the bond form pledging the security in lieu of execution of the bond form by corporate or individual sureties. The contractor shall execute the bond forms as the principal. Agencies shall establish safeguards to protect against loss of the security and shall return the security or its equivalent to the contractor when the bond obligation has ceased.

(b) Upon written request by any contractor securing a performance or payment bond by any of the types of security listed in 28.204-1 through 28.204-3, the contracting officer may release a portion of the security only when the conditions allowing the partial release of lien in 28.203-5(c) are met. The contractor shall, as a condition of the partial release, furnish an affidavit agreeing that the release of such security does not relieve the contractor of its obligations under the bond(s).

(c) The contractor may satisfy a requirement for bond security by furnishing a combination of the types of security listed in 28.204-1 through 28.204-3 or a combination of bonds supported by these types of security and additional surety bonds under 28.202 or 28.203. During the period for which a bond supported by security is required, the contractor may substitute one type of security listed in 28.204-1 through 28.204-3 for another, or may substitute, in whole or combination, additional surety bonds under 28.202 or 28.203.

11.2 Miller Act Excerpts

40 USC § 3131 Bonds of contractors of public buildings or works

(a) Definition.— In this subchapter, the term “contractor” means a person awarded a contract described in subsection (b).

(b) Type of Bonds Required.— Before any contract of more than \$100,000 is awarded for the construction, alteration, or repair of any public building or public work of the Federal Government, a person must furnish to the Government the following bonds, which become binding when the contract is awarded:

(1) Performance bond.— A performance bond with a surety satisfactory to the officer awarding the contract, and in an amount the officer considers adequate, for the protection of the Government.

(2) Payment bond.— A payment bond with a surety satisfactory to the officer for the protection of all persons supplying labor and material in carrying out the work provided for in the contract for the use of each person. The amount of the payment bond shall equal the total amount payable by the terms of the contract unless the officer awarding the contract determines, in a writing supported by specific findings, that a payment bond in that amount is impractical, in which case the contracting officer shall set the amount of the payment bond. The amount of the payment bond shall not be less than the amount of the performance bond.

(d) Waiver of Bonds for Contracts Performed in Foreign Countries.— A contracting officer may waive the requirement of a performance bond and payment bond for work under a contract that is to be performed in a foreign country if the officer finds that it is impracticable for the contractor to furnish the bonds.

(e) Authority To Require Additional Bonds.— This section does not limit the authority of a contracting officer to require a performance bond or other security in addition to those, or in cases other than the cases, specified in subsection (b).

40 USC § 3132 Alternatives to payment bonds provided by Federal Acquisition Regulation

(a) In General.— The Federal Acquisition Regulation shall provide alternatives to payment bonds as payment protections for suppliers of labor and materials under contracts referred to in section 3131 (a) of this title that are more than \$25,000 and not more than \$100,000.

(b) Responsibilities of Contracting Officer.— The contracting officer for a contract shall—

- (1)** select, from among the payment protections provided for in the Federal Acquisition Regulation pursuant to subsection (a), one or more payment protections which the offeror awarded the contract is to submit to the Federal Government for the protection of suppliers of labor and materials for the contract; and
- (2)** specify in the solicitation of offers for the contract the payment protections selected.

12.0 Appendix E: USAID/WBG Task Orders Currently Under Maintenance Guaranty

Infrastructure Needs Program - Monitoring and Evaluation

Project Information		Road / Pipe Lengths			Project Costs			Project Schedule			
Task Order / Design Contract	Project Name	Project - KM (Planned)	Project - KM (Actual)	TO - Total KM (Actual)	Contract Cost CMC: w/ Day Work	CMC: Day Work REMAINING	Task Order / Design Cost	Contract Period	Actual Period	Variance	Completion (Actual)
(Signed TO / Signed Contract)	(Signed TO / Signed Contract / VO)	(NTP/ Original BOQ)	(FAC)	(FAC)	(VO Log / Finance / Monthly Report / TO)	(VO Log / Finance / Monthly Report)	(VO Log / Finance / Monthly Report)	(Last VO Signed)	(FAC)		(FAC / Monthly Report)

MWH INP Projects - TO1 (FY-2009: October 1, 2008 - September 30, 2009)

Roads											
1	Wadi Al Quf - Wadi Al Safa - Halhul Road	5.10	9.50	9.50	\$ 5,212,756.15	\$ -	\$ 5,212,756.15	326	329	-1%	September 14, 2009
2	Tarqumia Crossing Road	7.00	12.50	12.50	\$ 7,602,372.40	\$ -	\$ 7,254,125.75	271	318	-17%	September 3, 2009
3	Arabeh intersection - Ya'bad Road	6.10	8.40	12.40	\$ 6,441,676.33	\$ -	\$ 9,197,010.55	297	296	0%	August 13, 2009
	Tulkarem Western Entrance Road	2.40	4.00		\$ 2,755,334.22	\$ 289.18		278	233	16%	June 11, 2009
4	Bureen - Madama - Asira Al Quiblyia - Urif Road	9.10	14.00	14.00	\$ 5,229,841.14	\$ -	\$ 5,229,841.14	297	297	0%	August 13, 2009
5	Al Dahrieh - Al Ramadeen Road	5.00	8.20	8.20	\$ 3,494,691.30	\$ -	\$ 3,494,691.30	266	245	8%	June 22, 2009
6	Badhan Main Road (Segment 1)	0.92	1.40	6.60	\$ 932,885.00	\$ -	\$ 3,381,006.25	194	192	1%	April 30, 2009
	Yasid - Jaba'a Road (Segment 5)	4.60	5.20		\$ 2,448,121.25	\$ -		280	234	16%	June 11, 2009
11	Jericho Northern Entrance Road	2.70	2.91	10.13	\$ 1,961,862.49	\$ -	\$ 6,870,103.76	221	219	1%	March 11, 2010
	Jericho Southern Entrance Road	1.90	2.15		\$ 2,579,666.87	\$ -		240	233	3%	March 25, 2010
	Al Awja- Jericho Road (Segment A)	3.50	5.07		\$ 2,328,574.40	\$ -		244	219	10%	March 11, 2010
12	Silwad - Deir Jareer Road (Segment 2)	3.30	4.15	7.60	\$ 1,651,929.56	\$ -	\$ 3,049,867.01	223	203	9%	February 23, 2010
	Al Taybeh - Rimmonim Checkpoint Road (Segment 1)	3.16	3.45		\$ 1,397,937.45	\$ -		200	203	-2%	February 23, 2010
Design - Roads		-	-	-	\$ -	\$ -	\$ -	0.00	0.00		
CMC - Roads		54.78	80.93	80.93	\$ 44,037,648.56	\$ 289.18	\$ 43,689,401.91	3,337.00	3,221.00	3.00	
Total - Roads		54.78	80.93	80.93	\$ 44,037,648.56	\$ 289.18	\$ 43,689,401.91	3,337.00	3,221.00	13.00	

MWH INP Projects - TO1 & TO2 (FY-2010: October 1, 2009 - September 30, 2010)

Roads											
13	Abu Dis Internal Roads	4.70	6.20	6.20	\$ 3,529,754.19	\$ -	\$ 3,529,754.19	283	275	3%	July 22, 2010
14	Badhan - Taluza Road (Segment 2)	1.70	1.89	7.49	\$ 998,806.93	\$ -	\$ 3,652,140.52	170	172	-1%	April 12, 2010
	B- Asira Al Shamaliya - Yasid Road	5.40	5.60		\$ 2,653,333.59	\$ -		274	271	1%	July 20, 2010
15	Fandaqumia - Bazzarya Road	4.30	5.00	5.00	\$ 4,167,253.72	\$ -	\$ 4,167,253.72	316	315	0%	September 2, 2010
16	Ezzarya Eastern Entrance Road	3.70	3.51	3.51	\$ 5,507,911.75	\$ -	\$ 5,507,911.75	289	286	1%	July 28, 2010
17	Qabatya - Zababida - Al Kufeir - Tubas Road	13.00	13.10	13.10	\$ 6,820,217.50	\$ -	\$ 6,820,217.50	315	314	0%	September 8, 2010
18	Al Awja - Jericho Road (Segment B&C)	10.50	19.00	19.00	\$ 6,270,435.11	\$ -	\$ 6,270,435.11	338	338	0%	September 23, 2010
19	A- Aqabet Jaber Refugee Camp Internal Roads & Water Pipes Network	3.00	3.37	11.48	\$ 532,485.55	\$ 16,759.10	\$ 5,026,355.55	149	146	2%	March 25, 2010
	B- Zbeidat Village Internal Roads	1.30	1.11		\$ 274,343.00	\$ -		133	132	1%	March 11, 2010
	C- Ein Shibli - Al Hamra Checkpoint Road (Segment A)	6.30	7.00		\$ 4,219,527.00	\$ -		304	277	9%	August 3, 2010
20	Talita - DCO - Al Jamiya - Al Arabya Road	2.20	2.65	6.93	\$ 1,710,160.74	\$ -	\$ 3,413,919.56	256	264	-3%	July 28, 2010
	HWY 60 - Sair - Tekoa Road (Segment A)	3.00	4.28		\$ 1,703,758.82	\$ -		256	264	-3%	July 28, 2010
21	Sinjil - Julijlia Road	2.95	3.59	3.59	\$ 1,061,222.50	\$ -	\$ 1,061,222.50	201	199	1%	May 24, 2010
22	Bazzarya - Deir Sharaf Road	8.30	9.50	9.50	\$ 6,744,596.50	\$ -	\$ 6,744,596.50	301	308	-2%	August 19, 2010
23	Beit Iba - Qusin - Beit Wazan Road	4.80	5.75	5.75	\$ 2,492,067.00	\$ -	\$ 2,492,067.00	239	238	0%	July 13, 2010
32	Hebron Industrial Zone Area Roads	6.10	28.05	28.05	\$ 7,790,396.20	\$ -	\$ 7,790,396.20	447	447	0%	February 28, 2011
34	Birzeit - Al Manarah Road	11.50	13.11	13.11	\$ 3,663,399.65	\$ -	\$ 3,663,399.65	176	173	2%	May 24, 2010
35	Milling and Overlay of Yatta Main Road	3.40	3.87	3.87	\$ 1,541,134.50	\$ -	\$ 1,541,134.50	176	172	2%	May 4, 2010

Infrastructure Needs Program - Monitoring and Evaluation

Project Information		Road / Pipe Lengths			Project Costs			Project Schedule			
Task Order / Design Contract	Project Name	Project - KM (Planned)	Project - KM (Actual)	TO - Total KM (Actual)	Contract Cost CMC: w/ Day Work	CMC: Day Work REMAINING	Task Order / Design Cost	Contract Period	Actual Period	Variance	Completion (Actual)
36	Milling and Overlay of Ras Al Jourah -	1.00	1.10	1.10	\$ 1,129,408.50	\$ -	\$ 1,129,408.50	243	251	-3%	July 22, 2010
37	Milling and Overlay of Wadi Al Nar Road	3.20	1.00	37.01	\$ 1,620,552.50	\$ -	\$ 9,640,439.75	414	414	0%	January 26, 2011
	Milling and Overlay of Wadi Al Nar Road (Segment III & IV)	1.50	1.20		\$ 1,121,265.83	\$ -		128	132	-3%	April 18, 2011
	Milling and Resurfacing Works of Kharas and Tarqumia Internal Roads	11.60	9.50		\$ 2,123,547.07	\$ -		237	237	0%	May 2, 2011
	Milling and Resurfacing Works of Dura, Freijat and Al Dahria Internal Roads	15.30	14.16		\$ 2,625,099.49	\$ -		237	237	0%	May 2, 2011
	Milling and Resurfacing Works of Halhul and Beit Ummar Internal Roads	7.80	9.80		\$ 1,951,217.59	\$ -		265	265	0%	May 30, 2011
	Milling and Resurfacing Works of Yatta and Sinjir Reservoir Roads	1.22	1.35		\$ 198,757.27	\$ -		60	50	17%	January 13, 2011
38	Milling and Overlay of Jericho Southern Entrance Road (Segment B)	2.40	2.60	21.37	\$ 1,072,620.68	\$ -	\$ 9,910,601.35	180	176	2%	June 2, 2010
	Milling and Overlay of Beituniya Eastern Entrance Road	6.00	1.84		\$ 1,030,701.49	\$ -		166	155	7%	January 20, 2011
	Qalandia - Jaba' Road	2.40	2.60		\$ 2,741,995.18	\$ -		326	328	-1%	July 12, 2011
	Dier Debwan - Ramoun - Al Taybeh Road	3.80	6.35		\$ 2,388,543.08	\$ -		239	239	0%	April 14, 2011
	Al Jalazoun - Ein Sinya & Jifna - Beirzeit Roads	8.40	5.29		\$ 1,689,181.66	\$ -		180	106	41%	December 2, 2010
	Aboud Main Road	2.00	2.68		\$ 987,559.26	\$ -		150	148	1%	January 13, 2011
41	Milling and Overlay of Howarah - Ein Abus Road	2.00	1.57	1.57	\$ 1,360,221.27	\$ 58,412.06	\$ 1,360,221.27	200	178	11%	September 2, 2010
Design - Roads		-	-	-	\$ -	\$ -	\$ -	0.00	0.00		
CMC - Roads		164.77	197.61	197.61	\$ 83,721,475.12	\$ 75,171.16	\$ 83,721,475.12	7,648.00	7,507.00	7.00	
Total - Roads		164.77	197.61	197.61	\$ 83,721,475.12	\$ 75,171.16	\$ 83,721,475.12	7,648.00	7,507.00	32.00	
Water											
24	West Hebron Water Supply Project - Main Pipe Line and Deir Samit Reservoir	12.49	13.00	13.00	\$ 4,220,806.05	\$ -	\$ 4,220,806.05	484	501	-4%	April 17, 2011
25	West Hebron Water Supply Project - Distribution Piping for Idna	15.35	19.59	55.35	\$ 4,690,066.75	\$ 468.22	\$ 4,690,066.75	405	405	0%	December 13, 2010
	West Hebron Water Supply Project - Distribution Piping for Deir Samit	34.90	35.76					405	405	0%	December 13, 2010
26	West Hebron Water Supply Project - Distribution Piping for Al Kom	9.90	12.05	47.26	\$ 4,652,581.86	\$ 2,921.87	\$ 4,652,581.86	386	386	0%	November 24, 2010
	West Hebron Water Supply Project - Distribution Piping for Beit Awwa	31.43	35.21					386	386	0%	November 24, 2010
27	Well Station Rehabilitation Project - IZZ 1	N/A	N/A	N/A	\$ 10,068,000.00	\$ 18,145.32	\$ 10,068,000.00	707	#VALUE!		On going
	Well Station Rehabilitation Project - IZZ 2	N/A	N/A	N/A						On going	
	Well Station Rehabilitation Project - IZZ 3	N/A	N/A	N/A						On going	
	Well Station Rehabilitation Project - JWC 4	N/A	N/A	N/A						On going	
28	Well Station Rehabilitation Project - PWA 3	N/A	N/A	N/A	\$ 9,788,000.00	\$ -	\$ 9,788,000.00	614	543	12%	May 5, 2011
	Well Station Rehabilitation Project - PWA 11	N/A	N/A	N/A							May 5, 2011

Infrastructure Needs Program - Monitoring and Evaluation											
Project Information		Road / Pipe Lengths			Project Costs			Project Schedule			
Task Order / Design Contract	Project Name	Project - KM (Planned)	Project - KM (Actual)	TO - Total KM (Actual)	Contract Cost CMC: w/ Day Work	CMC: Day Work REMAINING	Task Order / Design Cost	Contract Period	Actual Period	Variance	Completion (Actual)
	Well Station Rehabilitation Project - Hundaza	N/A	N/A	N/A							May 5, 2011
29	Well Station Rehabilitation Project - PWA 1	N/A	N/A	N/A	\$ 9,671,259.63	\$ -	\$ 9,671,259.63	586	536	9%	May 1, 2011
	Well Station Rehabilitation Project - Saer Booster Station	N/A	N/A	N/A							May 1, 2011
30	Water Reservoirs Project - Ein Sinya	1.93	1.92	N/A	\$ 7,066,942.17	\$ -	\$ 7,066,942.17	365	536	-47%	May 22, 2011
	Water Reservoirs Project - Al Lubban Al Sharqiyya	2.10	1.94	N/A				407	536	-32%	May 22, 2011
	Water Reservoirs Project - Dura-Sinjir	0.96	1.16	N/A				365	536	-47%	May 22, 2011
	Water Reservoirs Project - Yatta	2.04	1.97	N/A				485	536	-11%	May 22, 2011
Design - Water		-	-	-	\$ -	\$ -	\$ -	0.00	0.00		
CMC - Water		111.09	122.59	115.60	\$ 50,157,656.46	\$ 21,535.41	\$ 50,157,656.46	5,595.00	#VALUE!		
Total - Water		111.09	122.59	115.60	\$ 50,157,656.46	\$ 21,535.41	\$ 50,157,656.46	5,595.00	#VALUE!		
MWH INP Projects - TO1 & TO2 (FY-2011: October 1, 2010 - September 30, 2011)											
Roads											
48	HWY 60 - Burqeen - Kuf Qud - Kuferit Road	5.00	5.68	13.08	\$ 2,238,347.54	\$ -	\$ 6,975,617.00	238	239	0%	June 21, 2011
	Jenin - Al Jalameh Road	3.50	1.92		\$ 1,232,230.94	\$ -		196	196	0%	May 9, 2011
	Sanour - Maythaloun Road	1.40	1.60		\$ 964,130.71	\$ -		196	196	0%	May 9, 2011
	Tubas Southern - Nothern Entrances - Kfeirt - Aqqaba Road	3.37	3.88		\$ 2,540,907.81	\$ -		196	196	0%	May 9, 2011
49	Jayyus - Tulkarm Road	11.00	12.12	12.12	\$ 6,671,580.50	\$ 65,977.34	\$ 6,671,580.50	302	299	1%	August 1, 2011
50	Milling and Resurfacing of HWY 57 from Salem Village Intersection - Rujeib Village Intersection - Beit Dajan, Deir El Hatab & Salem Internal Roads	18.63	16.35	16.35	\$ 3,738,678.31	\$ -	\$ 7,088,783.39	247	247	0%	June 29, 2011
	Rehabilitation of Bethlehem Eastern Country Side Roads and Milling and Resurfacing of Roads in Bethlehem District	7.90	9.77	9.77	\$ 2,494,781.20	\$ -		241	241	0%	June 23, 2011
	Nuba Internal Roads	4.90	5.30	5.30	\$ 855,323.88	\$ -		192	192	0%	May 5, 2011
51	Rawabi City Roads	4.10	4.80	4.80	\$ 5,093,187.00	\$ 559,600.00	\$ 5,093,187.00	334	#VALUE!		On going
Design - Roads		-	-	-	\$ -	\$ -	\$ -	0.00	0.00		
CMC - Roads		59.80	61.41	61.41	\$ 25,829,167.89	\$ 625,577.34	\$ 25,829,167.89	2,142.00	#VALUE!	1.00	
Total - Roads		59.80	61.41	61.41	\$ 25,829,167.89	\$ 625,577.34	\$ 25,829,167.89	2,142.00	#VALUE!	8.00	
MWH INP Program - TO1 & TO2											
Design - Roads		-	-	-	\$ -	\$ -	\$ -	0.00	0.00		
CMC - Roads		279.35	339.95	339.95	\$ 153,588,291.57	\$ 701,037.68	\$ 153,240,044.92	13,127.00	#VALUE!	11.00	
Total - Roads		279.35	339.95	339.95	\$ 153,588,291.57	\$ 701,037.68	\$ 153,240,044.92	13,127.00	#VALUE!	53.00	
Design - Water		-	-	-	\$ -	\$ -	\$ -	0.00	0.00		
CMC - Water		111.09	122.59	115.60	\$ 50,157,656.46	\$ 21,535.41	\$ 50,157,656.46	5,595.00	#VALUE!		
Total - Water		111.09	122.59	115.60	\$ 50,157,656.46	\$ 21,535.41	\$ 50,157,656.46	5,595.00	#VALUE!		
Total		390.44	462.54	455.55	\$ 203,745,948.03	\$ 722,573.09	\$ 203,397,701.38	18,722.00	#VALUE!		5.00

13.0 Appendix F: Selected Literature

Works Cited	Summary / Relevance to USAID
Kangari, Roozbeh and Bakheet, Moataz. "Construction Surety Bonding." <i>Journal of Construction Engineering and Management</i> 127.3 (2001): 232-238. Print.	Identifies major factors used to evaluate the "bondability" of a contractor. The paper focuses on U.S. performance bonds, but it is useful to understand the type of scrutiny conducted on the contractor, which can inform capacity building for local contractors.
Deng, Xiaomei, Ding, Shizhao and Tian, Qian. "Reasons Underlying a Mandatory High Penalty Construction Contract Bonding System." <i>Journal of Construction Engineering and Management</i> 130.1 (2004): 67-74. Print.	Compares 'high penalty conditional bonds' (U.S. performance bonds) to 'low penalty unconditional bond' (international bank guaranties). The paper summarizes contract bonding practice by various countries, demonstrating that bank guaranties for 5-20% of contract are common. The authors, who are focused more on what bonding practices a market like China should adopt, conclude that a U.S. style bond is a good instrument for the public sector to adapt, but only if there is a large market and availability. It also describes the functionality of the bank guaranties in use internationally and which are similar to the West Bank condition.
Wise, Howard. "Bonding Construction Projects." <i>Journal of Commerce</i> 89. 94 (2000): 3. Web.	Discusses whether payment and performance bonds should be purchased on construction projects and concludes that for large projects, it may be required to assure payment on a default scenario. The author also points out that there are other effective risk management techniques above and beyond bonding. Article focuses on U.S. style bonds, but the general concepts are applicable for West Bank.
Barru, David J. "How to guarantee contractor performance on international construction projects: comparing surety bonds with bank guarantees and standby letters of credit." <i>The George Washington International Law Review</i> 37. 1 (2005): 51-108. Web.	This is a very relevant article comparing the merits and sufficiency of U.S. style bonds versus bank guaranties. In addition to defining the various terms, the author concludes that bank guaranties can be an effective and comparable method of protecting the project owner's interest relative to performance bonds. He also indicates that 10% of contract value is a typical amount for a bank guaranty, but can range from 5-25%. Finally, the author highlights several project oversight activities that should accompany bank guaranties.
Ruwanpura, Janaka Y. and Ariaratnam, Samuel T. "Bonding Procedures for North American and International Construction Contracts". <i>Engineering Management Journal</i> . 11.2 (1999):28 -34. Print.	Summarizes differences between U.S. style bonds and international bonds. Contains good definitions of payment, performance and maintenance bonds. There is some discussion of bonding capacity, but it does not focus on bank guaranties. The author questions whether 10% bank guaranty is sufficient to cover costs of a default, but does not provide evidence or recommendations.
Dunn, Jonathan J, Knoll, Jocelyn and Dempsey, Megan. "Letters of Credit in Construction Projects". <i>The Construction Lawyer</i> . 29.1 (2009): 9	Defines various aspects of the Letter of Credit, which is a legal instrument often used as the form of bank guaranty. Concludes that LOC is beneficial to the owner in that it is easier to collect the funds from the bank guarantor than from a traditional bond surety. However, the authors question whether an LOC provides the same scope of protection as the 100% performance and payment bond.
Friedlander, Mark C. "Contractors' Construction Warranties". www.schiffhardin.com . Web.	Reviews elements of construction warranties, including a discussion of repair or maintenance warranties typically included in a construction contract. Does not discuss bonding, only that the contract may require a contractor to return to the site to repair damages.



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